

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

AUG 10 2017

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

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.

Farmington Field Office
Bureau of Land Management

SUBMIT IN TRIPLICATE - Other instructions on page 2		5. Lease Serial No. NOG14031948
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator WPX Energy Production, LLC		7. If Unit of CA/Agreement, Name and/or No. NMNM 135216A
3a. Address PO Box 640 Aztec, NM 87410	3b. Phone No. (include area code) 505-333-1808	8. Well Name and No. W Lybrook Unit 753H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL: 1878' FSL & 691' FEL Sec 14 T23N R9W Unit: I BHL: 330' FSL & 2025' FWL Sec 19 T23N R8W Unit: N		9. API Well No. 30-045-35815
		10. Field and Pool or Exploratory Area Lybrook Mancos W
		11. Country or Parish, State San Juan, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Change in Plans
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

OIL CONS. DIV DIST. 3

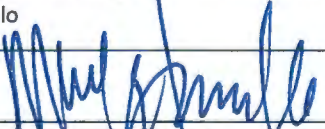
AUG 17 2017

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 recomple 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 recompletion 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.)

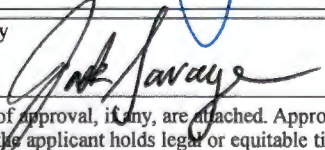
WPX Energy request a change in plans for the POE, Total Depth (TD) per attached C102, OPS & Directional Drill Plans.

ADHERE TO PREVIOUS NMOC
CONDITIONS OF APPROVAL

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) Marie E. Jaramillo	Title: Permit Tech
Signature 	Date: 8/10/17

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by 	Title PE	Date 8/15/17
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.	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.

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 30-045-35815	*Pool Code 98157	*Pool Name LYBROOK MANCOS W
*Property Code 315250	*Property Name W LYBROOK UNIT	*Well Number 753H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 6719'

¹⁰ Surface Location

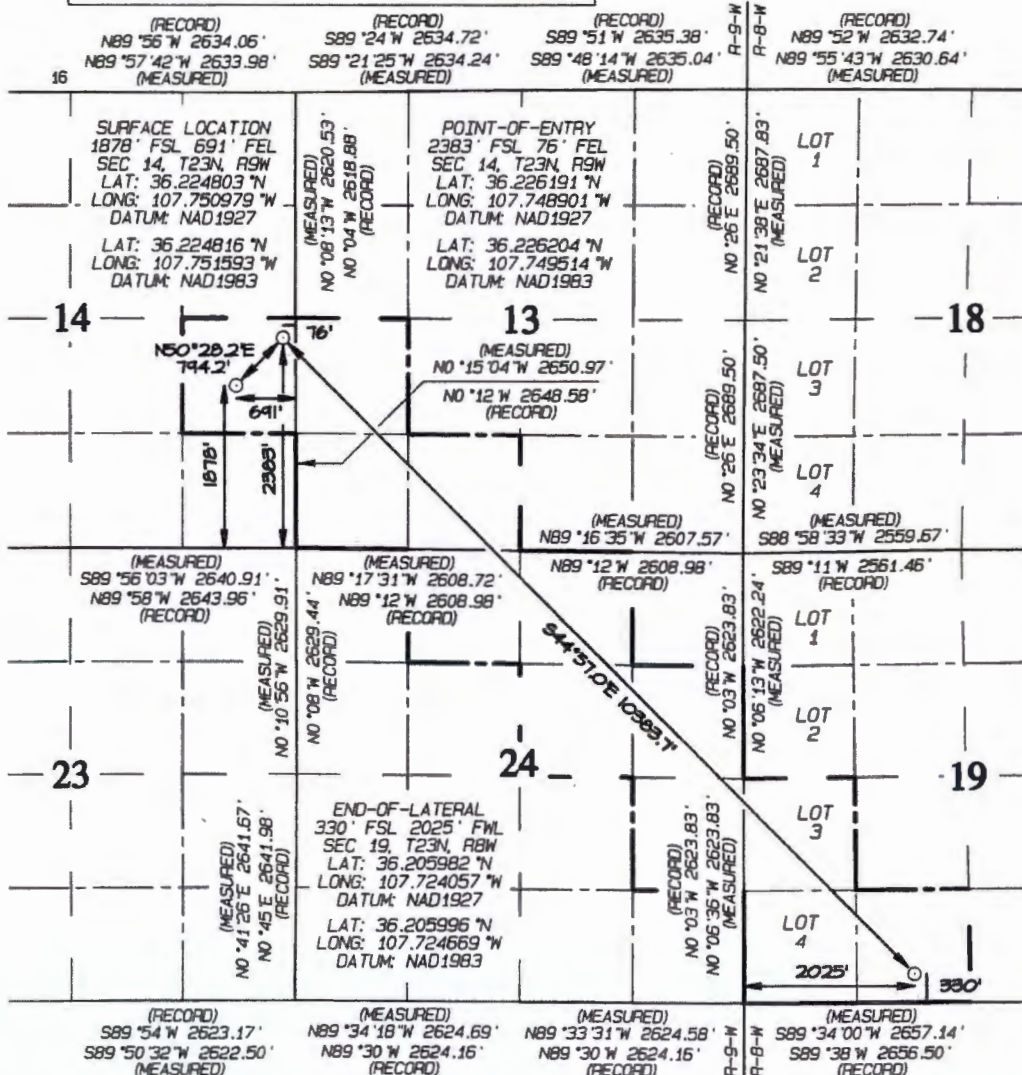
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	14	23N	9W		1878	SOUTH	691	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	19	23N	8W		330	SOUTH	2025	WEST	SAN JUAN

