

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary

Tony Delfin  
Deputy Cabinet Secretary

David R. Catanach, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 11-12-15

Well information;

Operator WPX, Well Name and Number Kimbeta Wash Unit #797H

API# 30-045-35732, Section 30 Township 23 (N/S), Range 09 (E/W)

Conditions of Approval: (See the below checked and handwritten conditions)

- Notify Aztec OCD 24hrs prior to casing & cement.
- Hold C-104 for directional survey & "As Drilled" Plat
- Hold C-104 for NSL, NSP, DHC
- Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charles Pen  
NMOCD Approved by Signature

4-29-2016  
Date KC

RECEIVED

APR 18 2016

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NMNM 117577  
6. If Indian, Allottee or Tribe Name

1a. Type of Work:  DRILL  REENTER  
1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

7. If Unit or CA Agreement, Name and No.  
Kimbeto Wash Unit  
8. Lease Name and Well No.  
KWU #787H

2. Name of Operator  
WPX Energy Production, LLC

9. API Well No.  
30-045-35732

3a. Address  
P.O. Box 640 Aztec, NM 87410

3b. Phone No. (include area code)  
(505) 333-1808

10. Field and Pool, or Exploratory  
Basin Mancos

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface 661' FNL & 484' FWL, sec 30, T23N, R9W  
At proposed prod. zone 1747' FSL & 330' FEL, sec 30 T23N, R9W

11. Sec., T., R., M., or Blk. and Survey or Area  
SHL: Sec 30, T23N, R9W  
BHL: Sec 30, T23N, R9W  
NWNW  
NESE

14. Distance in miles and direction from nearest town or post office\*  
From intersection US Hwy & 550 US Hwy 64 in Bloomfield NM, South 35.9 miles to Mile Marker 115.7

12. County or Parish  
San Juan  
13. State  
NM

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 484'

16. No. of Acres in lease  
1279.75 Acres

17. Spacing Unit dedicated to this well  
960.22-Acres

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.  
20'

19. Proposed Depth  
10444' MD / 4386' TVD

20. BLM/BIA Bond No. on file  
UTB000178

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6596' GR

22. Approximate date work will start\*  
December 1, 2015

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 *Marie E. Jaramillo* Name (Printed/Typed) Marie E. Jaramillo Date 11/12/15

Title Permit Technician III Approved by (Signature) *[Signature]* Name (Printed/Typed) Office Date 9/14/16

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 BLM and is on lease and will be twinned with the KWU #789H and KWU #791H.

This location has been archaeologically surveyed by Western Cultural Resources. Copies of their report have been submitted directly to the BLM, FIMO, BIA and NNHPD.

The new access of 220.5' of BLM is Onlease access road will be built and permitted via the APD.

A new 11807.2' BLM on lease & 9677' IA on lease well connect pipeline will be built and permitted via the APD.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

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

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

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 <b>30-045-35732</b>		*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code <b>316144</b>	*Property Name <i>Rimbeto Wash Unit</i>		*Well Number 787H
*OGRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6596'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	30	23N	9W	1	661	NORTH	484	WEST	SAN JUAN

<sup>11</sup> 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	30	23N	9W		1747	SOUTH	330	EAST	SAN JUAN

<sup>12</sup> Dedicated Acres 960.22	S/2 - Section 19 Entire Section 30	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

