

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

Ken McQueen  
Cabinet Secretary

Matthias Sayer  
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: 8-2-16

Well information;

Operator WOPX, Well Name and Number Kimbeta Wash Unit # 783H

API# 30045-35795, Section 19, Township 23 N/S, Range 9 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

4-25-2017  
Date

Lessee: XTO Energy  
3/8/16

10400001212

Form 3160-3  
(March 2012)

NOS: \_\_\_\_\_  
ADDP: \_\_\_\_\_  
MP: \_\_\_\_\_  
SMA: BLM  
BOND: 12,000  
CA/PA: Kline

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NMNM117577  
6. If Indian, Allottee or Tribe Name

1a. Type of work:  DRILL  REENTER

7. If Unit or CA Agreement, Name and No.  
/1/KIMBETO WASH UNIT / NMNM13525

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

8. Lease Name and Well No.  
KWU / 783H

2. Name of Operator  
WPX ENERGY LLC

9. API Well No.  
30-015-35795

3a. Address  
720 S MAIN AZTEC NM 87410

3b. Phone No. (include area code)  
(505)333-1822

10. Field and Pool, or Exploratory  
BASIN MANCOS

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface <sup>B</sup> LOT 0 / 42 FSL / 480 FEL / LAT 36.20524 / LONG -107.822648  
At proposed prod. zone <sup>D</sup> LOT 0 / 750 FNL / 330 FWL / LAT 36.217632 / LONG -107.837915

11. Sec., T. R. M. or Blk. and Survey or Area  
SEC 19 / T23N / R9W / NMP

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

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)  
20 feet

16. No. of acres in lease  
1279.75

17. Spacing Unit dedicated to this well  
639.29  
OIL CONS. DIV DIST. 3

18. Distance from proposed location\* to nearest well, drilling, completed, 42 feet applied for, on this lease, ft.

19. Proposed Depth  
4421 feet / 11235 feet

20. BLM/BIA Bond No. on file  
FED: UTB000178  
APR 17 2017

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6564 feet

22. Approximate date work will start\*  
09/01/2016

23. Estimated duration  
30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must 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 BLM.

25. Signature  
(Electronic Submission)

Name (Printed/Typed)  
Lacey Granillo / Ph: (505)333-1816

Date  
08/02/2016

Title  
Permitting Tech III

Approved by (Signature)  
*Arthur A. Gallgoe*

Name (Printed/Typed)  
ARTHUR A. GALLGOE

Date  
4/10/2017

Title  
AFM - MINERALS

Office  
FARMINGTON

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.

(Continued on page 2)

\*(Instructions on page 2)

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

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

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

NMOCD PV





## WPX Energy

### Operations Plan

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

**Date:** July 6, 2016  
**Well Name:** KWU #783H  
**SH Location:** SESE Sec 19 23N-09W  
**BH Location:** NWNW Sec 19 23N-09W

**Field:** Basin Mancos  
**Surface:** BLM  
**Elevation:** 6564' GR  
**Minerals:** FED

**Measured Depth:** 11,234.98'

## **I. GEOLOGY**

Surface formation - OJO ALAMO/ NACIMIENTO

### **A. FORMATION TOPS: (GR)**

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	86	86	POINT LOOKOUT	3226	3153
KIRTLAND	248	248	MANCOS	3409	3328
PICTURED CLIFFS	816	816	GALLUP	3760	3667
LEWIS	900	900	KICKOFF POINT	3,623.14	3,533.15
CHACRA	1117	1117	TOP TARGET	4805	4397
CLIFF HOUSE	2254	2224	LANDING POINT	4,910.63	4,406.00
MENELEE	2272	2241	BASE TARGET	4,910.63	4,406.00
			TD	11,234.98	4,421.00

### **B. MUD LOGGING PROGRAM:**

Mudlogger on location from surface csg to TD.