¹² Dedicated Acres 480.43
NW/4 SW/4, S/2 SW/4 - Section 13
NE/4 SE/4 - Section 14
NE/4 NW/4, W/2 NE/4, SE/4 NE/4
NE/4 SE/4 - Section 24, T23N, R9W
NW/4 SW/4, S/2 SW/4-19, T23N, R8W

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION
UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Marie E. Jaramillo* Date: 8/10/17
Printed Name: Marie E. Jaramillo
E-mail Address: marie.jaramillo@wpxenergy.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: AUGUST 10, 2017
Survey Date: SEPTEMBER 16, 2015

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269



WPX Energy

Operations Plan

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

Date: August 10, 2017
Well Name: W Lybrook Unit 753H
SH Location: NESE Sec 14 23N-09W
BH Location: SESW Sec 19 23N-08W

Field: Lybrook Mancos W
Surface: IA
Elevation: 6719' GR
Minerals: FED

Measured Depth: 15866.58'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	446.00	446.00	POINT LOOKOUT	3,629.00	3,516.00
KIRTLAND	588.00	588.00	MANCOS	3,810.00	3,689.00
PICTURED CLIFFS	1,059.00	1,055.00	GALLUP	4,159.00	4,023.00
LEWIS	1,264.00	1,255.00	KICKOFF POINT	4,176.18	4,039.19
CHACRA	1,486.00	1,468.00	TOP TARGET	5,314.00	4,799.00
CLIFF HOUSE	2,660.00	2,590.00	LANDING POINT	5,318.62	4,799.00
MENEFEE	2,672.00	2,601.00	BASE TARGET	5,318.62	4,799.00
			TD	15,866.58	4,762.00

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"	5318.62'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5168.62' - 15866.58'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5168.62'	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: 98 bbls, 279 sks, (549 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/ +/- 209 bbl Drilling mud or water. Total Cement: 157 bbls, 533 sks, (880 cuft)

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 (1048 sx /1426 cuft /254 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-220bbl Fr Water. Total Cement (1048 sx /1426bbls).

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).

WPX Energy

T23N R9W

W Lybrook UT 716 Pad

W Lyrbook UT 753H

API: 30-045-35815

Wellbore #1

Plan: Plan #1

Standard Planning Report

27 July, 2017



www.scientificdrilling.com

W Lyrbook UT 753H
T23N R9W
Northing: 1901080.19
Easting: 524290.63
Plan #1



Azimuths to True North
Magnetic North: 9.03°

Magnetic Field
Strength: 49661.0nT
Dip Angle: 62.85°
Date: 6/13/2017
Model: HDGM

WELL DETAILS W Lyrbook UT 753H					
Ground Level: 6719.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1901080.19	524290.63	36.224803	-107.750979

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	
321.00	0.83	276.38	320.97	-2.44	-1.65	0.00	0.00	0.57	
362.50	0.00	0.00	362.47	-2.41	-1.95	2.00	180.00	0.34	
500.03	0.00	0.00	500.00	-2.41	-1.95	0.00	0.00	0.34	
1353.88	17.07	357.14	1341.07	123.68	-8.28	2.00	357.14	-93.64	
4176.18	17.07	357.14	4039.19	951.30	-49.67	0.00	0.00	-710.46	
5318.82	90.20	135.24	4799.00	618.78	500.36	9.00	136.78	-87.05	
9481.87	90.20	137.34	4784.52	-2390.32	3377.13	0.05	90.07	4075.24	
14338.75	90.20	132.48	4767.45	-5816.16	6815.85	0.10	-89.91	8930.56	
15866.58	90.20	132.48	4762.00	-8849.97	7942.62	0.00	0.00	10456.61	

