

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: 11-12-16

Well information;

Operator WPX, Well Name and Number W Lybrook Unit # 744H

API# 30-045-35730, Section 8, Township 23 (N/S), Range 08 (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 R. Catanach  
NMOCD Approved by Signature

5-13-2016  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

MAY 10 2016

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

NOV 12 2015

5. Lease Serial No.  
N0-G-1403-1908

6. Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.  
WEST LYBROOK UNIT

8. Lease Name and Well No.  
W LYBROOK UNIT #744H

9. API Well No.  
30-045-35730

10. Field and Pool, or Exploratory  
LYBROOK MANCOS W

11. Sec., T., R., M., or Blk. and Survey or Area  
SHL: Sec 8, T23N, R8W  
BHL: Sec 17, T23N, R8W

12. County or Parish  
San Juan County

13. State  
NM

17. Spacing Unit dedicated to this well  
240-ACRES  
2800

20. BLM/BIA Bond No. on file  
UTB000178

23. Estimated duration  
1 month

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) 333-1816

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface <sup>M</sup> 1202' FSL & 1307' FWL SEC 8 23N 8W  
At proposed prod. zone <sup>I</sup> 2163' FSL & 330' FEL SEC 17 23N 8W

14. Distance in miles and direction from nearest town or post office\*  
From Bloomfield NM travel approximately 38.7 miles to Mile Marker 112.7

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1202'

16. No. of Acres in lease  
160 acres

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

19. Proposed Depth  
11164' MD / 5026' TVD

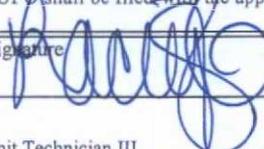
21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6823' GR

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

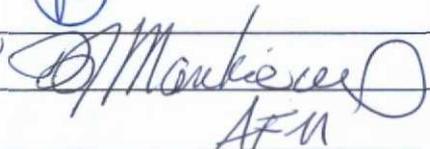
24. Attachments

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

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUP shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature  Name (Printed/Typed) Lacey Granillo Date 11/12/15

Title Permit Technician III

Approved by (Signature)  Name (Printed/Typed) AFU Date 5/6/16

Title Office FFC

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 Lybrook Mancos W 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 and FIMO and is on lease on IA lands and will be twinned with the W LYBROOK UT #703H/704H/743H

This location has been archaeologically surveyed by LaPlata. Copies of their report have been submitted directly to the BLM, FIMO, BIA & NNHPD

A new 764.1 on lease access road will be built on IA/BLM lands and permitted via APD

A new 4504.4' on lease pipeline on IA/BLM lands will be built and permitted via the APD

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

CONFIDENTIAL

AV  
NMOCD

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

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>30-045-35730</b>		*Pool Code <b>97232 98157</b>	*Pool Name LYBROOK MANCOS W
*Property Code <b>315250</b>		*Property Name W LYBROOK UNIT	*Well Number 744H
*GRID No. 120782		*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 6823'

<sup>10</sup> Surface Location

U. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	8	23N	8W		1202	SOUTH	1307	WEST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

U. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	23N	8W		2163	SOUTH	330	EAST	SAN JUAN

*Dedicated Acres 280.0	S/2 SW/4 (Section 8) NE/4 NW/4, W/2 NE/4 SE/4 NE/4, NE/4 SE/4 (Section 17)	*Joint or Infill	*Consolidation Code	*Order No. R-14051 - 12,807.24 Acres
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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