### **C. LOGGING PROGRAM:**

LWD GR from surface casing 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 mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 3/4" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

### **B. BOP TESTING:**

While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The BOPE will be tested to 2,000 psi (High) for 10 minutes and the annular tested to 1,500 psi for 10 minutes. Pressure test surface casing to 1,500 psi for 30 minutes and intermediate casing to 1,500 psi for 30 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. 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)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320.00'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	4,910.63'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	4760.63' - 11,234.98'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 4760.63'	4.5"	11.6 LBS	P-110 or equiv	LTC

#### 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) 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. If losses are encountered during the drilling of the intermediate section a DV tool will be utilized and a 2 stage cement job may be planned to ensure cement circ back to surface. The DV tool will be placed 100' above the top of the Chacra formation. If cement is circulated back to surface on the first stage, a cancelation device will be dropped to shift the dv tool closed and the 2nd stage cement job will be aborted at that time, if no cement is seen at surface on the 1st stage the stage tool will be opened and a 2nd stage cement job will be pumped.

##### 3. 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. CEMENT:

*(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:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 86 bbls, 244 sks, (481 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 59 bbls, 254 sks, (331 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 193 bbl Drilling mud or water. Total Cement: 145 bbls, 499 sks, (812 cuft)

3. Prod Liner:

Spacer #1: 10 bbl (56 cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Toned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem™ System. Yield 1.36 cuft/sk 13.3 ppg (634 sx /863 cuft /154 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-150bbl Fr Water. Total Cement (634 sx /863bbls).

**D. COMPLETION:**

Run CCL for perforating

**A. PRESSURE TEST:**

1. Pressure test 4-1/2" casing to 4500 psi max, hold at 1500 psi for 30 minutes. Increase pressure to Open RSI sleeves.

**B. STIMULATION:**

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N2 for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs and flowback lateral.

**C. RUNNING TUBING:**

1. Production Tubing: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing near Top of Liner.

If this horizontal well is drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 B(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 B(2) NMAC, 19.15.16.15 B(2) NMAC, and 19.15.16.15. B(4) NMAC.

---

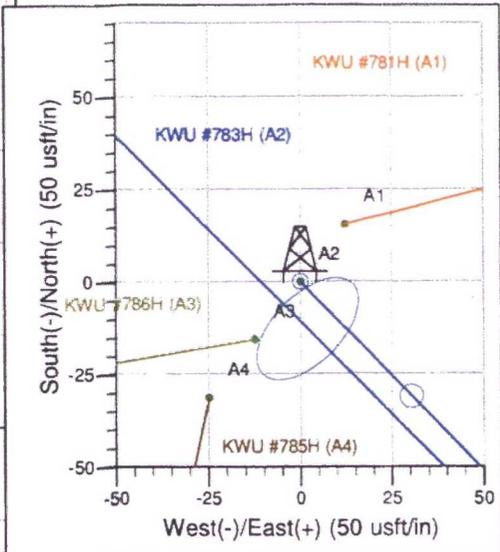
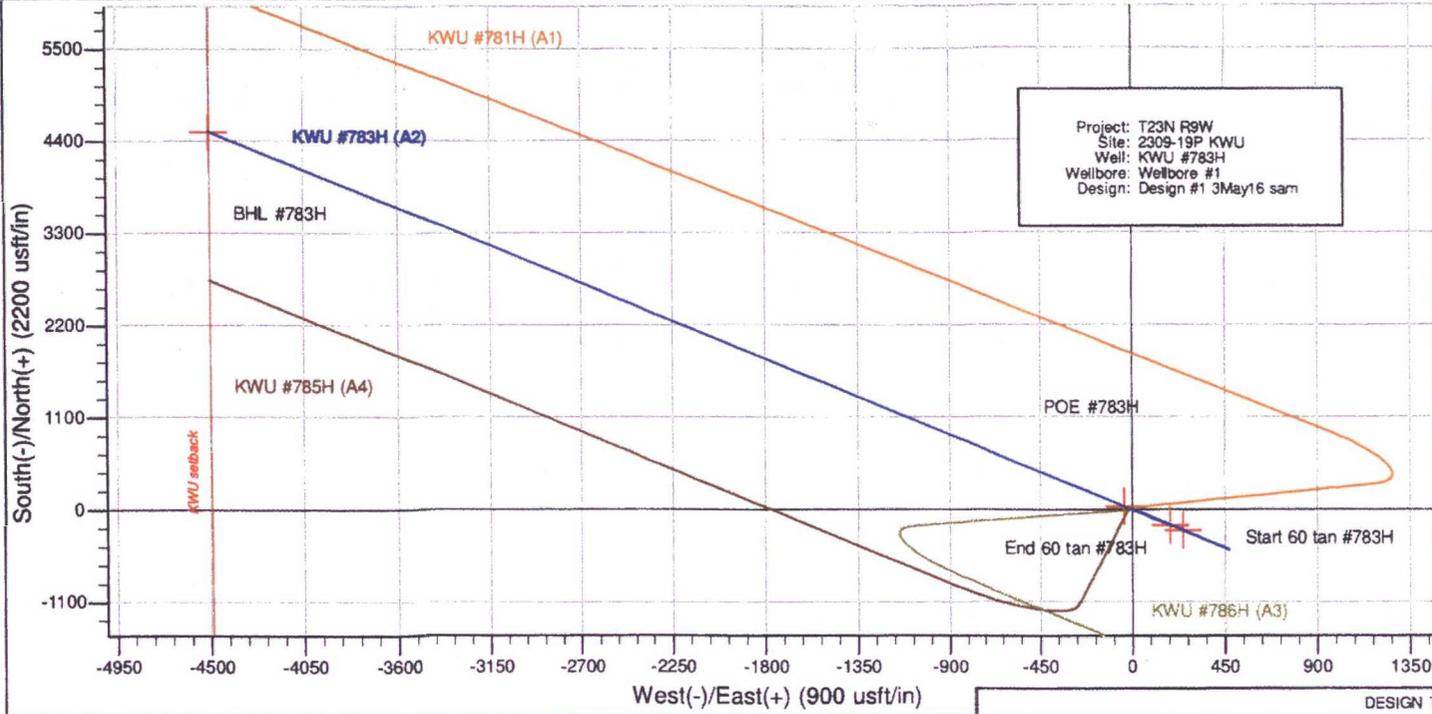
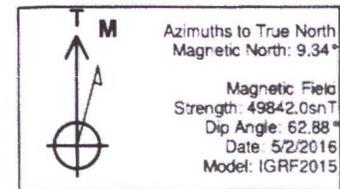
**NOTES:**