SITE DETAILS: W Lyrbook UT 718 Pad

Site Centre Northing: 1901036.92
Easting: 524357.92

Positional Uncertainty: 0.00
Convergence: 0.05
Local North: True

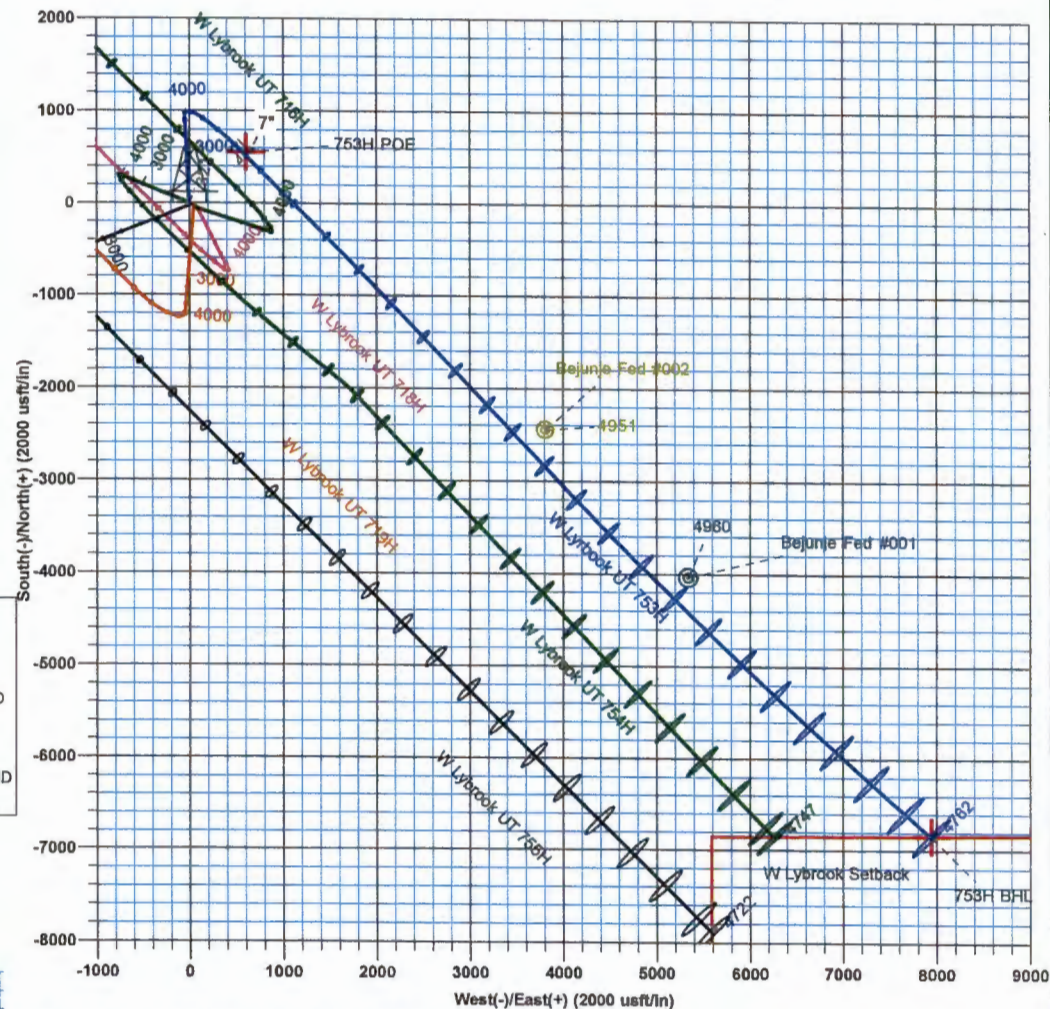
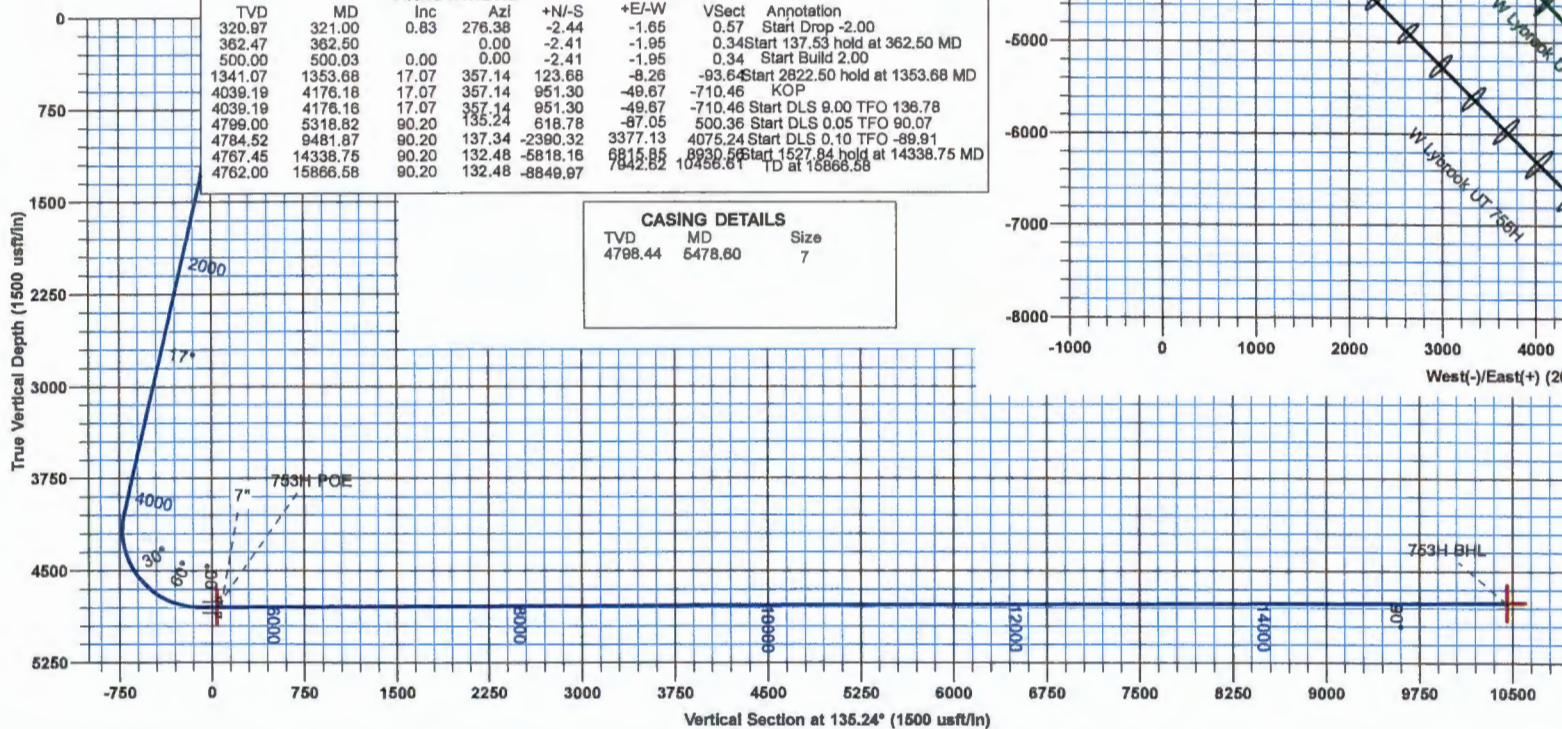
PROJECT DETAILS: T23N R9W

