

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.**

5. Lease Serial No.
NMNM 004958

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

WPX Energy Production, LLC

3a. Address

PO Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

505-333-1808

7. If Unit of CA/Agreement, Name and/or No.
NMNM 135255A

8. Well Name and No.

Kimbeto Wash Unit 770H

9. API Well No.

30-045-35755

10. Field and Pool or Exploratory Area
Basin Mancos

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

SHL: 409' FSL & 1115' FEL Sec 17 T23N R9W Unit: P

SHL: 330' FNL & 1265' FEL Sec 18 T23N R9W Unit: A

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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water ShutOff
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>Change in Plans</u>
	☒ Change Plans	☒ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete 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 Point of Entry (POE), Bottom-hole (BHL) & Total Depth (TD), per attached OPS & Directional Drill Plan & C102 Plat.

NMOCD

FEB 26 2018

DISTRICT III

RECEIVED

FEB 07 2018

**ADHERE TO PREVIOUS NMOCD
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Marie E. Florez

Title: Permit Tech

**Farmington Field Office
Bureau of Land Management**

Signature

Marie E. Florez

Date: 2/6/18

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

John Harvey

Title

PE

Date

2/21/18

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

FPO

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCD

13

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

Certificate Number 15269



WPX Energy

Operations Plan

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

<u>Date:</u>	January 31, 2018	<u>Field:</u>	Basin Mancos
<u>Well Name:</u>	Kimbeto Wash Unit #770H	<u>Surface:</u>	BLM
<u>SH Location:</u>	SESE SEC 17-23N-09W	<u>Elevation:</u>	6,561'
<u>BH Location:</u>	NENE SEC 18-23N-09W	<u>Minerals:</u>	FED

Measured Depth: 11,736'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (KB)

NAME	MD	TVD	NAME	MD	TVD
Ojo Alamo	120	120	Mancos	3522	3393
Kirtland	275	275	Gallup	3900	3751
Picture Cliffs	834	832			
Lewis	992	988	KICKOFF POINT	3406	3281
Chacra	1245	1233	LANDING POINT	4576	4075
Cliff House	2313	2245	TOP TARGET	4576	4075
Menefee	2332	2263			
Point Lookout	3414	3288	TD	11736	4110

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'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	4576'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	4426' - 11736'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 4426'	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 cancellation 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, 28.0 bbls, 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/ 28.0 Bbls). TOC at Surface.

2. Intermediate:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 98 bbls, 282 sks, (549 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 96 bbls, 416 sks, (541 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 180 bbl Drilling mud or water. Total Cement: 194 bbls, 698 sks, (1090 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 (680 sx /925 cuft /165 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-143bbl Fr Water. Total Cement: 165 bbls, 680 sks, (925 cuft)

D. COMPLETION:

Run CCL for perforating

A. PRESSURE TEST:

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

B. STIMULATION:

1. Stimulate with approximately 1,000#/ft 20/40 mesh sand and +/- 200' stage interval for full lateral length of the well with water and N2. 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

KWU 771 Pad

KWU #770H

API: ???

Wellbore #1

Plan: Plan #2

Standard Planning Report

19 January, 2018



www.scientificdrilling.com

KWU #770H
T23N R9W
Northing: 1899529.38
Easting: 507927.97
Plan #2

GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
 6561.00



Azimuths to True North
 Magnetic North: 9.03°

Magnetic Field
 Strength: 49585.1nT
 Dip Angle: 62.78°
 Date: 1/17/2018
 Model: HDGM



WELL DETAILS KWU #770H

Ground Level: 6561.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1899529.38	507927.97	36.220568	-107.806456

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00
1333.19	18.66	168.14	1316.78	-147.43	30.97	2.00	168.14	-126.47
3405.92	18.66	168.14	3280.51	-796.57	167.34	0.00	0.00	-683.29
4576.01	89.72	315.22	4075.00	-465.69	-365.45	9.00	145.71	-73.14
11736.27	89.72	315.22	4110.00	4616.55	-5409.15	0.00	0.00	7087.04