A 4-1/2" 11.6# P-110 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# J-55 Intermediate casing with a Liner Hanger and pack-off assembly then cemented to top of liner hanger.

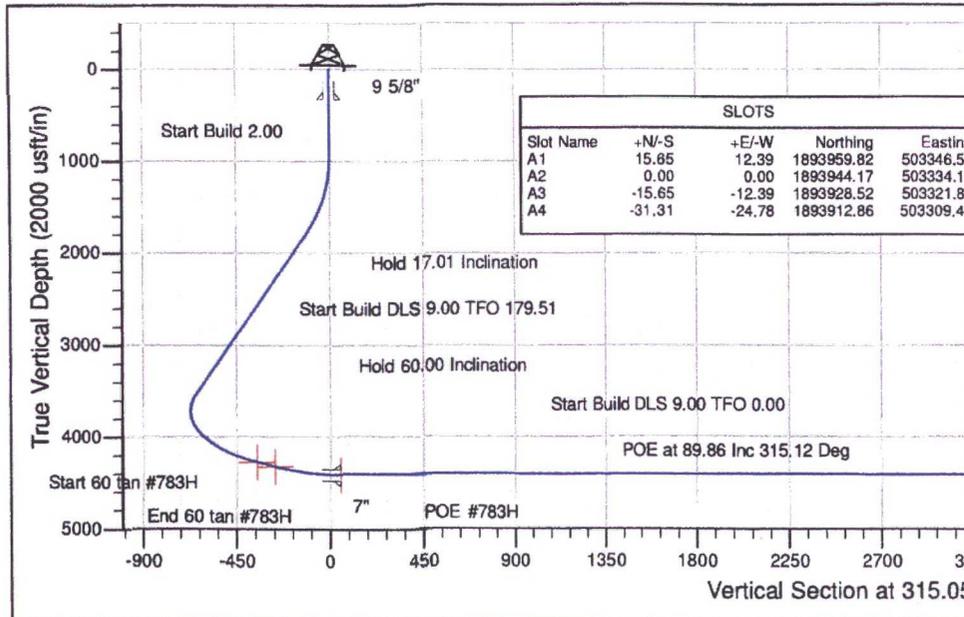
After cementing and TOL clean up operations are complete, the TOL will be tested to 1500 psi (per BLM).