SURFACE LOCATION  
1202' FSL 1307' FWL  
SECTION 8, T23N, R8W  
LAT: 36.237622° N  
LONG: 107.708510° W  
DATUM: NAD1927

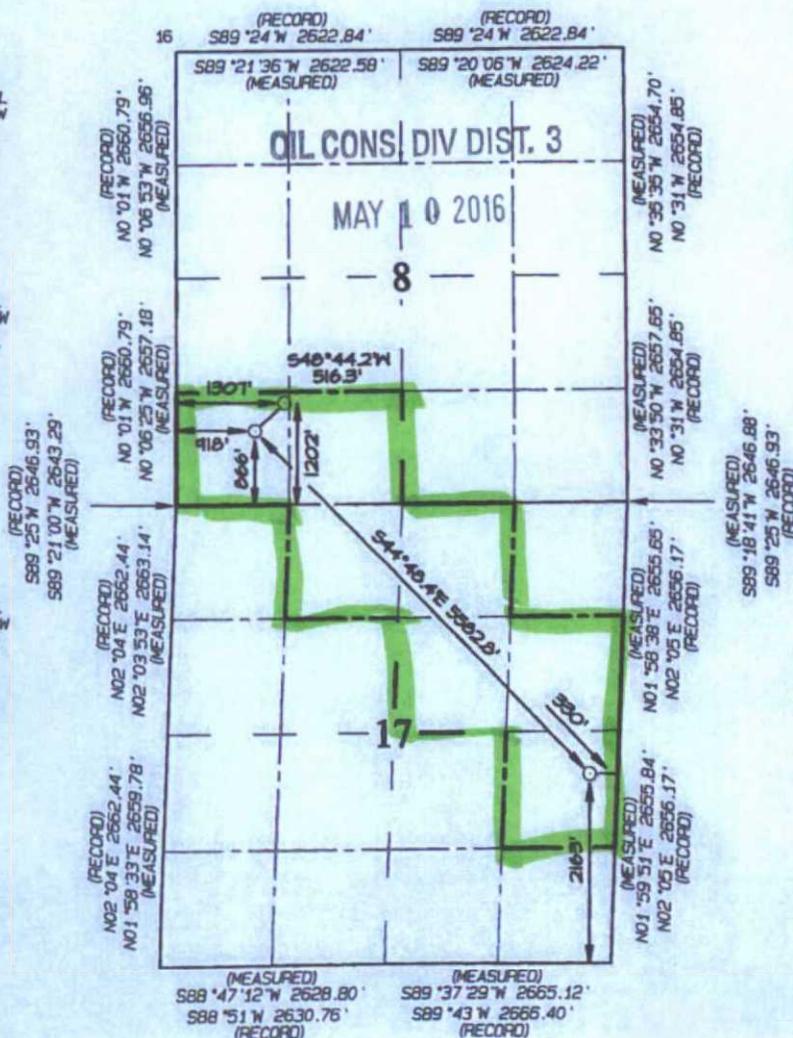
LAT: 36.237635° N  
LONG: 107.709122° W  
DATUM: NAD1983

POINT-OF-ENTRY  
866' FSL 918' FWL  
SECTION 8, T23N, R8W  
LAT: 36.236689° N  
LONG: 107.709827° W  
DATUM: NAD1927

LAT: 36.236701° N  
LONG: 107.710439° W  
DATUM: NAD1983

END-OF-LATERAL  
2163' FSL 330' FEL  
SECTION 17, T23N, R8W  
LAT: 36.225792° N  
LONG: 107.696506° W  
DATUM: NAD1927

LAT: 36.225805° N  
LONG: 107.697117° 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.

Signature: *[Signature]* Date: 11/17/15  
LACEY GRANILLO  
Printed Name  
LACEY.GRANILLO@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: OCTOBER 8, 2015  
Date of Survey: MAY 20, 2015  
Signature and Seal of Professional Surveyor



JASON C. EDWARDS  
Certificate Number 15269

# WPXENERGY.

## WPX Energy

### Operations Plan

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

**Date:** November 12, 2015  
**Well Name:** W Lybrook UT #744H  
**SH Location:** SWSW Sec 8-23N-08W  
**BH Location:** NESE Sec 17-23N-08W

**Field:** LYBROOK MANCOS W  
**Surface:** IA  
**Elevation:** 6823' GR  
**Minerals:** IA

**Measured Depth:** 11,164.25

I. **GEOLOGY:** SURFACE FORMATION - NACIMIENTO

#### A. FORMATION TOPS (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	838	837	POINT LOOKOUT	3910	3824
KIRTLAND	1048	1045	MANCOS	4103	4011
PICTURED CLIFFS	1434	1421	GALLUP	4462	4360
LEWIS	1548	1532	KICKOFF POINT	5,182.08	4,961.74
CHACRA	1815	1791	TOP TARGET	5396	5052
CLIFF HOUSE	2923	2866	LANDING POINT	5,581.24	5,077.00
MENELEE	2974	2915	BASE TARGET	5,581.24	5,077.00
			TD	11,164.25	5,026.00

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 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**. Pressure test surface casing to **600 psi 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)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320.00'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	5,581.24	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5431.24 - 11,164.25	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5431.24	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 (561 sx /764 cuft /136 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (561 sx /764bbls).

I.

COMPLETION

A. CBL

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.

- Although this horizontal well will be 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.