SITE DETAILS: KWU 771 Pad

Site Centre Northing: 1899574.16
 Easting: 507967.48

Positional Uncertainty: 0.00
 Convergence: 0.02
 Local North: True

PROJECT DETAILS: T23N R9W

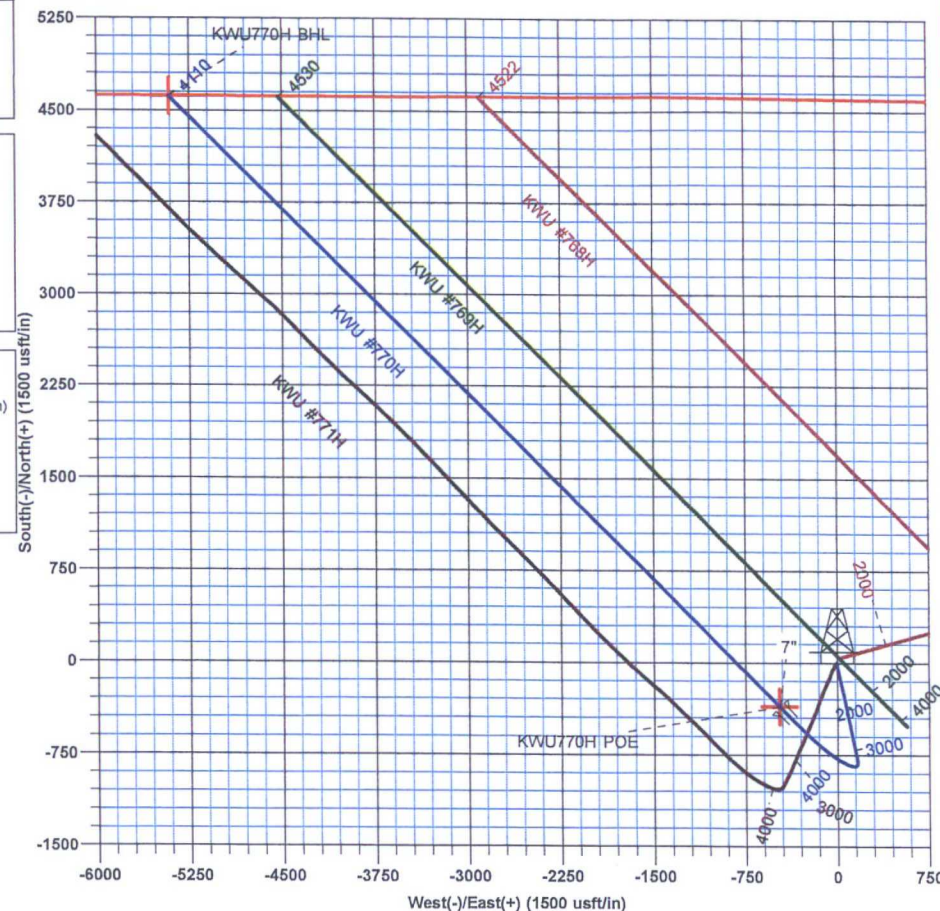