Well Name: KWU #783H  
 Surface Location: 2309-19P KWU  
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003  
 Ground Elevation: 6564.00  
 +N/-S 0.00    +E/-W 0.00    Northing 1893944.17    Easting 503334.19    Latitude 36.205227    Longitude -107.822032    Slot A2  
 GL @ 6564.00usft (Original Well Elev)



Project: T23N R9W  
 Site: 2309-19P KWU  
 Well: KWU #783H  
 Wellbore: Wellbore #1  
 Design: Design #1 3May16 sam



DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
Start 60 tan #783H	4270.71	-255.80	243.99	1893688.40	503578.21	36.204524	-107.821205	Point	
End 60 tan #783H	4320.71	-194.43	182.88	1893749.76	503517.09	36.204693	-107.821412	Point	
POE #783H	4406.00	30.04	-40.67	1893974.21	503293.52	36.205310	-107.822170	Point	
BHL #783H	4421.00	4511.29	-4503.34	1898454.94	498830.32	36.217619	-107.837299	Point	

SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
A1	15.85	12.39	1893959.82	503346.58
A2	0.00	0.00	1893944.17	503334.19
A3	-15.65	-12.39	1893928.52	503321.80
A4	-31.31	-24.78	1893912.86	503309.41

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation	
1000.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00	
1838.10	1850.54	17.01	135.67	-89.66	87.58	-125.33	125.34	Hold 17.01 Inclination	
3533.15	3623.14	17.01	135.67	-460.61	449.96	-643.87	643.91	Start Build DLS 9.00 TFO 179.51	
4270.71	4478.81	60.00	315.12	-255.80	243.99	-353.41	990.81	Hold 60.00 Inclination	
4320.71	4578.81	60.00	315.12	-194.44	182.88	-266.81	1077.41	Start Build DLS 9.00 TFO 0.00	
4384.40	4745.81	75.03	315.12	-85.41	74.31	-112.94	1231.28	Start Build DLS 9.00 TFO 0.00	
4406.00	4910.63	89.86	315.12	30.04	-40.67	49.99	1394.22	POE at 89.86 Inc 315.12 Deg	
4421.00	11234.98	89.86	315.12	4511.29	-4503.34	6374.31	7718.54	TD at 11234.98	

# **WPX Energy**

**T23N R9W**

**2309-19P KWU**

**KWU #783H - Slot A2**

**Wellbore #1**

**Plan: Design #1 3May16 sam**

## **Standard Planning Report**

**03 May, 2016**

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well KWU #783H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	GL @ 6564.00usft (Original Well Elev)
<b>Project:</b>	T23N R9W	<b>MD Reference:</b>	GL @ 6564.00usft (Original Well Elev)
<b>Site:</b>	2309-19P KWU	<b>North Reference:</b>	True
<b>Well:</b>	KWU #783H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 3May16 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>	2309-19P KWU				
<b>Site Position:</b>		<b>Northing:</b>	1,893,959.82 usft	<b>Latitude:</b>	36.205270
<b>From:</b>	Map	<b>Easting:</b>	503,346.58 usft	<b>Longitude:</b>	-107.821990
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.01 °

<b>Well</b>	KWU #783H - Slot A2					
<b>Well Position</b>	<b>+N/-S</b>	-15.65 usft	<b>Northing:</b>	1,893,944.17 usft	<b>Latitude:</b>	36.205227
	<b>+E/-W</b>	-12.39 usft	<b>Easting:</b>	503,334.19 usft	<b>Longitude:</b>	-107.822032
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	6,564.00 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</b>
	IGRF2015	5/2/2016	(°)	(°)	(nT)
			9.34	62.88	49,842

<b>Design</b>	Design #1 3May16 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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(bearing)
	0.00	0.00	0.00	315.05

<b>Plan Sections</b>										
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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,850.54	17.01	135.67	1,838.10	-89.66	87.58	2.00	2.00	0.00	135.67	
3,623.14	17.01	135.67	3,533.15	-460.61	449.96	0.00	0.00	0.00	0.00	
4,478.81	60.00	315.12	4,270.71	-255.80	243.99	9.00	5.02	20.97	179.51	Start 60 tan #783H
4,578.81	60.00	315.12	4,320.71	-194.44	182.88	0.00	0.00	0.00	0.00	End 60 tan #783H
4,745.81	75.03	315.12	4,384.40	-85.41	74.31	9.00	9.00	0.00	0.00	
4,910.63	89.86	315.12	4,406.00	30.04	-40.67	9.00	9.00	0.00	0.00	POE #783H
11,234.98	89.86	315.12	4,421.00	4,511.29	-4,503.34	0.00	0.00	0.00	0.00	BHL #783H

