State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
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: 12-16-15
Well information;
Operator WPX, Well Name and Number NE Chaco Com #933H

API# 30-039-31356 Section 8, Township 23 N/S, Range 6 E/W

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

- X Notify Aztec OCD 24hrs prior to casing & cement.
- X Hold C-104 for directional survey & "As Drilled" Plat
- X Hold C-104 for NSL, NSP, DHC
- o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- o 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
- o 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
- ✓ 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.

NMOCD Approved by Signature

1-24-2016
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3460 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

Form 3160-3
(September 2001)

OIL CONS. DIV DIST. 3

JAN 19 2016

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

RECEIVED
DEC 16 2015
Farmington Field Office
Bureau of Land Management

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER	5. Lease Serial No. NMSF 078359
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone	6. If Indian, Allottee or Tribe Name
2. Name of Operator WPX Energy Production, LLC	7. If Unit or CA Agreement, Name and No. NMNM 132829
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 L 1379' FSL & 263' FWL SEC 8 23N 6W At proposed prod. zone B 330' FNL & 2445' FEL SEC 1 23N 7W	8. Lease Name and Well No. NE Chaco Com #933H
	9. API Well No. 30-039-31356
	10. Field and Pool, or Exploratory Chaco Unit NE HZ (Oil)
	11. Sec., T., R., M., or Blk. and Survey or Area SHL: Sec 8, T23N, R6W BHL: Sec 1, T23N, R7W
14. Distance in miles and direction from nearest town or post office* From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield NM travel S. on Hwy 550 for 50.2 to MM 101.0	12. County or Parish Rio Arriba County / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of Acres in lease 2461.69 ~~2462~~ Acres / 17. Spacing Unit dedicated to this well 1890.12 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 22'	19. Proposed Depth 17606' MD / 5320' TVD / 20. BLM/BIA Bond No. on file UTB000178
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6832' GR	22. Approximate date work will start* April 15, 2016 / 23. Estimated duration 1 month

KP

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)* Lacey Granillo	Date 12/16/15
Title Permit Tech.III		
Approved by *(Signature)* /s/ Maurice O	Name *(Printed/Typed)*	Date 1/13/16
Title AFM	Office FFO	

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 Chaco Unit NE HZ (Oil) 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 is on lease and will be twinned with the NE Chaco Com #910H/941H along with the NE Chaco Com #199H/200H/268H/269H that have previously been drilled.

This location has been archaeologically surveyed by La Plata Archeological Consultants. Copies of their report have been submitted directly to the BLM.

No new access road is needed.

The existing pipeline from NE Chaco Com #199H will be utilized.

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

NMOCD

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

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

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

OIL CONS. DIV DIST. 3

JAN 19 2016

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-31356	98088	CHACO UNIT NE HZ (OIL)

4 Property Code	5 Property Name	6 Well Number
313800	NE CHACO COM	933H

7 OGRID No.	8 Operator Name	9 Elevation
120782	WPX ENERGY PRODUCTION, LLC	6832

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
L	8	23N	6W		1379	SOUTH	263	WEST	RIO ARRIBA