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**NOTE:**

**Proposed Operations:**

A 4-1/2" 11.6# N-80 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# K-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).



# **WPX Energy**

**T23N R8W**

**W Lybrook 2308-7B**

**W Lybrook UT #744H - Slot A2**

**Wellbore #1**

**Plan: Design #1 23Sep15 sam**

## **Standard Planning Report**

**29 September, 2015**

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well W Lybrook UT #744H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	KB @ 6837.00usft (Aztec 920)
<b>Project:</b>	T23N R8W	<b>MD Reference:</b>	KB @ 6837.00usft (Aztec 920)
<b>Site:</b>	W Lybrook 2308-7B	<b>North Reference:</b>	True
<b>Well:</b>	W Lybrook UT #744H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 23Sep15 sam		

<b>Project</b>	T23N R8W		
<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>	W Lybrook 2308-7B				
<b>Site Position:</b>	<b>Northing:</b>	1,906,343.71 usft	<b>Latitude:</b>	36.239225	
<b>From:</b>	<b>Easting:</b>	537,196.07 usft	<b>Longitude:</b>	-107.707202	
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.07 °

<b>Well</b>	W Lybrook UT #744H - Slot A2				
<b>Well Position</b>	<b>+N/-S</b>	-583.36 usft	<b>Northing:</b>	1,905,759.85 usft	
	<b>+E/-W</b>	-385.85 usft	<b>Easting:</b>	536,810.98 usft	
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	6,823.00 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>
	IGRF2010	9/23/2015	9.29	62.94	50,029

<b>Design</b>	Design #1 23Sep15 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	140.57

<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	
531.00	0.00	0.00	531.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,230.68	13.99	282.76	1,223.75	18.78	-82.92	2.00	2.00	0.00	282.76	
4,381.77	13.99	282.76	4,281.32	187.08	-826.08	0.00	0.00	0.00	0.00	
5,182.08	60.00	135.27	4,961.74	-72.91	-653.16	9.00	5.75	-18.43	-150.71	Start 60 tan 744H
5,242.08	60.00	135.27	4,991.74	-109.82	-616.59	0.00	0.00	0.00	0.00	End 60 tan 744H
5,415.24	75.59	135.27	5,056.98	-223.36	-504.11	9.00	9.00	0.00	0.01	
5,581.24	90.52	135.27	5,077.00	-340.09	-388.47	9.00	9.00	0.00	-0.01	POE 744H
11,164.25	90.52	135.27	5,026.00	-4,306.09	3,540.69	0.00	0.00	0.00	0.00	BHL 744H