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well KWU #783H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	GL @ 6564.00usft (Original Well Elev)
<b>Project:</b>	T23N R9W	<b>MD Reference:</b>	GL @ 6564.00usft (Original Well Elev)
<b>Site:</b>	2309-19P KWU	<b>North Reference:</b>	True
<b>Well:</b>	KWU #783H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 3May16 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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Start Build 2.00</b>										
1,500.00	10.00	135.67	1,497.47	-31.13	30.41	-43.52	2.00	2.00	0.00	
1,850.54	17.01	135.67	1,838.10	-89.66	87.58	-125.33	2.00	2.00	0.00	
<b>Hold 17.01 Inclination</b>										
2,000.00	17.01	135.67	1,981.02	-120.93	118.14	-169.05	0.00	0.00	0.00	
2,500.00	17.01	135.67	2,459.15	-225.57	220.35	-315.32	0.00	0.00	0.00	
3,000.00	17.01	135.67	2,937.27	-330.20	322.57	-461.59	0.00	0.00	0.00	
3,500.00	17.01	135.67	3,415.40	-434.84	424.78	-607.85	0.00	0.00	0.00	
3,623.14	17.01	135.67	3,533.15	-460.61	449.96	-643.87	0.00	0.00	0.00	
<b>Start Build DLS 9.00 TFO 179.51</b>										
4,000.00	16.91	314.73	3,904.53	-461.50	449.53	-644.21	9.00	-0.03	47.51	
4,478.81	60.00	315.12	4,270.71	-255.80	243.99	-353.41	9.00	9.00	0.08	
<b>Hold 60.00 Inclination</b>										
4,500.00	60.00	315.12	4,281.31	-242.79	231.04	-335.06	0.00	0.00	0.00	
4,578.81	60.00	315.12	4,320.71	-194.44	182.88	-266.81	0.00	0.00	0.00	
<b>Start Build DLS 9.00 TFO 0.00</b>										
4,745.81	75.03	315.12	4,384.40	-85.41	74.31	-112.94	9.00	9.00	0.00	
<b>Start DLS 9.00 TFO 0.00</b>										
4,910.63	89.86	315.12	4,406.00	30.04	-40.67	49.99	9.00	9.00	0.00	
<b>POE at 89.86 Inc 315.12 Deg</b>										
4,911.00	89.86	315.12	4,406.00	30.30	-40.93	50.36	0.00	0.00	0.00	
<b>7"</b>										
5,000.00	89.86	315.12	4,406.21	93.37	-103.73	139.36	0.00	0.00	0.00	
5,500.00	89.86	315.12	4,407.40	447.65	-456.54	639.36	0.00	0.00	0.00	
6,000.00	89.86	315.12	4,408.58	801.94	-809.36	1,139.36	0.00	0.00	0.00	
6,500.00	89.86	315.12	4,409.77	1,156.22	-1,162.18	1,639.36	0.00	0.00	0.00	
7,000.00	89.86	315.12	4,410.96	1,510.51	-1,515.00	2,139.35	0.00	0.00	0.00	
7,500.00	89.86	315.12	4,412.14	1,864.80	-1,867.81	2,639.35	0.00	0.00	0.00	
8,000.00	89.86	315.12	4,413.33	2,219.08	-2,220.63	3,139.35	0.00	0.00	0.00	
8,500.00	89.86	315.12	4,414.51	2,573.37	-2,573.45	3,639.35	0.00	0.00	0.00	
9,000.00	89.86	315.12	4,415.70	2,927.65	-2,926.27	4,139.35	0.00	0.00	0.00	
9,500.00	89.86	315.12	4,416.89	3,281.94	-3,279.08	4,639.34	0.00	0.00	0.00	
10,000.00	89.86	315.12	4,418.07	3,636.23	-3,631.90	5,139.34	0.00	0.00	0.00	
10,500.00	89.86	315.12	4,419.26	3,990.51	-3,984.72	5,639.34	0.00	0.00	0.00	
11,000.00	89.86	315.12	4,420.44	4,344.80	-4,337.54	6,139.34	0.00	0.00	0.00	
11,234.98	89.86	315.12	4,421.00	4,511.29	-4,503.34	6,374.32	0.00	0.00	0.00	
<b>TD at 11234.98</b>										