POINT-OF-ENTRY  
214' FSL 1241' FWL  
SECTION 19, T23N, R9W  
LAT: 36.205732° N  
LONG: 107.834173° W  
DATUM: NAD1927

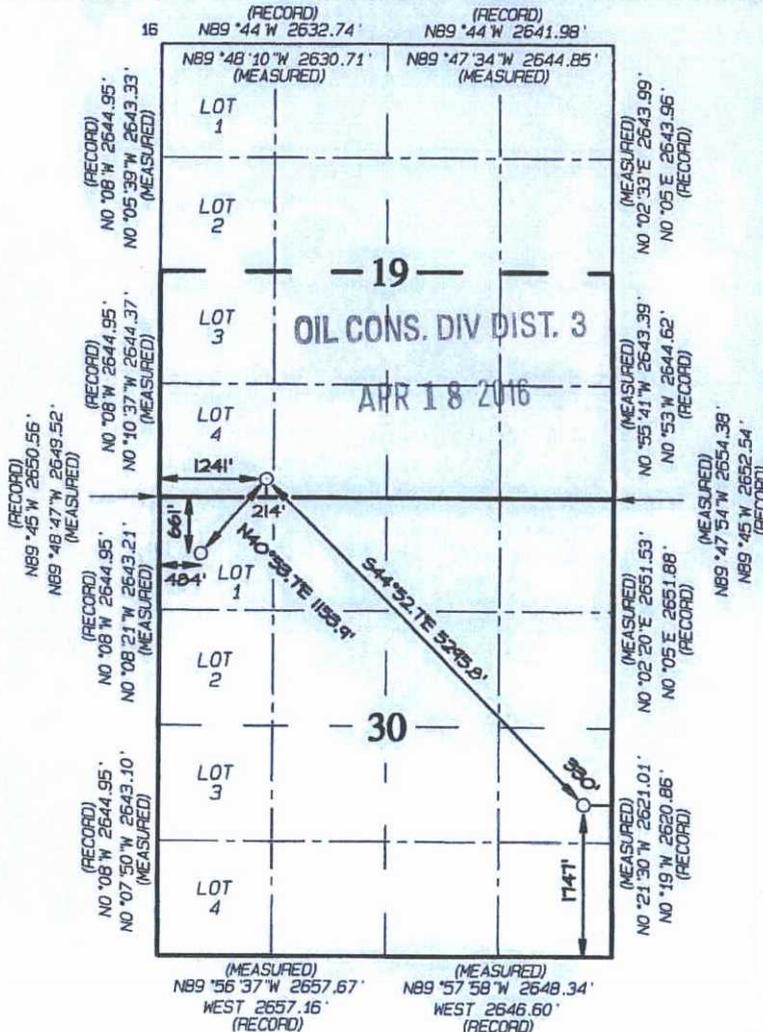
LAT: 36.205745° N  
LONG: 107.834789° W  
DATUM: NAD1983

SURFACE LOCATION  
661' FNL 484' FWL  
SECTION 30, T23N, R9W  
LAT: 36.203336° N  
LONG: 107.836733° W  
DATUM: NAD1927

LAT: 36.203349° N  
LONG: 107.837349° W  
DATUM: NAD1983

END-OF-LATERAL  
1747' FSL 330' FEL  
SECTION 30, T23N, R9W  
LAT: 36.195423° N  
LONG: 107.821509° W  
DATUM: NAD1927

LAT: 36.195436° N  
LONG: 107.822124° W  
DATUM: NAD1983



<sup>17</sup> 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.

*Marie E. Jaramillo* 11/12/15  
Signature Date

Marie E. Jaramillo  
Printed Name  
marie.jaramillo@wpxenergy.com  
E-mail Address

<sup>18</sup> 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: NOVEMBER 5, 2015  
Date of Survey: JULY 15, 2015

Signature and Seal of Professional Surveyor



JASON C. EDWARDS  
Certificate Number 15269



### III. MATERIALS

#### A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	5,147.97	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	4997.97 - 10,444.00	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 4997.97	4.5"	11.6 LBS	P-110 or equiv	LTC

#### B. FLOAT EQUIPMENT:

- SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
- INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
- PRODUCTION LINER: Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + 1 RSI (Sliding Sleeve) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.

#### C. CEMENTING:

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

1. Surface 5 bbl Fresh Water Spacer, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ Bbls). TOC at Surface.
2. Intermediate 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: +/- 700 sx Foamed 50/50 Poz Cement. 13.0 ppg + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 (Yield :1.43 cu-ft/ sk. / Vol: 1001 cu-ft / 178.3 Bbls.) + TAIL: 100 sx 13.5 #/gal. + 0.2% Versaset + 0.15% HALAD-766 (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft / 22.8 Bbls.). + Fresh Water Displacement (1,362 cu-ft / +/- 242 Bbls) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk / (Vol: 117 cu-ft / 20.8 Bbls). WOC 12 hrs. Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (900 sx / 1246 cu-ft / 222 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.
3. PROD. LINER: Spacer #1:10 bbl (56.cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem™ System. Yield 1.36 cuft/sk 13.3 ppg (533 sx /725 cuft /129 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (533 sx /725bbls).