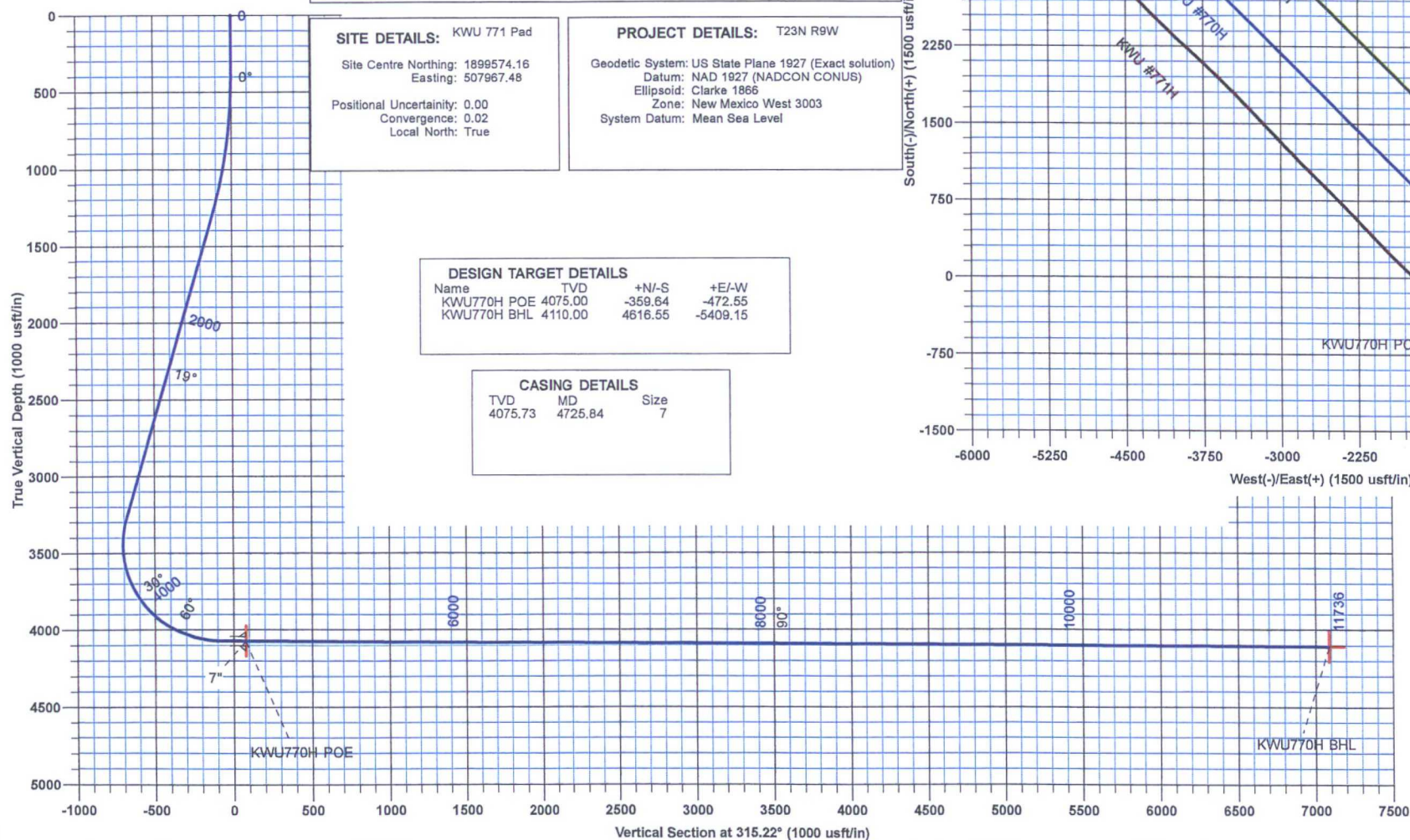
Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003
 System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W
KWU770H POE	4075.00	-359.64	-472.55
KWU770H BHL	4110.00	4616.55	-5409.15