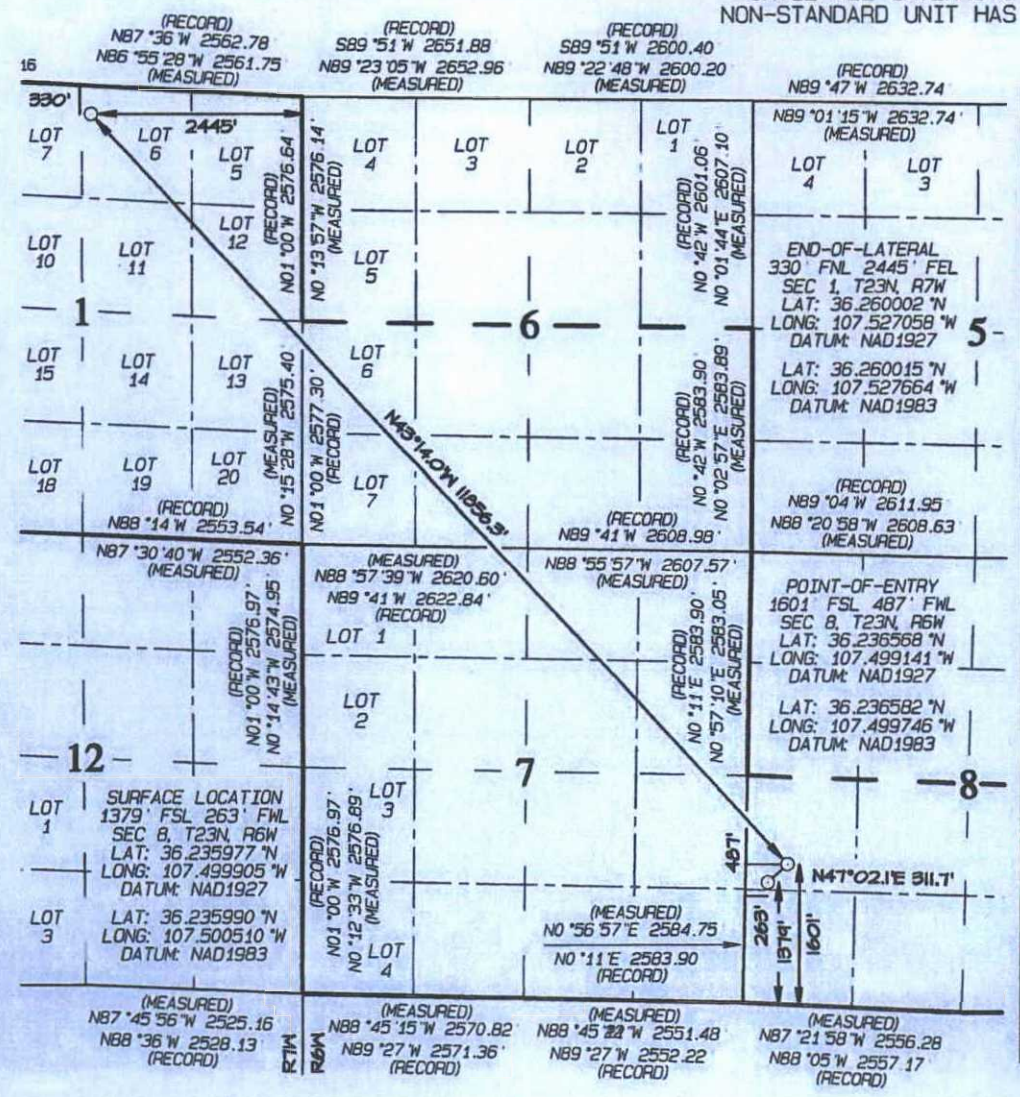
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	1	23N	7W	6	330	NORTH	2445	EAST	RIO ARRIBA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
1890.12 Entire Section 1, T23N, R7W Entire Section 7, T23N, R6W S/2 Sections 6 & 8, T23N, R6W			R-13817A

9237.3 Total acres

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVEBEEN 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: [signature] Date: 12/16/15

LACEY GRANILLO

Printed Name

LACEY.GRANILLO@WPXENERGY.COM

E-mail Address

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: DECEMBER 14, 2015
Survey Date: OCTOBER 9, 2015

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED 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:	**December 15, 2015**	**Field:**	**Chaco Unit NE HZ (Oil)**
Well Name:	**NE Chaco COM #933H**	**Surface:**	**BLM**
SH Location:	**NWSW Sec 8-23N-06W**	**Elevation:**	**6832' GR**
BH Location:	**NWNE Sec 1-23N-07W**	**Minerals:**	**FED**

Measured Depth: **17,605.80'**

I. **GEOLOGY:** Surface Location - San Jose

A. FORMATION TOPS (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	1343	1335	POINT LOOKOUT	4272	4207
KIRTLAND	1660	1646	MANCOS	4495	4426
PICTURED CLIFFS	1956	1936	GALLUP	4902	4826
LEWIS	2071	2049	KICKOFF POINT	5,359.61	5,171.71
CHACRA	2402	2374	TOP TARGET	8260	5294
CLIFF HOUSE	3503	3453	LANDING POINT	5,751.16	5,287.00
MENEFEE	3547	3496	BASE TARGET	5,751.16	5,287.00
			TD	17,605.80	5,320.00

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 ¾" 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"	5,751.16'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5601.16' - 17,605.80'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5601.16'	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. **Place DV tool @ 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.**

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. 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 STAGE 1: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 124 bbls, 353 sks, (695 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 76 bbls, 329 sks, (428 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 226 bbl Drilling mud or water.
Total Cement: 200 bbls, 682 sks, (1123 cuft)
STAGE 2: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 58 bbls, 167 sks, (325 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 16 bbls, 78 sks, (90 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 91 bbl Drilling mud or water.
Total Cement: 74 bbls, 245 sks, (415 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 (1177 sx /1600 cuft /285 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (1177 sx /1600bbls).