# **WPX Energy**

T23N R9W

KWU 2309-30D

KWU 2309-30D #787H - Slot A2

Wellbore #1

Plan: Design #1 16Oct15 sam

## **Standard Planning Report**

22 October, 2015

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well KWU 2309-30D #787H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	GL @ 6596.00usft (Original Well Elev)
<b>Project:</b>	T23N R9W	<b>MD Reference:</b>	GL @ 6596.00usft (Original Well Elev)
<b>Site:</b>	KWU 2309-30D	<b>North Reference:</b>	True
<b>Well:</b>	KWU 2309-30D #787H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 16Oct15 sam		

<b>Project</b>	T23N R9W		
<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 West 3003		

<b>Site</b>	KWU 2309-30D				
<b>Site Position:</b>	<b>Northing:</b>	1,893,257.11 usft	<b>Latitude:</b>	36.203340	
<b>From:</b>	Map	<b>Easting:</b>	498,977.22 usft	<b>Longitude:</b>	-107.836800
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.00 °

<b>Well</b>	KWU 2309-30D #787H - Slot A2					
<b>Well Position</b>	<b>+N/-S</b>	-1.46 usft	<b>Northing:</b>	1,893,255.65 usft	<b>Latitude:</b>	36.203336
	<b>+E/-W</b>	19.77 usft	<b>Easting:</b>	498,996.99 usft	<b>Longitude:</b>	-107.836733
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	6,596.00 usft	

<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 (nT)</b>
	IGRF200510	12/31/2009	10.02	63.03	50,589

<b>Design</b>	Design #1 16Oct15 sam			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (bearing)</b>
	0.00	0.00	0.00	122.67

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,850.20	27.00	6.73	1,800.76	310.18	36.59	2.00	2.00	0.00	6.73	
3,876.73	27.00	6.73	3,606.35	1,224.00	144.39	0.00	0.00	0.00	0.00	
4,747.71	60.00	135.12	4,328.41	1,139.53	489.22	9.00	3.79	14.74	136.14	Start 60 tan #787H
4,807.71	60.00	135.12	4,358.41	1,102.71	525.89	0.00	0.00	0.00	0.00	End 60 tan #787H
4,980.72	75.57	135.12	4,423.62	989.56	638.56	9.00	9.00	0.00	0.00	
5,147.97	90.62	135.12	4,443.66	872.25	755.39	9.00	9.00	0.00	0.00	POE #787H
10,444.00	90.62	135.12	4,386.00	-2,880.21	4,492.18	0.00	0.00	0.00	0.00	BHL #787H