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level

GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSecl	Annotation		
320.97	321.00	0.83	276.38	-2.44	-1.65	0.57	Start Drop -2.00		
362.47	362.50	0.00	0.00	-2.41	-1.95	0.34	Start 137.53 hold at 362.50 MD		
500.00	500.03	0.00	0.00	-2.41	-1.95	0.34	Start Build 2.00		
1341.07	1353.88	17.07	357.14	123.68	-8.28	-93.64	Start 2822.50 hold at 1353.68 MD		
4039.19	4176.18	17.07	357.14	951.30	-49.67	-710.46	KOP		
4039.19	4176.18	17.07	357.14	951.30	-49.67	-710.46	Start DLS 8.00 TFO 136.78		
4799.00	5318.82	90.20	135.24	618.78	-87.05	500.36	Start DLS 0.05 TFO 90.07		
4784.52	9481.87	90.20	137.34	-2390.32	3377.13	4075.24	Start DLS 0.10 TFO -89.91		
4767.45	14338.75	90.20	132.48	-5816.16	6815.85	8930.56	Start 1527.84 hold at 14338.75 MD		
4762.00	15866.58	90.20	132.48	-8849.97	7942.62	10456.61	ID at 15866.58		

CASING DETAILS		
TVD	MD	Size
4798.44	5478.60	7



Bailey Fellows
15:07, July 27 2017
Scientific Drilling
325 S Pauline Rd.
Odessa, TX 79765

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lyrbook UT 753H
Company:	WPX Energy	TVD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Site:	W Lybrook UT 716 Pad	North Reference:	True
Well:	W Lyrbook UT 753H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	T23N R9W		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site		W Lybrook UT 716 Pad			
Site Position:		Northing:	1,901,036.93 usft	Latitude:	36.224684
From:	Lat/Long	Easting:	524,357.92 usft	Longitude:	-107.750751
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.05 "

Well	W Lyrbook UT 753H					
Well Position	+N/-S	43.32 usft	Northing:	1,901,080.19 usft	Latitude:	36.224803
	+E/-W	-67.25 usft	Easting:	524,290.63 usft	Longitude:	-107.750979
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,719.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	6/13/2017	9.03	62.85	49,661

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	321.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	135.24

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
321.00	0.83	276.38	320.97	-2.44	-1.65	0.00	0.00	0.00	0.00	
362.50	0.00	0.00	382.47	-2.41	-1.95	2.00	-2.00	0.00	180.00	
500.03	0.00	0.00	500.00	-2.41	-1.95	0.00	0.00	0.00	0.00	
1,353.68	17.07	357.14	1,341.07	123.68	-8.26	2.00	2.00	0.00	357.14	
4,176.18	17.07	357.14	4,039.19	951.30	-49.67	0.00	0.00	0.00	0.00	
5,318.62	90.20	135.24	4,799.00	618.78	500.36	9.00	6.40	12.09	136.78	
9,481.87	90.20	137.34	4,784.52	-2,390.32	3,377.13	0.05	0.00	0.05	90.07	
14,338.75	90.20	132.48	4,767.45	-5,818.16	6,815.85	0.10	0.00	-0.10	-89.91	
15,866.58	90.20	132.48	4,762.00	-6,849.97	7,942.62	0.00	0.00	0.00	0.00	753H BHL