CASING DETAILS

TVD	MD	Size
4075.73	4725.84	7



Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well KWU #770H
Company:	WPX Energy	TVD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	North Reference:	True
Well:	KWU #770H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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	KWU 771 Pad		
Site Position:		Northing:	1,899,574.16 usft
From:	Map	Easting:	507,967.48 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	36.220691
		Longitude:	-107.806322
		Grid Convergence:	0.02 °

Well	KWU #770H		
Well Position	+N/-S	-44.77 usft	Northing:
	+E/-W	-39.52 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.220568
		Longitude:	-107.806456
		Ground Level:	6,561.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	1/17/2018	9.03
			Dip Angle (°)
			62.78
			Field Strength (nT)
			49,585

Design	Plan #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (°)
			315.22

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,333.19	18.66	168.14	1,316.78	-147.43	30.97	2.00	2.00	0.00	168.14	
3,405.92	18.66	168.14	3,280.51	-796.57	167.34	0.00	0.00	0.00	0.00	
4,576.01	89.72	315.22	4,075.00	-465.69	-365.45	9.00	6.07	12.57	145.71	
11,736.27	89.72	315.22	4,110.00	4,616.55	-5,409.15	0.00	0.00	0.00	0.00	KWU770H BHL

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well KWU #770H
Company:	WPX Energy	TVD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	North Reference:	True
Well:	KWU #770H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
Ojo Alamo									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	2.00	168.14	499.98	-1.71	0.36	-1.46	2.00	2.00	0.00
600.00	4.00	168.14	599.84	-6.83	1.43	-5.86	2.00	2.00	0.00
700.00	6.00	168.14	699.45	-15.36	3.23	-13.17	2.00	2.00	0.00
800.00	8.00	168.14	798.70	-27.28	5.73	-23.40	2.00	2.00	0.00
833.65	8.67	168.14	832.00	-32.06	6.73	-27.50	2.00	2.00	0.00
Picture Cliffs									
900.00	10.00	168.14	897.47	-42.59	8.95	-36.54	2.00	2.00	0.00
992.21	11.84	168.14	988.00	-59.69	12.54	-51.20	2.00	2.00	0.00
Lewis									
1,000.00	12.00	168.14	995.62	-61.27	12.87	-52.55	2.00	2.00	0.00
1,100.00	14.00	168.14	1,093.06	-83.28	17.49	-71.44	2.00	2.00	0.00
1,200.00	16.00	168.14	1,189.64	-108.61	22.81	-93.16	2.00	2.00	0.00
1,245.21	16.90	168.14	1,233.00	-121.14	25.45	-103.91	2.00	2.00	0.00
Chacra									
1,300.00	18.00	168.14	1,285.27	-137.22	28.83	-117.70	2.00	2.00	0.00
1,333.19	18.66	168.14	1,316.78	-147.43	30.97	-126.47	2.00	2.00	0.00
1,400.00	18.66	168.14	1,380.07	-168.36	35.37	-144.41	0.00	0.00	0.00
1,500.00	18.66	168.14	1,474.81	-199.68	41.95	-171.28	0.00	0.00	0.00
1,600.00	18.66	168.14	1,569.55	-230.99	48.52	-198.14	0.00	0.00	0.00
1,700.00	18.66	168.14	1,664.29	-262.31	55.10	-225.01	0.00	0.00	0.00
1,800.00	18.66	168.14	1,759.04	-293.63	61.68	-251.87	0.00	0.00	0.00
1,900.00	18.66	168.14	1,853.78	-324.95	68.26	-278.74	0.00	0.00	0.00
2,000.00	18.66	168.14	1,948.52	-356.27	74.84	-305.60	0.00	0.00	0.00
2,100.00	18.66	168.14	2,043.26	-387.58	81.42	-332.46	0.00	0.00	0.00
2,200.00	18.66	168.14	2,138.00	-418.90	88.00	-359.33	0.00	0.00	0.00
2,300.00	18.66	168.14	2,232.74	-450.22	94.58	-386.19	0.00	0.00	0.00
2,312.94	18.66	168.14	2,245.00	-454.27	95.43	-389.67	0.00	0.00	0.00
Cliff House									
2,331.94	18.66	168.14	2,263.00	-460.22	96.68	-394.77	0.00	0.00	0.00
Menefee									
2,400.00	18.66	168.14	2,327.48	-481.54	101.16	-413.06	0.00	0.00	0.00
2,500.00	18.66	168.14	2,422.22	-512.86	107.74	-439.92	0.00	0.00	0.00
2,600.00	18.66	168.14	2,516.97	-544.17	114.31	-466.78	0.00	0.00	0.00
2,700.00	18.66	168.14	2,611.71	-575.49	120.89	-493.65	0.00	0.00	0.00
2,800.00	18.66	168.14	2,706.45	-606.81	127.47	-520.51	0.00	0.00	0.00
2,900.00	18.66	168.14	2,801.19	-638.13	134.05	-547.38	0.00	0.00	0.00
3,000.00	18.66	168.14	2,895.93	-669.45	140.63	-574.24	0.00	0.00	0.00
3,100.00	18.66	168.14	2,990.67	-700.76	147.21	-601.11	0.00	0.00	0.00
3,200.00	18.66	168.14	3,085.41	-732.08	153.79	-627.97	0.00	0.00	0.00
3,300.00	18.66	168.14	3,180.15	-763.40	160.37	-654.83	0.00	0.00	0.00
3,405.92	18.66	168.14	3,280.51	-796.57	167.34	-683.29	0.00	0.00	0.00
3,413.82	18.08	169.43	3,288.00	-799.01	167.82	-685.36	9.00	-7.38	16.34
Point Lookout									
3,450.00	15.54	176.50	3,322.64	-809.37	169.15	-693.65	9.00	-7.02	19.55
3,500.00	12.57	190.53	3,371.15	-821.42	168.56	-701.79	9.00	-5.94	28.07