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well KWU 2309-30D #787H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	GL @ 6596.00usft (Original Well Elev)
<b>Project:</b>	T23N R9W	<b>MD Reference:</b>	GL @ 6596.00usft (Original Well Elev)
<b>Site:</b>	KWU 2309-30D	<b>North Reference:</b>	True
<b>Well:</b>	KWU 2309-30D #787H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 16Oct15 sam		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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	
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>9 5/8"</b>										
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Start Build 2.00</b>										
1,000.00	10.00	6.73	997.47	43.22	5.10	-19.04	2.00	2.00	0.00	
1,500.00	20.00	6.73	1,479.82	171.58	20.24	-75.57	2.00	2.00	0.00	
1,850.20	27.00	6.73	1,800.76	310.18	36.59	-136.62	2.00	2.00	0.00	
<b>Hold 27.00 Inclination</b>										
2,000.00	27.00	6.73	1,934.23	377.73	44.56	-166.37	0.00	0.00	0.00	
2,500.00	27.00	6.73	2,379.72	603.20	71.15	-265.67	0.00	0.00	0.00	
3,000.00	27.00	6.73	2,825.21	828.66	97.75	-364.98	0.00	0.00	0.00	
3,500.00	27.00	6.73	3,270.70	1,054.12	124.35	-464.28	0.00	0.00	0.00	
3,876.73	27.00	6.73	3,606.35	1,224.00	144.39	-539.10	0.00	0.00	0.00	
<b>Start Build DLS 9.00 TFO 136.14</b>										
4,000.00	20.39	29.23	3,719.39	1,270.68	158.19	-552.67	9.00	-5.36	18.25	
4,500.00	39.76	122.68	4,169.26	1,259.82	345.03	-389.53	9.00	3.87	18.69	
4,747.71	60.00	135.12	4,328.41	1,139.53	489.22	-203.22	9.00	8.17	5.02	
<b>Hold 60.00 Inclination</b>										
4,807.71	60.00	135.12	4,358.41	1,102.71	525.89	-152.48	0.00	0.00	0.00	
<b>Start Build DLS 9.00 TFO 0.00</b>										
4,980.72	75.57	135.12	4,423.62	989.56	638.56	3.45	9.00	9.00	0.00	
<b>Start DLS 9.00 TFO 0.00</b>										
5,000.00	77.31	135.12	4,428.14	976.29	651.79	21.75	9.00	9.00	0.00	
5,147.97	90.62	135.12	4,443.66	872.25	755.39	165.11	9.00	9.00	0.00	
<b>POE at 90.62 Inc 135.12 deg</b>										
5,148.00	90.62	135.12	4,443.66	872.23	755.41	165.14	0.00	0.00	0.00	
<b>7"</b>										
5,500.00	90.62	135.12	4,439.83	622.82	1,003.77	508.84	0.00	0.00	0.00	
6,000.00	90.62	135.12	4,434.38	268.55	1,356.57	997.04	0.00	0.00	0.00	
6,500.00	90.62	135.12	4,428.94	-85.72	1,709.36	1,485.25	0.00	0.00	0.00	
7,000.00	90.62	135.12	4,423.50	-439.99	2,062.15	1,973.46	0.00	0.00	0.00	
7,500.00	90.62	135.12	4,418.05	-794.26	2,414.94	2,461.66	0.00	0.00	0.00	
8,000.00	90.62	135.12	4,412.61	-1,148.53	2,767.73	2,949.87	0.00	0.00	0.00	
8,500.00	90.62	135.12	4,407.17	-1,502.80	3,120.53	3,438.08	0.00	0.00	0.00	
9,000.00	90.62	135.12	4,401.72	-1,857.08	3,473.32	3,926.28	0.00	0.00	0.00	
9,500.00	90.62	135.12	4,396.28	-2,211.35	3,826.11	4,414.49	0.00	0.00	0.00	
10,000.00	90.62	135.12	4,390.83	-2,565.62	4,178.90	4,902.70	0.00	0.00	0.00	
10,444.00	90.62	135.12	4,386.00	-2,880.21	4,492.18	5,336.23	0.00	0.00	0.00	
<b>TD at 10444.00</b>										

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well KWU 2309-30D #787H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	GL @ 6596.00usft (Original Well Elev)
<b>Project:</b>	T23N R9W	<b>MD Reference:</b>	GL @ 6596.00usft (Original Well Elev)
<b>Site:</b>	KWU 2309-30D	<b>North Reference:</b>	True
<b>Well:</b>	KWU 2309-30D #787H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 16Oct15 sam		

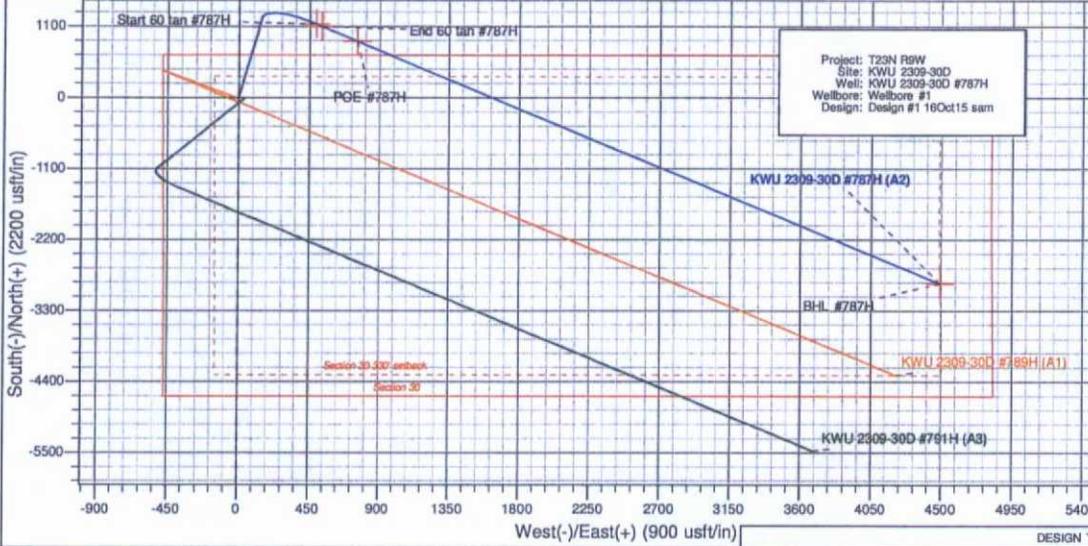
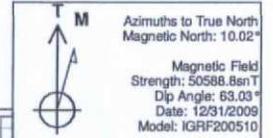
Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 tan #787H - plan hits target center - Point	0.00	0.00	4,328.41	1,139.53	489.22	1,894,395.17	499,486.25	36.206467	-107.835075
End 60 tan #787H - plan hits target center - Point	0.00	0.00	4,358.41	1,102.71	525.89	1,894,358.34	499,522.92	36.206365	-107.834951
BHL #787H - plan hits target center - Point	0.00	0.00	4,386.00	-2,880.21	4,492.18	1,890,375.28	503,489.07	36.195423	-107.821509
POE #787H - plan hits target center - Point	0.00	0.00	4,443.66	872.25	755.39	1,894,127.88	499,752.41	36.205732	-107.834173