**WPX**  
Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well W Lybrook UT #744H (A2) - Slot A2
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<b>Well:</b>	W Lybrook UT #744H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 23Sep15 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	0.00
351.00	0.00	0.00	351.00	0.00	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	0.00
531.00	0.00	0.00	531.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>										
1,000.00	9.38	282.76	997.91	8.46	-37.36	-30.26	2.00	2.00	0.00	0.00
1,230.68	13.99	282.76	1,223.75	18.78	-82.92	-67.17	2.00	2.00	0.00	0.00
<b>Hold 13.99 Inclination</b>										
1,500.00	13.99	282.76	1,485.07	33.16	-146.44	-118.62	0.00	0.00	0.00	0.00
2,000.00	13.99	282.76	1,970.23	59.87	-264.36	-214.14	0.00	0.00	0.00	0.00
2,500.00	13.99	282.76	2,455.39	86.57	-382.28	-309.66	0.00	0.00	0.00	0.00
3,000.00	13.99	282.76	2,940.56	113.28	-500.20	-405.18	0.00	0.00	0.00	0.00
3,500.00	13.99	282.76	3,425.72	139.98	-618.12	-500.71	0.00	0.00	0.00	0.00
4,000.00	13.99	282.76	3,910.88	166.69	-736.04	-596.23	0.00	0.00	0.00	0.00
4,381.77	13.99	282.76	4,281.32	187.08	-826.08	-669.16	0.00	0.00	0.00	0.00
<b>Start Build DLS 9.00 TFO -150.71</b>										
4,500.00	6.98	234.78	4,397.69	186.09	-845.95	-681.02	9.00	-5.93	-40.58	0.00
5,000.00	43.80	138.46	4,849.75	30.98	-751.11	-500.97	9.00	7.36	-19.26	0.00
5,182.08	60.00	135.27	4,961.74	-72.91	-653.16	-358.52	9.00	8.90	-1.75	0.00
<b>Hold 60.00 Inclination</b>										
5,242.08	60.00	135.27	4,991.74	-109.82	-616.59	-306.78	0.00	0.00	0.00	0.00
<b>Start Build DLS 9.00 TFO 0.01</b>										
5,415.24	75.59	135.27	5,056.98	-223.36	-504.11	-147.64	9.00	9.00	0.00	0.00
<b>Start DLS 9.00 TFO -0.01</b>										
5,500.00	83.21	135.27	5,072.56	-282.50	-445.52	-64.75	9.00	9.00	0.00	0.00
5,581.00	90.50	135.27	5,077.00	-339.92	-388.64	15.73	9.00	9.00	0.00	0.00
<b>7"</b>										
5,581.24	90.52	135.27	5,077.00	-340.09	-388.47	15.97	9.00	9.00	0.00	0.00
<b>POE at 90.52 Inc 135.27 deg</b>										
6,000.00	90.52	135.27	5,073.17	-637.57	-93.76	432.92	0.00	0.00	0.00	0.00
6,500.00	90.52	135.27	5,068.61	-992.75	258.13	930.76	0.00	0.00	0.00	0.00
7,000.00	90.52	135.27	5,064.04	-1,347.94	610.01	1,428.60	0.00	0.00	0.00	0.00
7,500.00	90.52	135.27	5,059.47	-1,703.12	961.90	1,926.43	0.00	0.00	0.00	0.00
8,000.00	90.52	135.27	5,054.91	-2,058.30	1,313.78	2,424.27	0.00	0.00	0.00	0.00
8,500.00	90.52	135.27	5,050.34	-2,413.49	1,665.67	2,922.11	0.00	0.00	0.00	0.00
9,000.00	90.52	135.27	5,045.77	-2,768.67	2,017.55	3,419.95	0.00	0.00	0.00	0.00
9,500.00	90.52	135.27	5,041.20	-3,123.86	2,369.44	3,917.79	0.00	0.00	0.00	0.00
10,000.00	90.52	135.27	5,036.64	-3,479.04	2,721.32	4,415.63	0.00	0.00	0.00	0.00
10,500.00	90.52	135.27	5,032.07	-3,834.23	3,073.21	4,913.46	0.00	0.00	0.00	0.00
11,000.00	90.52	135.27	5,027.50	-4,189.41	3,425.09	5,411.30	0.00	0.00	0.00	0.00
11,164.25	90.52	135.27	5,026.00	-4,306.09	3,540.69	5,574.85	0.00	0.00	0.00	0.00
<b>TD at 11164.25</b>										

# WPX Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well W Lybrook UT #744H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	KB @ 6837.00usft (Aztec 920)
<b>Project:</b>	T23N R8W	<b>MD Reference:</b>	KB @ 6837.00usft (Aztec 920)
<b>Site:</b>	W Lybrook 2308-7B	<b>North Reference:</b>	True
<b>Well:</b>	W Lybrook UT #744H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 23Sep15 sam		