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well KWU #770H
Company:	WPX Energy	TVD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	North Reference:	True
Well:	KWU #770H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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)
3,522.35	11.57	198.87	3,393.00	-825.93	167.39	-704.17	9.00	-4.51	37.30
Mancos									
3,550.00	10.71	211.00	3,420.14	-830.76	165.17	-706.03	9.00	-3.09	43.86
3,600.00	10.55	235.56	3,469.30	-837.33	159.00	-706.35	9.00	-0.31	49.11
3,650.00	12.17	257.05	3,518.34	-841.10	150.08	-702.74	9.00	3.23	42.99
3,700.00	15.00	272.08	3,566.96	-842.05	138.48	-695.24	9.00	5.65	30.07
3,750.00	18.48	282.02	3,614.84	-840.16	124.25	-683.88	9.00	6.98	19.86
3,800.00	22.33	288.76	3,661.70	-835.46	107.50	-668.74	9.00	7.69	13.49
3,850.00	26.37	293.57	3,707.25	-827.96	88.32	-649.91	9.00	8.09	9.62
3,899.77	30.51	297.15	3,751.00	-817.77	66.93	-627.61	9.00	8.33	7.19
Gallup									
3,900.00	30.53	297.16	3,751.20	-817.71	66.83	-627.50	9.00	8.41	6.29
3,950.00	34.77	299.96	3,793.29	-804.79	43.16	-601.65	9.00	8.48	5.60
4,000.00	39.07	302.22	3,833.26	-789.26	17.47	-572.53	9.00	8.58	4.51
4,050.00	43.39	304.09	3,870.85	-771.22	-10.10	-540.31	9.00	8.66	3.74
4,100.00	47.75	305.68	3,905.85	-750.79	-39.37	-505.19	9.00	8.71	3.19
4,150.00	52.12	307.07	3,938.02	-728.09	-70.16	-467.39	9.00	8.75	2.77
4,156.52	52.69	307.24	3,942.00	-724.97	-74.28	-462.28	9.00	8.76	2.58
Gallup Upper									
4,200.00	56.51	308.30	3,967.18	-703.26	-102.28	-427.14	9.00	8.78	2.44
4,250.00	60.91	309.42	3,993.15	-676.45	-135.54	-384.69	9.00	8.80	2.22
4,300.00	65.31	310.44	4,015.76	-647.84	-169.72	-340.29	9.00	8.81	2.04
4,350.00	69.73	311.39	4,034.87	-617.58	-204.63	-294.23	9.00	8.83	1.90
4,400.00	74.15	312.29	4,050.37	-585.88	-240.03	-246.79	9.00	8.84	1.80
4,450.00	78.57	313.15	4,062.16	-552.93	-275.72	-198.26	9.00	8.84	1.72
4,465.20	79.91	313.40	4,065.00	-542.69	-286.59	-183.34	9.00	8.85	1.68
Geologic Target Top									
4,500.00	82.99	313.98	4,070.17	-518.92	-311.47	-148.94	9.00	8.85	1.66
4,550.00	87.42	314.80	4,074.35	-484.08	-347.07	-99.14	9.00	8.85	1.63
4,576.01	89.72	315.22	4,075.00	-465.69	-365.45	-73.14	9.00	8.85	1.62
4,600.00	89.72	315.22	4,075.12	-448.66	-382.35	-49.15	0.00	0.00	0.00
4,700.00	89.72	315.22	4,075.61	-377.68	-452.79	50.85	0.00	0.00	0.00
4,725.84	89.72	315.22	4,075.73	-359.34	-470.99	76.69	0.00	0.00	0.00
7"									