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lyrbook UT 753H
Company:	WPX Energy	TVD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Site:	W Lybrook UT 716 Pad	North Reference:	True
Well:	W Lyrbook UT 753H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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
21.00	0.00	0.00	21.00	0.00	0.00	0.00	0.00	0.00	0.00
51.00	0.83	141.32	51.00	-0.17	0.14	0.22	2.77	2.77	0.00
81.00	0.77	165.00	81.00	-0.53	0.32	0.61	1.11	-0.20	78.93
111.00	0.82	174.62	110.99	-0.94	0.40	0.95	0.47	0.17	32.07
141.00	0.94	176.87	140.99	-1.40	0.43	1.30	0.42	0.40	7.50
171.00	1.00	210.83	170.99	-1.87	0.31	1.55	1.90	0.20	113.20
201.00	0.82	241.38	200.98	-2.20	-0.01	1.55	1.70	-0.80	101.83
231.00	0.84	256.17	230.98	-2.36	-0.42	1.38	0.72	0.07	49.30
261.00	0.81	260.35	260.98	-2.44	-0.84	1.14	0.22	-0.10	13.93
291.00	0.74	272.05	290.97	-2.47	-1.24	0.88	0.58	-0.23	39.00
321.00	0.83	276.38	320.97	-2.44	-1.65	0.57	0.36	0.30	14.43
Start Drop -2.00									
362.50	0.00	0.00	362.47	-2.41	-1.95	0.34	2.00	-2.00	0.00
Start 137.53 hold at 362.50 MD									
400.00	0.00	0.00	399.97	-2.41	-1.95	0.34	0.00	0.00	0.00
500.03	0.00	0.00	500.00	-2.41	-1.95	0.34	0.00	0.00	0.00
Start Build 2.00									
600.00	2.00	357.14	599.95	-0.67	-2.04	-0.96	2.00	2.00	0.00
700.00	4.00	357.14	699.81	4.56	-2.30	-4.86	2.00	2.00	0.00
800.00	6.00	357.14	799.42	13.28	-2.73	-11.34	2.00	2.00	0.00
900.00	8.00	357.14	898.67	25.43	-3.34	-20.41	2.00	2.00	0.00
1,000.00	10.00	357.14	997.43	41.06	-4.12	-32.06	2.00	2.00	0.00
1,100.00	12.00	357.14	1,095.59	60.11	-5.08	-46.26	2.00	2.00	0.00
1,200.00	14.00	357.14	1,193.02	82.57	-6.20	-63.00	2.00	2.00	0.00
1,300.00	16.00	357.14	1,289.61	108.42	-7.50	-82.26	2.00	2.00	0.00
1,353.68	17.07	357.14	1,341.07	123.68	-8.26	-93.64	2.00	2.00	0.00
Start 2822.50 hold at 1353.68 MD									
1,400.00	17.07	357.14	1,385.35	137.26	-8.94	-103.76	0.00	0.00	0.00
1,500.00	17.07	357.14	1,480.94	166.59	-10.41	-125.61	0.00	0.00	0.00
1,600.00	17.07	357.14	1,576.54	195.91	-11.87	-147.47	0.00	0.00	0.00
1,700.00	17.07	357.14	1,672.13	225.23	-13.34	-169.32	0.00	0.00	0.00
1,800.00	17.07	357.14	1,767.72	254.55	-14.81	-191.17	0.00	0.00	0.00
1,900.00	17.07	357.14	1,863.32	283.87	-16.28	-213.03	0.00	0.00	0.00
2,000.00	17.07	357.14	1,958.91	313.20	-17.74	-234.88	0.00	0.00	0.00
2,100.00	17.07	357.14	2,054.50	342.52	-19.21	-256.74	0.00	0.00	0.00
2,200.00	17.07	357.14	2,150.10	371.84	-20.68	-278.59	0.00	0.00	0.00
2,300.00	17.07	357.14	2,245.69	401.16	-22.14	-300.44	0.00	0.00	0.00
2,400.00	17.07	357.14	2,341.28	430.49	-23.61	-322.30	0.00	0.00	0.00
2,500.00	17.07	357.14	2,436.88	459.81	-25.08	-344.15	0.00	0.00	0.00
2,600.00	17.07	357.14	2,532.47	489.13	-26.55	-366.01	0.00	0.00	0.00
2,700.00	17.07	357.14	2,628.06	518.45	-28.01	-387.86	0.00	0.00	0.00
2,800.00	17.07	357.14	2,723.66	547.77	-29.48	-409.71	0.00	0.00	0.00
2,900.00	17.07	357.14	2,819.25	577.10	-30.95	-431.57	0.00	0.00	0.00
3,000.00	17.07	357.14	2,914.84	606.42	-32.42	-453.42	0.00	0.00	0.00
3,100.00	17.07	357.14	3,010.43	635.74	-33.88	-475.27	0.00	0.00	0.00
3,200.00	17.07	357.14	3,106.03	665.06	-35.35	-497.13	0.00	0.00	0.00
3,300.00	17.07	357.14	3,201.62	694.39	-36.82	-518.98	0.00	0.00	0.00
3,400.00	17.07	357.14	3,297.21	723.71	-38.29	-540.84	0.00	0.00	0.00
3,500.00	17.07	357.14	3,392.81	753.03	-39.75	-562.69	0.00	0.00	0.00
3,600.00	17.07	357.14	3,488.40	782.35	-41.22	-584.54	0.00	0.00	0.00
3,700.00	17.07	357.14	3,583.99	811.67	-42.69	-606.40	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lyrbook UT 753H
Company:	WPX Energy	TVD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Site:	W Lybrook UT 718 Pad	North Reference:	True
Well:	W Lyrbook UT 753H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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)	
3,800.00	17.07	357.14	3,679.59	841.00	-44.15	-628.25	0.00	0.00	0.00	
3,900.00	17.07	357.14	3,775.18	870.32	-45.62	-650.11	0.00	0.00	0.00	
4,000.00	17.07	357.14	3,870.77	899.64	-47.09	-671.96	0.00	0.00	0.00	
4,100.00	17.07	357.14	3,966.37	928.96	-48.56	-693.81	0.00	0.00	0.00	
4,176.18	17.07	357.14	4,039.19	951.30	-49.67	-710.48	0.00	0.00	0.00	
KOP - Start DLS 9.00 TFO 136.78										
4,200.00	15.58	2.81	4,062.05	957.99	-49.70	-715.23	9.00	-6.28	22.98	
4,250.00	13.03	17.71	4,110.51	970.07	-47.68	-722.39	9.00	-5.10	30.21	
4,300.00	11.89	37.92	4,159.38	979.44	-42.85	-725.64	9.00	-2.67	40.41	
4,350.00	11.98	59.94	4,208.34	986.04	-35.24	-724.97	9.00	0.58	44.05	
4,400.00	13.80	78.52	4,257.10	989.83	-24.90	-720.37	9.00	3.63	37.15	
4,450.00	16.65	91.86	4,305.35	990.78	-11.89	-711.89	9.00	5.70	28.89	
4,500.00	20.10	101.08	4,352.80	988.90	3.71	-699.57	9.00	6.90	18.44	
4,550.00	23.89	107.59	4,399.16	984.19	21.80	-683.48	9.00	7.58	13.02	
4,600.00	27.88	112.37	4,444.14	976.68	42.27	-663.74	9.00	7.98	9.56	
4,650.00	32.00	118.02	4,487.47	966.41	65.00	-640.45	9.00	8.23	7.30	
4,700.00	36.19	118.91	4,528.87	953.46	89.84	-613.76	9.00	8.40	5.78	
4,750.00	40.45	121.27	4,568.09	937.89	116.64	-583.83	9.00	8.51	4.72	
4,800.00	44.75	123.25	4,604.88	919.82	145.24	-550.86	9.00	8.59	3.96	
4,850.00	49.07	124.95	4,639.03	899.34	175.45	-515.04	9.00	8.65	3.40	
4,900.00	53.42	128.44	4,670.33	876.58	207.10	-476.60	9.00	8.70	2.98	
4,950.00	57.78	127.77	4,698.57	851.89	239.99	-435.77	9.00	8.73	2.66	
5,000.00	62.16	128.97	4,723.58	824.82	273.92	-392.80	9.00	8.75	2.42	
5,050.00	66.55	130.09	4,745.22	796.13	308.67	-347.96	9.00	8.77	2.23	
5,100.00	70.94	131.13	4,763.34	765.80	344.03	-301.52	9.00	8.79	2.08	
5,150.00	75.34	132.12	4,777.84	734.02	379.79	-253.78	9.00	8.80	1.98	
5,200.00	79.75	133.07	4,788.82	700.99	415.72	-205.02	9.00	8.81	1.90	
5,250.00	84.15	133.99	4,795.82	666.90	451.60	-155.55	9.00	8.81	1.85	
5,300.00	88.56	134.90	4,798.80	631.96	487.21	-105.67	9.00	8.82	1.82	
5,318.82	90.20	135.24	4,799.00	618.78	500.36	-87.05	9.00	8.82	1.81	
Start DLS 0.05 TFO 90.07										
5,400.00	90.20	135.28	4,798.72	560.98	557.64	-5.67	0.05	0.00	0.05	
5,478.60	90.20	135.32	4,798.44	505.11	612.93	72.93	0.05	0.00	0.05	
7"										
5,500.00	90.20	135.33	4,798.37	489.89	627.98	94.33	0.05	0.00	0.05	
5,600.00	90.20	135.38	4,798.02	418.74	698.25	194.33	0.05	0.00	0.05	
5,700.00	90.20	135.43	4,797.67	347.53	768.45	294.33	0.05	0.00	0.05	
5,800.00	90.20	135.48	4,797.32	276.26	838.60	394.33	0.05	0.00	0.05	
5,900.00	90.20	135.53	4,796.97	204.93	908.68	494.32	0.05	0.00	0.05	
6,000.00	90.20	135.58	4,796.62	133.54	978.70	594.32	0.05	0.00	0.05	
6,100.00	90.20	135.63	4,796.27	62.08	1,048.66	694.32	0.05	0.00	0.05	
6,200.00	90.20	135.68	4,795.92	-9.44	1,118.55	794.32	0.05	0.00	0.05	
6,300.00	90.20	135.73	4,795.57	-81.02	1,188.38	894.31	0.05	0.00	0.05	
6,400.00	90.20	135.78	4,795.22	-152.66	1,258.15	994.31	0.05	0.00	0.05	
6,500.00	90.20	135.83	4,794.87	-224.36	1,327.85	1,094.30	0.05	0.00	0.05	
6,600.00	90.20	135.88	4,794.52	-296.12	1,397.50	1,194.30	0.05	0.00	0.05	
6,700.00	90.20	135.94	4,794.17	-367.94	1,467.07	1,294.29	0.05	0.00	0.05	
6,800.00	90.20	135.99	4,793.83	-439.83	1,536.59	1,394.28	0.05	0.00	0.05	
6,900.00	90.20	136.04	4,793.48	-511.76	1,606.04	1,494.27	0.05	0.00	0.05	
7,000.00	90.20	136.09	4,793.13	-583.78	1,675.43	1,594.26	0.05	0.00	0.05	
7,100.00	90.20	136.14	4,792.78	-655.85	1,744.76	1,694.25	0.05	0.00	0.05	