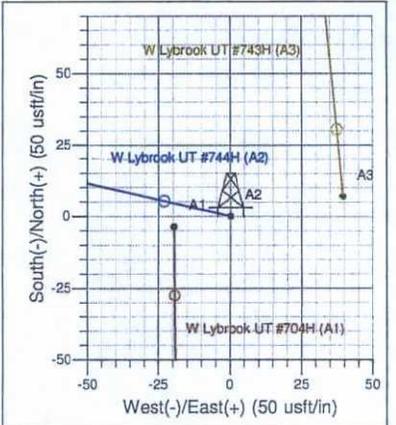
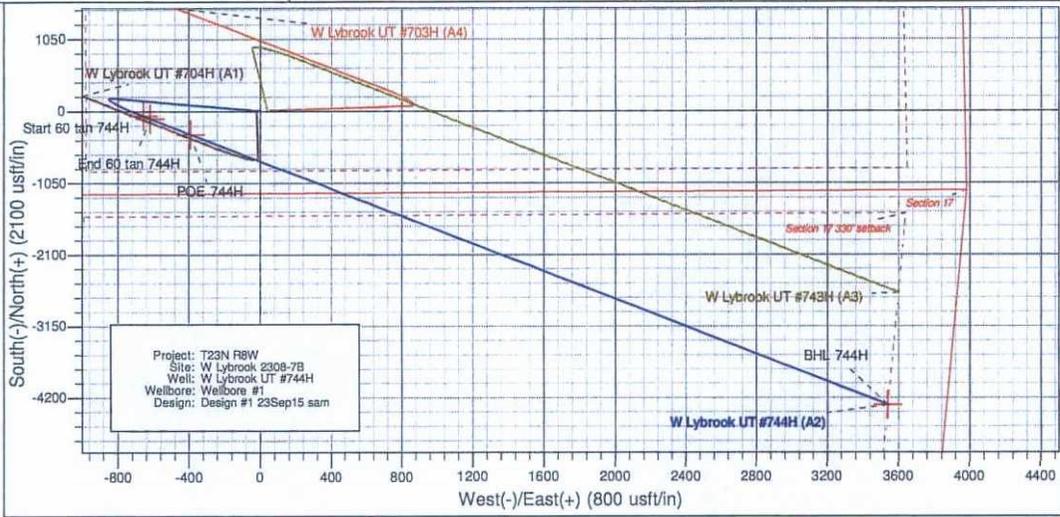
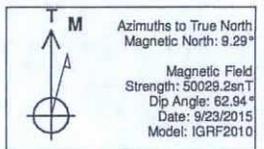
Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 tan 744H - plan hits target center - Point	0.00	0.00	4,961.74	-72.91	-653.16	1,905,686.10	536,157.92	36.237422	-107.710725
End 60 tan 744H - plan misses target center by 0.01usft at 5242.09usft MD (4991.74 TVD, -109.83 N, -616.59 E) - Point	0.00	0.00	4,991.74	-109.83	-616.59	1,905,649.23	536,194.53	36.237320	-107.710601
BHL 744H - plan hits target center - Point	0.00	0.00	5,026.00	-4,306.09	3,540.69	1,901,458.32	540,357.21	36.225792	-107.696506
POE 744H - plan hits target center - Point	0.00	0.00	5,077.00	-340.09	-388.47	1,905,419.26	536,422.95	36.236688	-107.709828

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)	
351.00	351.00	9 5/8"		9.625	12.250	
5,581.00	5,077.00	7"		7.000	8.750	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
531.00	531.00	0.00	0.00	Start Build 2.00	
1,230.68	1,223.75	18.78	-82.92	Hold 13.99 Inclination	
4,381.77	4,281.32	187.08	-826.08	Start Build DLS 9.00 TFO -150.71	
5,182.08	4,961.74	-72.91	-653.16	Hold 60.00 Inclination	
5,242.08	4,991.74	-109.82	-616.59	Start Build DLS 9.00 TFO 0.01	
5,415.24	5,056.98	-223.36	-504.11	Start DLS 9.00 TFO -0.01	
5,581.24	5,077.00	-340.09	-388.47	POE at 90.52 Inc 135.27 deg	
11,164.25	5,026.00	-4,306.09	3,540.69	TD at 11164.25	



Well Name: W Lybrook UT #744H  
 Surface Location: W Lybrook 2308-7B  
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003  
 Ground Elevation: 6823.00  
 +N/-S 0.00 +E/-W 0.00 Northing 1905759.85 Easting 536810.98 Latitude 36.237622 Longitude -107.708510 Slot A2  
 KB @ 6837.00usft (Aztec 920)