4,800.00	89.72	315.22	4,076.09	-306.70	-523.23	150.85	0.00	0.00	0.00
4,900.00	89.72	315.22	4,076.58	-235.73	-593.67	250.85	0.00	0.00	0.00
5,000.00	89.72	315.22	4,077.07	-164.75	-664.11	350.85	0.00	0.00	0.00
5,100.00	89.72	315.22	4,077.56	-93.77	-734.55	450.85	0.00	0.00	0.00
5,200.00	89.72	315.22	4,078.05	-22.79	-804.99	550.85	0.00	0.00	0.00
5,300.00	89.72	315.22	4,078.54	48.19	-875.43	650.85	0.00	0.00	0.00
5,400.00	89.72	315.22	4,079.03	119.17	-945.87	750.84	0.00	0.00	0.00
5,500.00	89.72	315.22	4,079.52	190.14	-1,016.31	850.84	0.00	0.00	0.00
5,600.00	89.72	315.22	4,080.01	261.12	-1,086.75	950.84	0.00	0.00	0.00
5,700.00	89.72	315.22	4,080.49	332.10	-1,157.19	1,050.84	0.00	0.00	0.00
5,800.00	89.72	315.22	4,080.98	403.08	-1,227.63	1,150.84	0.00	0.00	0.00
5,900.00	89.72	315.22	4,081.47	474.06	-1,298.07	1,250.84	0.00	0.00	0.00
6,000.00	89.72	315.22	4,081.96	545.04	-1,368.51	1,350.84	0.00	0.00	0.00
6,100.00	89.72	315.22	4,082.45	616.02	-1,438.95	1,450.84	0.00	0.00	0.00
6,200.00	89.72	315.22	4,082.94	686.99	-1,509.39	1,550.83	0.00	0.00	0.00
6,300.00	89.72	315.22	4,083.43	757.97	-1,579.83	1,650.83	0.00	0.00	0.00
6,400.00	89.72	315.22	4,083.92	828.95	-1,650.27	1,750.83	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well KWU #770H
Company:	WPX Energy	TVD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	North Reference:	True
Well:	KWU #770H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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)
6,500.00	89.72	315.22	4,084.40	899.93	-1,720.71	1,850.83	0.00	0.00	0.00
6,600.00	89.72	315.22	4,084.89	970.91	-1,791.15	1,950.83	0.00	0.00	0.00
6,700.00	89.72	315.22	4,085.38	1,041.89	-1,861.59	2,050.83	0.00	0.00	0.00
6,800.00	89.72	315.22	4,085.87	1,112.87	-1,932.03	2,150.83	0.00	0.00	0.00
6,900.00	89.72	315.22	4,086.36	1,183.84	-2,002.47	2,250.83	0.00	0.00	0.00
7,000.00	89.72	315.22	4,086.85	1,254.82	-2,072.91	2,350.83	0.00	0.00	0.00
7,100.00	89.72	315.22	4,087.34	1,325.80	-2,143.35	2,450.82	0.00	0.00	0.00
7,200.00	89.72	315.22	4,087.83	1,396.78	-2,213.79	2,550.82	0.00	0.00	0.00
7,300.00	89.72	315.22	4,088.32	1,467.76	-2,284.23	2,650.82	0.00	0.00	0.00
7,400.00	89.72	315.22	4,088.80	1,538.74	-2,354.67	2,750.82	0.00	0.00	0.00
7,500.00	89.72	315.22	4,089.29	1,609.71	-2,425.11	2,850.82	0.00	0.00	0.00
7,600.00	89.72	315.22	4,089.78	1,680.69	-2,495.55	2,950.82	0.00	0.00	0.00
7,700.00	89.72	315.22	4,090.27	1,751.67	-2,565.99	3,050.82	0.00	0.00	0.00