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lyrbook UT 753H
Company:	WPX Energy	TVD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Site:	W Lybrook UT 716 Pad	North Reference:	True
Well:	W Lyrbook UT 753H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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)
7,200.00	90.20	136.19	4,792.43	-727.98	1,814.02	1,794.23	0.05	0.00	0.05
7,300.00	90.20	136.24	4,792.08	-800.17	1,883.22	1,894.22	0.05	0.00	0.05
7,400.00	90.20	136.29	4,791.74	-872.42	1,952.35	1,994.20	0.05	0.00	0.05
7,500.00	90.20	136.34	4,791.39	-944.74	2,021.42	2,094.18	0.05	0.00	0.05
7,600.00	90.20	136.39	4,791.04	-1,017.11	2,090.43	2,194.16	0.05	0.00	0.05
7,700.00	90.20	136.44	4,790.69	-1,089.54	2,159.37	2,294.14	0.05	0.00	0.05
7,800.00	90.20	136.49	4,790.35	-1,162.04	2,228.26	2,394.12	0.05	0.00	0.05
7,900.00	90.20	136.54	4,790.00	-1,234.59	2,297.07	2,494.09	0.05	0.00	0.05
8,000.00	90.20	136.59	4,789.65	-1,307.20	2,365.82	2,594.07	0.05	0.00	0.05
8,100.00	90.20	136.64	4,789.30	-1,379.88	2,434.51	2,694.04	0.05	0.00	0.05
8,200.00	90.20	136.69	4,788.96	-1,452.62	2,503.14	2,794.00	0.05	0.00	0.05
8,300.00	90.20	136.74	4,788.61	-1,525.41	2,571.70	2,893.97	0.05	0.00	0.05
8,400.00	90.20	136.79	4,788.26	-1,598.27	2,640.20	2,993.93	0.05	0.00	0.05
8,500.00	90.20	136.84	4,787.92	-1,671.19	2,708.63	3,093.90	0.05	0.00	0.05
8,600.00	90.20	136.89	4,787.57	-1,744.16	2,777.00	3,193.86	0.05	0.00	0.05
8,700.00	90.20	136.94	4,787.22	-1,817.20	2,845.30	3,293.81	0.05	0.00	0.05
8,800.00	90.20	136.99	4,786.88	-1,890.30	2,913.54	3,393.77	0.05	0.00	0.05
8,900.00	90.20	137.04	4,786.53	-1,963.45	2,981.72	3,493.72	0.05	0.00	0.05
9,000.00	90.20	137.09	4,786.19	-2,036.67	3,049.83	3,593.67	0.05	0.00	0.05
9,100.00	90.20	137.14	4,785.84	-2,109.95	3,117.87	3,693.61	0.05	0.00	0.05
9,200.00	90.20	137.20	4,785.49	-2,183.29	3,185.86	3,793.55	0.05	0.00	0.05
9,300.00	90.20	137.25	4,785.15	-2,256.68	3,253.77	3,893.49	0.05	0.00	0.05
9,400.00	90.20	137.30	4,784.80	-2,330.14	3,321.63	3,993.43	0.05	0.00	0.05
9,481.87	90.20	137.34	4,784.52	-2,390.32	3,377.13	4,075.24	0.05	0.00	0.05
Start DLS 0.10 TFO -89.91									
9,500.00	90.20	137.32	4,784.46	-2,403.65	3,389.42	4,093.36	0.10	0.00	-0.10
9,600.00	90.20	137.22	4,784.11	-2,477.11	3,457.27	4,193.30	0.10	0.00	-0.10
9,700.00	90.20	137.12	4,783.77	-2,550.44	3,525.26	4,293.24	0.10	0.00	-0.10
9,800.00	90.20	137.02	4,783.42	-2,623.66	3,593.37	4,393.19	0.10	0.00	-0.10
9,900.00	90.20	136.92	4,783.07	-2,696.76	3,661.61	4,493.15	0.10	0.00	-0.10
10,000.00	90.20	136.82	4,782.73	-2,769.74	3,729.97	4,593.10	0.10	0.00	-0.10
10,100.00	90.20	136.72	4,782.38	-2,842.59	3,798.47	4,693.07	0.10	0.00	-0.10
10,200.00	90.20	136.62	4,782.03	-2,915.33	3,867.09	4,793.04	0.10	0.00	-0.10
10,300.00	90.20	136.52	4,781.69	-2,987.95	3,935.84	4,893.01	0.10	0.00	-0.10
10,400.00	90.20	136.42	4,781.34	-3,060.45	4,004.71	4,992.99	0.10	0.00	-0.10
10,500.00	90.20	136.32	4,780.99	-3,132.83	4,073.71	5,092.97	0.10	0.00	-0.10
10,600.00	90.20	136.22	4,780.64	-3,205.09	4,142.84	5,192.95	0.10	0.00	-0.10
10,700.00	90.20	136.12	4,780.29	-3,277.23	4,212.09	5,292.93	0.10	0.00	-0.10
10,800.00	90.20	136.02	4,779.94	-3,349.25	4,281.47	5,392.92	0.10	0.00	-0.10
10,900.00	90.20	135.92	4,779.60	-3,421.15	4,350.97	5,492.91	0.10	0.00	-0.10
11,000.00	90.20	135.82	4,779.25	-3,492.92	4,420.60	5,592.91	0.10	0.00	-0.10
11,100.00	90.20	135.72	4,778.90	-3,564.57	4,490.36	5,692.90	0.10	0.00	-0.10
11,200.00	90.20	135.62	4,778.55	-3,636.10	4,560.24	5,792.90	0.10	0.00	-0.10
11,300.00	90.20	135.52	4,778.20	-3,707.51	4,630.24	5,892.90	0.10	0.00	-0.10
11,400.00	90.20	135.42	4,777.85	-3,778.80	4,700.37	5,992.90	0.10	0.00	-0.10
11,500.00	90.20	135.32	4,777.50	-3,849.97	4,770.62	6,092.90	0.10	0.00	-0.10
11,600.00	90.20	135.22	4,777.15	-3,921.01	4,841.00	6,192.89	0.10	0.00	-0.10
11,700.00	90.20	135.12	4,776.79	-3,991.93	4,911.50	6,292.89	0.10	0.00	-0.10
11,800.00	90.20	135.02	4,776.44	-4,062.72	4,982.12	6,392.89	0.10	0.00	-0.10
11,900.00	90.20	134.92	4,776.09	-4,133.40	5,052.87	6,492.89	0.10	0.00	-0.10
12,000.00	90.20	134.82	4,775.74	-4,203.94	5,123.74	6,592.89	0.10	0.00	-0.10
12,100.00	90.20	134.72	4,775.39	-4,274.37	5,194.74	6,692.88	0.10	0.00	-0.10