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.

NOTE:

Proposed Operations:

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 R6W
Chaco 2306-08L
NE Chaco COM 933H - Slot A7

Wellbore #1

Plan: Design #1 1Dec15 sam

Standard Planning Report

01 December, 2015

WPX

Planning Report

Database:	COMPASS	**Local Co-ordinate Reference:**	Well NE Chaco COM 933H (A7) - Slot A7
Company:	WPX Energy	**TVD Reference:**	KB @ 6857.00usft (Aztec 1000)
Project:	T23N R6W	**MD Reference:**	KB @ 6857.00usft (Aztec 1000)
Site:	Chaco 2306-08L	**North Reference:**	True
Well:	NE Chaco COM 933H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 1Dec15 sam		

Project	T23N R6W		
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	Chaco 2306-08L				
Site Position:		**Northing:**	1,905,402.76 usft	**Latitude:**	36.236242
From:	Lat/Long	**Easting:**	598,278.64 usft	**Longitude:**	-107.500084
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.20 °

Well	NE Chaco COM 933H - Slot A7					
Well Position	**+N/-S**	-96.50 usft	**Northing:**	1,905,306.44 usft	**Latitude:**	36.235977
	+E/-W	52.92 usft	**Easting:**	598,331.89 usft	**Longitude:**	-107.499905
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,832.00 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	11/23/2015	9.18	62.97	50,039

Design	Design #1 1Dec15 sam				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (bearing)**	
	0.00	0.00	0.00	317.53	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
575.00	0.00	0.00	575.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,142.05	11.34	114.03	1,138.36	-22.78	51.09	2.00	2.00	0.00	114.03	
4,575.54	11.34	114.03	4,504.80	-297.77	667.74	0.00	0.00	0.00	0.00	
5,359.61	60.00	316.38	5,171.71	-51.45	479.50	9.00	6.21	-20.11	-159.57	Start 60 tan #933H
5,419.61	60.00	316.38	5,201.71	-13.84	443.65	0.00	0.00	0.00	0.00	End 60 tan #933H
5,520.55	69.09	316.64	5,245.05	52.22	380.99	9.00	9.00	0.26	1.54	
5,751.16	89.84	316.03	5,287.00	215.30	225.27	9.00	9.00	-0.26	-1.72	POE #933H
17,605.80	89.84	316.03	5,320.00	8,746.73	-8,005.52	0.00	0.00	0.00	0.00	BHL #933H