7,800.00	89.72	315.22	4,090.76	1,822.65	-2,636.43	3,150.82	0.00	0.00	0.00
7,900.00	89.72	315.22	4,091.25	1,893.63	-2,706.87	3,250.81	0.00	0.00	0.00
8,000.00	89.72	315.22	4,091.74	1,964.61	-2,777.31	3,350.81	0.00	0.00	0.00
8,100.00	89.72	315.22	4,092.23	2,035.59	-2,847.75	3,450.81	0.00	0.00	0.00
8,200.00	89.72	315.22	4,092.71	2,106.56	-2,918.19	3,550.81	0.00	0.00	0.00
8,300.00	89.72	315.22	4,093.20	2,177.54	-2,988.63	3,650.81	0.00	0.00	0.00
8,400.00	89.72	315.22	4,093.69	2,248.52	-3,059.07	3,750.81	0.00	0.00	0.00
8,500.00	89.72	315.22	4,094.18	2,319.50	-3,129.51	3,850.81	0.00	0.00	0.00
8,600.00	89.72	315.22	4,094.67	2,390.48	-3,199.95	3,950.81	0.00	0.00	0.00
8,700.00	89.72	315.22	4,095.16	2,461.46	-3,270.39	4,050.80	0.00	0.00	0.00
8,800.00	89.72	315.22	4,095.65	2,532.44	-3,340.84	4,150.80	0.00	0.00	0.00
8,900.00	89.72	315.22	4,096.14	2,603.41	-3,411.28	4,250.80	0.00	0.00	0.00
9,000.00	89.72	315.22	4,096.62	2,674.39	-3,481.72	4,350.80	0.00	0.00	0.00
9,100.00	89.72	315.22	4,097.11	2,745.37	-3,552.16	4,450.80	0.00	0.00	0.00
9,200.00	89.72	315.22	4,097.60	2,816.35	-3,622.60	4,550.80	0.00	0.00	0.00
9,300.00	89.72	315.22	4,098.09	2,887.33	-3,693.04	4,650.80	0.00	0.00	0.00
9,400.00	89.72	315.22	4,098.58	2,958.31	-3,763.48	4,750.80	0.00	0.00	0.00
9,500.00	89.72	315.22	4,099.07	3,029.28	-3,833.92	4,850.80	0.00	0.00	0.00
9,600.00	89.72	315.22	4,099.56	3,100.26	-3,904.36	4,950.79	0.00	0.00	0.00
9,700.00	89.72	315.22	4,100.05	3,171.24	-3,974.80	5,050.79	0.00	0.00	0.00
9,800.00	89.72	315.22	4,100.54	3,242.22	-4,045.24	5,150.79	0.00	0.00	0.00
9,900.00	89.72	315.22	4,101.02	3,313.20	-4,115.68	5,250.79	0.00	0.00	0.00
10,000.00	89.72	315.22	4,101.51	3,384.18	-4,186.12	5,350.79	0.00	0.00	0.00
10,100.00	89.72	315.22	4,102.00	3,455.16	-4,256.56	5,450.79	0.00	0.00	0.00
10,200.00	89.72	315.22	4,102.49	3,526.13	-4,327.00	5,550.79	0.00	0.00	0.00
10,300.00	89.72	315.22	4,102.98	3,597.11	-4,397.44	5,650.79	0.00	0.00	0.00
10,400.00	89.72	315.22	4,103.47	3,668.09	-4,467.88	5,750.78	0.00	0.00	0.00
10,500.00	89.72	315.22	4,103.96	3,739.07	-4,538.32	5,850.78	0.00	0.00	0.00
10,600.00	89.72	315.22	4,104.45	3,810.05	-4,608.76	5,950.78	0.00	0.00	0.00
10,700.00	89.72	315.22	4,104.93	3,881.03	-4,679.20	6,050.78	0.00	0.00	0.00
10,800.00	89.72	315.22	4,105.42	3,952.01	-4,749.64	6,150.78	0.00	0.00	0.00
10,900.00	89.72	315.22	4,105.91	4,022.98	-4,820.08	6,250.78	0.00	0.00	0.00
11,000.00	89.72	315.22	4,106.40	4,093.96	-4,890.52	6,350.78	0.00	0.00	0.00