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)	
320.00	320.00	9 5/8"		9.625	12.250	
5,148.00	4,443.66	7"		7.000	8.750	

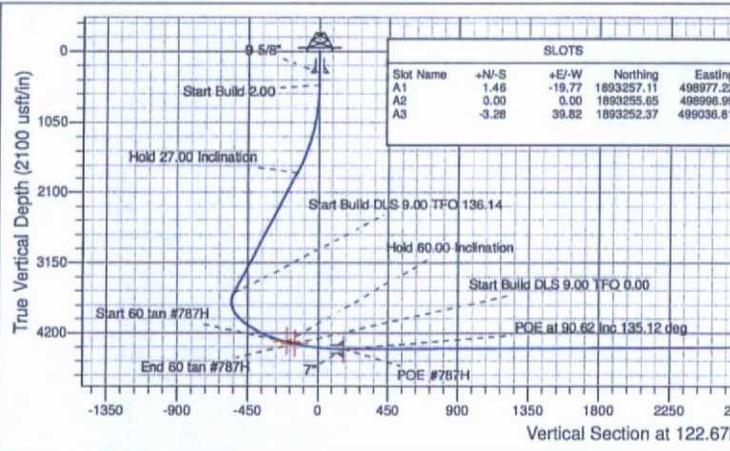
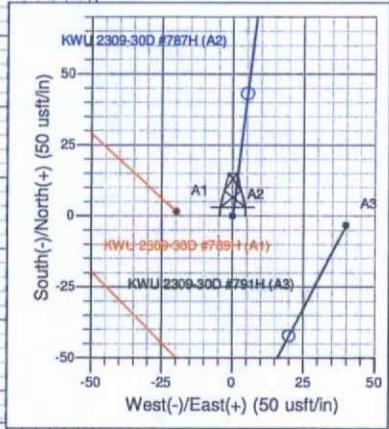
Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
500.00	500.00	0.00	0.00	Start Build 2.00	
1,850.20	1,800.76	310.18	36.59	Hold 27.00 Inclination	
3,876.73	3,606.35	1,224.00	144.39	Start Build DLS 9.00 TFO 136.14	
4,747.71	4,328.41	1,139.53	489.22	Hold 60.00 Inclination	
4,807.71	4,358.41	1,102.71	525.89	Start Build DLS 9.00 TFO 0.00	
4,980.72	4,423.62	989.56	638.56	Start DLS 9.00 TFO 0.00	
5,147.97	4,443.66	872.25	755.39	POE at 90.62 Inc 135.12 deg	
10,444.00	4,386.00	-2,880.21	4,492.18	TD at 10444.00	



Well Name: KWU 2309-30D #787H  
 Surface Location: KWU 2309-30D  
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003  
 Ground Elevation: 6596.00  
 +N/-S 0.00 +E/-W 0.00 Northing 1893255.65 Easting 498996.99 Latitude 36.203336 Longitude -107.836733 Slot A2  
 GL @ 6596.00usft (Original Well Elev)



Project: T23N R9W  
 Site: KWU 2309-30D  
 Well: KWU 2309-30D #787H  
 Wellbore: Wellbore #1  
 Design: Design #1 16Oct15 sam