WPX

Planning Report

Database:	COMPASS	**Local Co-ordinate Reference:**	Well NE Chaco COM 933H (A7) - Slot A7
Company:	WPX Energy	**TVD Reference:**	KB @ 6857.00usft (Aztec 1000)
Project:	T23N R6W	**MD Reference:**	KB @ 6857.00usft (Aztec 1000)
Site:	Chaco 2306-08L	**North Reference:**	True
Well:	NE Chaco COM 933H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 1Dec15 sam		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
575.00	0.00	0.00	575.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	8.50	114.03	998.44	-12.82	28.74	-28.86	2.00	2.00	0.00
1,142.05	11.34	114.03	1,138.36	-22.78	51.09	-51.30	2.00	2.00	0.00
Hold 11.34 Inclination									
1,500.00	11.34	114.03	1,489.32	-51.45	115.38	-115.85	0.00	0.00	0.00
2,000.00	11.34	114.03	1,979.55	-91.50	205.18	-206.02	0.00	0.00	0.00
2,500.00	11.34	114.03	2,469.79	-131.54	294.98	-296.19	0.00	0.00	0.00
3,000.00	11.34	114.03	2,960.03	-171.59	384.78	-386.36	0.00	0.00	0.00
3,500.00	11.34	114.03	3,450.26	-211.63	474.58	-476.53	0.00	0.00	0.00
4,000.00	11.34	114.03	3,940.50	-251.68	564.38	-566.70	0.00	0.00	0.00
4,500.00	11.34	114.03	4,430.74	-291.72	654.18	-656.87	0.00	0.00	0.00
4,575.54	11.34	114.03	4,504.80	-297.77	667.74	-670.49	0.00	0.00	0.00
Start Build DLS 9.00 TFO -159.57									
5,000.00	27.81	321.59	4,915.94	-234.82	643.43	-607.64	9.00	3.88	-35.91
5,359.61	60.00	316.38	5,171.71	-51.45	479.50	-361.69	9.00	8.95	-1.45
Hold 60.00 Inclination									
5,419.61	60.00	316.38	5,201.71	-13.84	443.65	-309.74	0.00	0.00	0.00
Start Build DLS 9.00 TFO 1.54									
5,500.00	67.24	316.59	5,237.41	38.36	394.10	-237.78	9.00	9.00	0.26
5,520.55	69.09	316.64	5,245.05	52.22	380.99	-218.71	9.00	9.00	0.24
Start DLS 9.00 TFO -1.72									
5,751.00	89.83	316.03	5,286.99	215.18	225.38	6.56	9.00	9.00	-0.26
7"									
5,751.16	89.84	316.03	5,286.99	215.30	225.27	6.73	9.00	9.00	-0.25
POE at 89.84 Inc 316.03 Deg									
6,000.00	89.84	316.03	5,287.69	394.38	52.50	255.47	0.00	0.00	0.00
6,500.00	89.84	316.03	5,289.08	754.21	-294.65	755.30	0.00	0.00	0.00
7,000.00	89.84	316.03	5,290.48	1,114.05	-641.81	1,255.12	0.00	0.00	0.00
7,500.00	89.84	316.03	5,291.87	1,473.88	-988.96	1,754.95	0.00	0.00	0.00
8,000.00	89.84	316.03	5,293.26	1,833.72	-1,336.12	2,254.78	0.00	0.00	0.00
8,500.00	89.84	316.03	5,294.65	2,193.55	-1,683.27	2,754.60	0.00	0.00	0.00
9,000.00	89.84	316.03	5,296.04	2,553.39	-2,030.43	3,254.43	0.00	0.00	0.00
9,500.00	89.84	316.03	5,297.44	2,913.23	-2,377.58	3,754.25	0.00	0.00	0.00
10,000.00	89.84	316.03	5,298.83	3,273.06	-2,724.74	4,254.08	0.00	0.00	0.00
10,500.00	89.84	316.03	5,300.22	3,632.90	-3,071.89	4,753.90	0.00	0.00	0.00
11,000.00	89.84	316.03	5,301.61	3,992.73	-3,419.05	5,253.73	0.00	0.00	0.00
11,500.00	89.84	316.03	5,303.00	4,352.57	-3,766.20	5,753.55	0.00	0.00	0.00
12,000.00	89.84	316.03	5,304.40	4,712.40	-4,113.36	6,253.38	0.00	0.00	0.00
12,500.00	89.84	316.03	5,305.79	5,072.24	-4,460.51	6,753.20	0.00	0.00	0.00
13,000.00	89.84	316.03	5,307.18	5,432.07	-4,807.67	7,253.03	0.00	0.00	0.00
13,500.00	89.84	316.03	5,308.57	5,791.91	-5,154.82	7,752.85	0.00	0.00	0.00
14,000.00	89.84	316.03	5,309.96	6,151.74	-5,501.98	8,252.68	0.00	0.00	0.00
14,500.00	89.84	316.03	5,311.35	6,511.58	-5,849.13	8,752.51	0.00	0.00	0.00
15,000.00	89.84	316.03	5,312.75	6,871.42	-6,196.29	9,252.33	0.00	0.00	0.00
15,500.00	89.84	316.03	5,314.14	7,231.25	-6,543.44	9,752.16	0.00	0.00	0.00
16,000.00	89.84	316.03	5,315.53	7,591.09	-6,890.60	10,251.98	0.00	0.00	0.00
16,500.00	89.84	316.03	5,316.92	7,950.92	-7,237.75	10,751.81	0.00	0.00	0.00
17,000.00	89.84	316.03	5,318.31	8,310.76	-7,584.91	11,251.63	0.00	0.00	0.00