11,100.00	89.72	315.22	4,106.89	4,164.94	-4,960.96	6,450.78	0.00	0.00	0.00
11,200.00	89.72	315.22	4,107.38	4,235.92	-5,031.40	6,550.78	0.00	0.00	0.00
11,300.00	89.72	315.22	4,107.87	4,306.90	-5,101.84	6,650.77	0.00	0.00	0.00
11,400.00	89.72	315.22	4,108.36	4,377.88	-5,172.28	6,750.77	0.00	0.00	0.00
11,500.00	89.72	315.22	4,108.85	4,448.85	-5,242.72	6,850.77	0.00	0.00	0.00
11,531.69	89.72	315.22	4,109.00	4,471.35	-5,265.04	6,882.46	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well KWU #770H
Company:	WPX Energy	TVD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Project:	T23N R9W	MD Reference:	GL 6561 + KB 21 = @ 6582.00usft (Cyclone 32)
Site:	KWU 771 Pad	North Reference:	True
Well:	KWU #770H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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)
Geologic Target Base									
11,600.00	89.72	315.22	4,109.33	4,519.83	-5,313.16	6,950.77	0.00	0.00	0.00
11,700.00	89.72	315.22	4,109.82	4,590.81	-5,383.60	7,050.77	0.00	0.00	0.00
11,736.27	89.72	315.22	4,110.00	4,616.55	-5,409.15	7,087.04	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KWU770H POE - plan misses target center by 1.51usft at 4726.72usft MD (4075.74 TVD, -358.72 N, -471.61 E) - Point	0.00	0.00	4,075.00	-359.64	-472.55	1,899,169.61	507,455.52	36.219580	-107.808058
KWU770H BHL - plan hits target center - Point	0.00	0.00	4,110.00	4,616.55	-5,409.15	1,904,144.43	502,517.54	36.233249	-107.824797

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
4,725.84	4,075.73	7"	7	8-3/4		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
120.00	120.00	Ojo Alamo				
833.65	832.00	Picture Cliffs				
992.21	988.00	Lewis				
1,245.21	1,233.00	Chacra				
2,312.94	2,245.00	Cliff House				
2,331.94	2,263.00	Menefee				
3,413.82	3,288.00	Point Lookout				
3,522.35	3,393.00	Mancos				
3,899.77	3,751.00	Gallup				
4,156.52	3,942.00	Gallup Upper				
4,465.20	4,065.00	Geologic Target Top				
11,531.69	4,109.00	Geologic Target Base				

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

in Bloomfield, NM to WPX Energy Production, LLC KWU #770H

409' FSL & 1115' FEL, Section 17, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.220580°N Longitude: 107.807071°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 2.7 miles to begin proposed access on left-hand side of County Road #7820 which continues for 53.9' to staked WPX KWU #770H location.