Slot Name	+N/-S	+E/-W	Northing	Easting
A1	1.46	-19.77	1893257.11	498977.22
A2	0.00	0.00	1893255.65	498996.99
A3	-3.28	39.82	1893252.37	499036.81

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 lan #787H	4328.41	1139.53	489.22	1894395.15	499486.25	36.206466	-107.855075	Point
End 60 lan #787H								
BHL #787H	4358.41	1102.71	525.89	1894358.34	499522.92	36.206365	-107.834950	Point
POE #787H	4443.66	872.25	755.39	1894127.87	499752.41	36.195423	-107.821509	Point

ANNOTATIONS								
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSection	Departure	Annotation
500.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1800.76	1650.20	27.00	6.73	310.18	36.59	-136.62	312.33	Hold 27.00 Inclination
3606.35	3876.73	27.00	6.73	1224.00	144.39	-539.10	1232.48	Start Build DLS 9.00 TFO 136.14
4328.41	4747.71	60.00	135.12	1139.53	489.22	-203.22	1680.49	Hold 60.00 Inclination
4358.41	4607.71	60.00	135.12	1102.71	525.89	-152.48	1732.45	Start Build DLS 9.00 TFO 0.00
4423.62	4980.72	75.57	135.12	989.56	638.58	3.45	1692.13	Start DLS 9.00 TFO 0.00
4443.66	5147.97	90.62	135.12	872.25	755.39	165.11	2057.69	POE at 90.62 Inc 135.12 deg
4386.00	10444.00	90.62	135.12	-2880.21	4492.18	5336.23	7353.41	TD at 10444.00

- 10 feet at the southwest corner, and a cut of 5 feet at the southeast corner to create a level well pad. No additional surfacing materials will be required for construction.
4. As determined during the onsite on September 30, 2015, the following best management practices will be implemented:
    - a. Diversions will be installed upon reclamation.
    - b. No additional fill would be required to construct the pad.
    - c. A 24-inch culvert will be required at the beginning of the proposed access road.
  5. All project activities will be confined to permitted areas only.
  6. Construction equipment may include chain saws, a brush hog, scraper, maintainer, excavator, and a dozer.
  7. If drilling has not been initiated on the well pad within 120 days of the well pad being constructed, the operator will consult with the BLM to address a site-stabilization plan.

D. Production Facilities

1. As practical, access will be a teardrop-shaped road through the production area so that the center may be revegetated.
2. Within 90 days of installation, production facilities would be painted Juniper Green to blend with the natural color of the landscape and would be located, to the extent practical, to reasonably minimize visual impact.
3. Berms will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks. Berm walls will be compacted with appropriate equipment to assure containment.

After the completion phases and pipeline installation, portions of the project area not needed for operation will be reclaimed. When the wells are plugged, final reclamation will occur within the remainder of the project area. Reclamation is described in detail in the Reclamation Plan (Appendix C).

## 7.0 Methods for Handling Waste

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✓ A. Cuttings

1. Drilling operations will utilize a closed-loop system. Drilling of the horizontal laterals will be accomplished with water-based mud. All cuttings will be placed in roll-off bins and hauled to a commercial disposal facility or land farm. WPX will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.
2. Closed-loop tanks will be adequately sized for containment of all fluids.

B. Drilling Fluids

1. Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids will be hauled to a commercial disposal facility.

C. Spills

1. Any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.

D. Sewage

1. Portable toilets will be provided and maintained during construction, as needed (see Figure 4 in Appendix B for the location of toilets).

**Directions from the Intersection of US Hwy 550 & US Hwy 64**  
**in Bloomfield, NM to WPX Energy Production, LLC KWU #787H**  
**661' FNL & 484' FWL, Section 30, T23N, R9W, N.M.P.M., San Juan County, NM**

**Latitude: 36.203349°N Longitude: 107.837349°W Datum: NAD1983**

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 35.9 miles to Mile Marker 115.7:

Go Right (South-westerly) @ Nageezi Post Office on County Road #7800 for 0.4 miles to 4-way intersection:

Go Right (North-westerly) remaining on paved County Road #7800 for 3.6 miles to where pavement ends:

Go Straight (South-westerly) continuing on dirt portion of County Road #7800 for 1.2 miles to fork in roadway:

Go Left (Southerly) which is straight for 3.0 miles to begin proposed access on right-hand side of County Road #7800 which continues for 220.5' to staked WPX KWU #787H location.

3,000 PSI rated Choke system