WPX
Planning Report

Database:	COMPASS	**Local Co-ordinate Reference:**	Well NE Chaco COM 933H (A7) - Slot A7
Company:	WPX Energy	**TVD Reference:**	KB @ 6857.00usft (Aztec 1000)
Project:	T23N R6W	**MD Reference:**	KB @ 6857.00usft (Aztec 1000)
Site:	Chaco 2306-08L	**North Reference:**	True
Well:	NE Chaco COM 933H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 1Dec15 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)
17,500.00	89.84	316.03	5,319.71	8,670.59	-7,932.06	11,751.46	0.00	0.00	0.00
17,605.80	89.84	316.03	5,320.00	8,746.73	-8,005.52	11,857.22	0.00	0.00	0.00
TD at 17580.80									

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 #933H - plan hits target center - Point	0.00	0.00	5,171.71	-51.45	479.50	1,905,256.64	598,811.57	36.235836	-107.498279
End 60 tan #933H - plan hits target center - Point	0.00	0.00	5,201.71	-13.83	443.65	1,905,294.14	598,775.59	36.235939	-107.498400
POE #933H - plan misses target center by 0.01usft at 5751.16usft MD (5286.99 TVD, 215.30 N, 225.27 E) - Point	0.00	0.00	5,287.00	215.30	225.27	1,905,522.51	598,556.42	36.236568	-107.499141
BHL #933H - plan hits target center - Point	0.00	0.00	5,320.00	8,746.73	-8,005.52	1,914,025.58	590,296.33	36.260002	-107.527058

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
320.00	320.00	9 5/8"	9.625	13.500
5,751.00	5,286.99	7"	7.000	8.750

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
575.00	575.00	0.00	0.00	Start Build 2.00
1,142.05	1,138.36	-22.78	51.09	Hold 11.34 Inclination
4,575.54	4,504.80	-297.77	667.74	Start Build DLS 9.00 TFO -159.57
5,359.61	5,171.71	-51.45	479.50	Hold 60.00 Inclination
5,419.61	5,201.71	-13.84	443.65	Start Build DLS 9.00 TFO 1.54
5,520.55	5,245.05	52.22	380.99	Start DLS 9.00 TFO -1.72
5,751.16	5,286.99	215.30	225.27	POE at 89.84 Inc 316.03 Deg
17,605.80	5,320.00	8,746.73	-8,005.52	TD at 17580.80

3. Within 90 days of installation, production facilities would be painted Juniper Green to blend with the natural color of the landscape and would be located, to the extent practical, to reasonably minimize visual impact.
4. Existing and any additional berms around all storage facilities will be maintained to contain the storage capacity of tanks. Berm walls are compacted with appropriate equipment to assure containment.

E. Cathodic Protection
   1. To install an additional anode bed a vertical bore is drilled and casing of the specified size and amount is set. Casing is a minimum of 20 feet in length. Upon encountering ground water, drilling shall cease and depth to ground water (DTGW) recorded using a conductive tape technique (Wellsounder) before commencing to the desired bore depth. This information is recorded on the supplied groundwater depth log form. The bore will be completed to a desired vertical bore depth of approximately 300 feet. Given a 240 foot anode length and varying lengths of surface casing, the overall bore shall be allowed to vary by no more than ±60 feet from the standard 300 feet. Once the bore is completed and cased, the anode is installed in accordance with the manufacturer's specifications. The bore is then backfilled with Conducrete using a tremie tube technique starting from TD of the bore. The casing will be cut and capped 12 inches below the surface. The specified flush grade valve box is then installed directly over the bed. The bed location (Lat/Long) is recorded and full drill log report is completed and filed with WPX. The bed will not be energized for a minimum of 45 days.

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

7.0 Methods for Handling Waste

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

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

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

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

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

in Bloomfield, NM to WPX Energy Production, LLC NE Chaco Com #933H

1379' FSL & 263' FWL, Section 8, T23N, R6W, N.M.P.M., Rio Arriba County, NM

Latitude: 36.235990°N Longitude: 107.500510°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 50.2 miles to Mile Marker 101.0;

Go Left (Northerly) on existing roadway for 0.3 miles to fork in roadway;

Go Right (South-easterly) for 0.1 miles to fork in roadway;

Go Left (North-easterly) which is straight for 0.6 miles to existing NE Chaco Com #199H well approach on left-hand side, which continues to staked WPX NE Chaco Com #933H location which overlaps existing WPX NE Chaco Com #199H wellpad.

3000 PSI BOP Schematic