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well KWU #783H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	GL @ 6564.00usft (Original Well Elev)
<b>Project:</b>	T23N R9W	<b>MD Reference:</b>	GL @ 6564.00usft (Original Well Elev)
<b>Site:</b>	2309-19P KWU	<b>North Reference:</b>	True
<b>Well:</b>	KWU #783H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 3May16 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 #783H - plan hits target center - Point	0.00	0.00	4,270.71	-255.80	243.99	-1,893,688.40	503,578.21	36.204524	-107.821205
End 60 tan #783H - plan hits target center - Point	0.00	0.00	4,320.71	-194.43	182.88	1,893,749.76	503,517.09	36.204693	-107.821412
POE #783H - plan hits target center - Point	0.00	0.00	4,406.00	30.04	-40.67	1,893,974.21	503,293.52	36.205310	-107.822170
BHL #783H - plan hits target center - Point	0.00	0.00	4,421.00	4,511.29	-4,503.34	1,898,454.94	498,830.32	36.217619	-107.837299

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	
4,911.00	4,406.00	7"	7.000	8.750	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,000.00	1,000.00	0.00	0.00	Start Build 2.00	
1,850.54	1,838.10	-89.66	87.58	Hold 17.01 Inclination	
3,623.14	3,533.15	-460.61	449.96	Start Build DLS 9.00 TFO 179.51	
4,478.81	4,270.71	-255.80	243.99	Hold 60.00 Inclination	
4,578.81	4,320.71	-194.44	182.88	Start Build DLS 9.00 TFO 0.00	
4,745.81	4,384.40	-85.41	74.31	Start DLS 9.00 TFO 0.00	
4,910.63	4,406.00	30.04	-40.67	POE at 89.86 Inc 315.12 Deg	
11,234.98	4,421.00	4,511.29	-4,503.34	TD at 11234.98	

Construction of all project features associated with KWU Remote #1 will consist of native borrow and subsoils from the Doak-Sheppard-Shiprock association, rolling soil map unit. A brief description of this soil can be found below.

Doak-Sheppard-Shiprock association, rolling soils are found on mesas, fan remnants, stream terraces, and dunes at 5,600 to 6,400 feet in elevation. The unit is composed of 40 percent Doak soils, 30 percent Sheppard soils, and 20 percent Shiprock soils. Doak soils occur on slopes from 0 to 5 percent and are well drained. Doak soils are deep and have a moderately slow permeability. Sheppard soils occur on slopes from 0 to 15 percent and are deep, somewhat excessively drained, and rapidly permeable. Shiprock soils occur on 0 to 5 percent slopes and are deep, well drained, and have a moderately rapid permeability. They formed in eolian material and slope alluvium. Effective rooting depth for this unit is 60 inches or greater. This unit is mainly used for livestock grazing and wildlife habitat. The major limitations of this mapping unit are: (1) the hazard of soil blowing and (2) the hazard of water erosion. (USDA/NRCS 2015).

## 7. METHODS FOR HANDLING WASTE

---

### 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 Figures 3, 4, 7, and 8 in Appendix B for the location of toilets per project).

### E. Garbage and other waste material

- 1 All garbage and trash will be placed in an enclosed metal trash containment. The trash and garbage will be hauled off site and dumped in an approved landfill, as needed.

### F. Hazardous Waste

- 1 No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.

**Directions from the Intersection of US Hwy 550 & US Hwy 64**

**in Bloomfield, NM to WPX Energy Production, LLC KWU #783H**

**42' FSL & 480' FEL, Section 19, T23N, R9W, N.M.P.M., San Juan County, NM**

**Latitude: 36.205240°N Longitude: 107.822648°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 Straight (South-westerly) exiting paved County Road #7800, continuing on County Road #7820 for 0.6 miles to fork in roadway:

Go Right (South-westerly) which is straight remaining on County Road #7820 for 1.1 miles to a 4-way intersection:

Go Straight (South-westerly) for 3.2 miles to fork in roadway:

Go Left (South-westerly) which is straight for 1.0 miles to begin proposed access on left-hand side of County Road #7820 which continues for 183.5' to staked WPX KWU #783H location.