Scientific Drilling Int.
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lyrbook UT 753H
Company:	WPX Energy	TVD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Site:	W Lybrook UT 716 Pad	North Reference:	True
Well:	W Lyrbook UT 753H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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)
12,200.00	90.20	134.62	4,775.04	-4,344.67	5,265.85	6,792.88	0.10	0.00	-0.10
12,300.00	90.20	134.52	4,774.68	-4,414.85	5,337.09	6,892.87	0.10	0.00	-0.10
12,400.00	90.20	134.42	4,774.33	-4,484.90	5,408.46	6,992.86	0.10	0.00	-0.10
12,500.00	90.20	134.32	4,773.98	-4,554.83	5,479.94	7,092.85	0.10	0.00	-0.10
12,600.00	90.20	134.22	4,773.63	-4,624.63	5,551.55	7,192.83	0.10	0.00	-0.10
12,700.00	90.20	134.12	4,773.27	-4,694.31	5,623.27	7,292.82	0.10	0.00	-0.10
12,800.00	90.20	134.02	4,772.92	-4,763.86	5,695.12	7,392.80	0.10	0.00	-0.10
12,900.00	90.20	133.92	4,772.57	-4,833.29	5,767.09	7,492.77	0.10	0.00	-0.10
13,000.00	90.20	133.82	4,772.21	-4,902.59	5,839.18	7,592.74	0.10	0.00	-0.10
13,100.00	90.20	133.72	4,771.86	-4,971.77	5,911.40	7,692.71	0.10	0.00	-0.10
13,200.00	90.20	133.62	4,771.50	-5,040.82	5,983.73	7,792.67	0.10	0.00	-0.10
13,300.00	90.20	133.52	4,771.15	-5,109.74	6,056.18	7,892.63	0.10	0.00	-0.10
13,400.00	90.20	133.42	4,770.79	-5,178.54	6,128.75	7,992.58	0.10	0.00	-0.10
13,500.00	90.20	133.32	4,770.44	-5,247.21	6,201.45	8,092.52	0.10	0.00	-0.10
13,600.00	90.20	133.22	4,770.08	-5,315.75	6,274.26	8,192.46	0.10	0.00	-0.10
13,700.00	90.20	133.12	4,769.73	-5,384.16	6,347.19	8,292.40	0.10	0.00	-0.10
13,800.00	90.20	133.02	4,769.37	-5,452.45	6,420.25	8,392.33	0.10	0.00	-0.10
13,900.00	90.20	132.92	4,769.02	-5,520.61	6,493.42	8,492.25	0.10	0.00	-0.10
14,000.00	90.20	132.82	4,768.66	-5,588.65	6,566.71	8,592.16	0.10	0.00	-0.10
14,100.00	90.20	132.72	4,768.30	-5,656.55	6,640.11	8,692.07	0.10	0.00	-0.10
14,200.00	90.20	132.62	4,767.95	-5,724.33	6,713.84	8,791.97	0.10	0.00	-0.10
14,300.00	90.20	132.52	4,767.59	-5,791.98	6,787.29	8,891.86	0.10	0.00	-0.10
14,338.75	90.20	132.48	4,767.45	-5,818.16	6,815.85	8,930.56	0.10	0.00	-0.10
Start 1527.84 hold at 14338.75 MD									
14,400.00	90.20	132.48	4,767.23	-5,859.52	6,881.03	8,991.74	0.00	0.00	0.00
14,500.00	90.20	132.48	4,766.88	-5,927.06	6,934.78	9,091.62	0.00	0.00	0.00
14,600.00	90.20	132.48	4,766.52	-5,994.59	7,008.52	9,191.51	0.00	0.00	0.00
14,700.00	90.20	132.48	4,766.16	-6,062.12	7,082.27	9,291.39	0.00	0.00	0.00
14,800.00	90.20	132.48	4,765.81	-6,129.66	7,156.02	9,391.27	0.00	0.00	0.00
14,900.00	90.20	132.48	4,765.45	-6,197.19	7,229.77	9,491.16	0.00	0.00	0.00
15,000.00	90.20	132.48	4,765.09	-6,264.73	7,303.52	9,591.04	0.00	0.00	0.00
15,100.00	90.20	132.48	4,764.74	-6,332.26	7,377.27	9,690.92	0.00	0.00	0.00
15,200.00	90.20	132.48	4,764.38	-6,399.80	7,451.02	9,790.81	0.00	0.00	0.00
15,300.00	90.20	132.48	4,764.02	-6,467.33	7,524.77	9,890.69	0.00	0.00	0.00
15,400.00	90.20	132.48	4,763.67	-6,534.87	7,598.52	9,990.57	0.00	0.00	0.00
15,500.00	90.20	132.48	4,763.31	-6,602.40	7,672.27	10,090.46	0.00	0.00	0.00
15,600.00	90.20	132.48	4,762.95	-6,669.93	7,746.02	10,190.34	0.00	0.00	0.00
15,700.00	90.20	132.48	4,762.59	-6,737.47	7,819.77	10,290.23	0.00	0.00	0.00
15,800.00	90.20	132.48	4,762.24	-6,805.00	7,893.52	10,390.11	0.00	0.00	0.00
15,866.58	90.20	132.48	4,762.00	-6,849.97	7,942.62	10,456.62	0.00	0.00	0.00
TD at 15866.58									