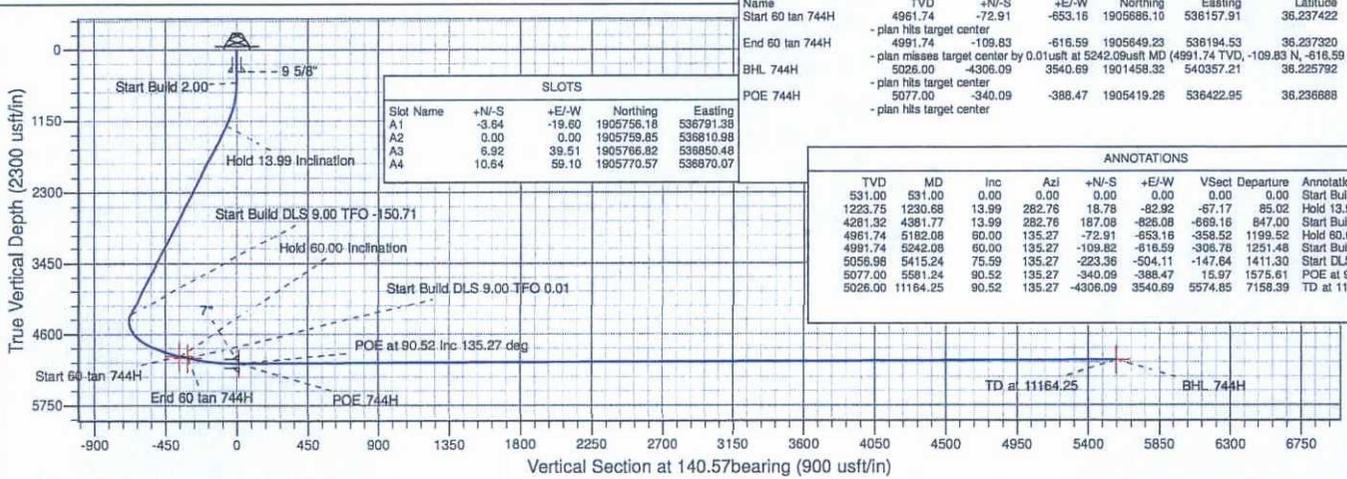


Project: T23N R8W  
 Site: W Lybrook 2308-7B  
 Well: W Lybrook UT #744H  
 Wellbore: Wellbore #1  
 Design: Design #1 23Sep15 sam

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 tan 744H	4961.74	-72.91	-653.16	1905886.10	536157.91	36.237422	-107.710725	Point
End 60 tan 744H	4991.74	-109.83	-616.59	1905849.23	536194.53	36.237320	-107.710601	Point
BHL 744H	5026.00	-4306.09	3540.69	1901458.32	540357.21	36.225792	-107.696506	Point
POE 744H	5077.00	-340.09	-388.47	1905419.26	536422.95	36.236688	-107.709827	Point

SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
A1	-3.64	-19.60	1905756.18	536791.38
A2	0.00	0.00	1905759.85	536810.98
A3	6.92	39.51	1905766.82	536850.48
A4	10.64	59.10	1905770.57	536870.07

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
531.00	531.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00	
1223.75	1230.68	13.99	282.76	18.78	-82.92	-67.17	85.02	Hold 13.99 Inclination	
4281.32	4381.77	13.99	282.76	187.08	-826.08	-668.16	847.00	Start Build DLS 9.00 TFO -150.71	
4961.74	5182.08	60.00	135.27	-72.91	-653.16	-358.52	1199.52	Hold 60.00 Inclination	
4991.74	5242.08	60.00	135.27	-109.83	-616.59	-306.76	1251.48	Start Build DLS 9.00 TFO 0.01	
5056.56	5415.24	75.59	135.27	-223.36	-504.11	-147.64	1411.30	Start DLS 9.00 TFO -0.01	
5077.00	5581.24	90.52	135.27	-340.09	-388.47	15.97	1575.61	POE at 90.52 Inc 135.27 deg	
5026.00	11164.25	90.52	135.27	-4306.09	3540.69	5574.85	7158.39	TD at 11164.25	



- c. The construction zone near corner 6 of the West Lybrook UT Nos. 701H & 702H well pad may be shortened to accommodate drainage and badland hills.
  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 pads within 120 days of the well pads being constructed, the operator will consult with the BLM to address a site-stabilization plan.
- D. Production Facilities
1. As practical, accesses 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 on the Remote Facilities Pad, to minimize visual impact to the extent practicable.
  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 areas not needed for operation will be reclaimed. When the well is plugged, final reclamation will occur within the remainder of the project areas. Reclamation is described in detail in the Reclamation Plan (Appendix C).

## ✓ 7.0 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 a 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).
- E. Garbage and other water material
1. All garbage and trash will be placed in a metal trash basket. The trash and garbage will be hauled off site and dumped in an approved landfill, as needed.
- F. Hazardous Waste

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

**in Bloomfield, NM to WPX Energy Production, LLC W Lybrook Unit #744H**

**1202' FSL & 1307' FWL, Section 8, T23N, R8W, N.M.P.M., San Juan County, NM**

**Latitude: 36.237635°N Longitude: 107.709122°W Datum: NAD1983**

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.7 miles to Mile Marker 112.7;

Go Right (Southerly) on County Road #7900 for 0.2 miles to begin proposed access on right-hand side of County Road #7900 which continues for 764.1' to staked WPX W Lybrook Unit #744H location.

3,000 PSI rated Choke system