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lyrbook UT 753H
Company:	WPX Energy	TVD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6719 + KB 21 = @ 6740.00usft (Cyclone 32)
Site:	W Lybrook UT 716 Pad	North Reference:	True
Well:	W Lyrbook UT 753H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
753H BHL	0.00	0.00	4,762.00	-6,849.97	7,942.62	1,894,236.97	532,239.07	36.205982	-107.724057
- plan hits target center									
- Point									
753H POE	0.00	0.00	4,799.00	548.57	604.64	1,901,629.27	524,894.81	36.226310	-107.748929
- plan misses target center by 24.68usft at 5441.87usft MD (4798.57 TVD, 531.22 N, 587.10 E)									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(usft)	(usft)		(")	(")
5,478.60	4,798.44	7"	7	8-3/4

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W		
(usft)	(usft)	(usft)	(usft)		
321.00	320.97	-2.44	-1.65	Start Drop -2.00	
362.50	362.47	-2.41	-1.95	Start 137.53 hold at 362.50 MD	
500.03	500.00	-2.41	-1.95	Start Build 2.00	
1,353.68	1,341.07	123.68	-8.26	Start 2822.50 hold at 1353.68 MD	
4,176.18	4,039.19	951.30	-49.67	KOP	
4,176.18	4,039.19	951.30	-49.67	Start DLS 9.00 TFO 136.78	
5,318.62	4,799.00	618.78	500.36	Start DLS 0.05 TFO 90.07	
9,481.87	4,784.52	-2,390.32	3,377.13	Start DLS 0.10 TFO -89.91	
14,338.75	4,767.45	-5,818.16	6,815.85	Start 1527.84 hold at 14338.75 MD	
15,866.58	4,762.00	-8,849.97	7,942.62	TD at 15866.58	