State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, 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: 7-16-14
Well information;
Operator WPX, Well Name and Number Chaco 2306 16D # 176H
API# 30-039-31251, Section 16, Township 23 (N)S, Range 6 E(W)

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

- ✓ Notify Aztec OCD 24hrs prior to casing & cement.
- ✓ Hold C-104 for directional survey & "As Drilled" Plat
- ✓ Hold C-104 for (NSL) NSP, DHC Depending on perforation placement on heel and toe
- 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
- ✓ 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.

Charlie Perrin
NMOCD Approved by Signature

8-18-2014
Date

CONFIDENTIAL

Form 3160-3
(September 2001)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
JUL 16 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMSF-078362

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
NMNM 132829(CA)

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

8. Lease Name and Well No.
Chaco 2306-06D #176H

2. Name of Operator
WPX Energy Production, LLC

9. API Well No.
30-039-31251

3a. Address
P.O. Box 640 Aztec, NM 87410

3b. Phone No. *(include area code)*
(505) 333-1808

10. Field and Pool, or Exploratory
Lybrook Gallup

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*
At surface D 1120' FNL & 736' FWL, sec 6, T23N, R6W
At proposed prod. zone D 340' FNL & 230' FWL, sec 1, T23N, R7W

OIL CONS. DIV DIST. 3

11. Sec., T., R., M., or Blk. and Survey or Area
Sur: Sec 6, T23N, R6W
BHL: Sec 1, T23N, R7W

14. Distance in miles and direction from nearest town or post office*
approximately 2 miles northeast of Lybrook, New Mexico

AUG 05 2014

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)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
736'	2530.37	152.34 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
22'	10,916' MD / 5,614' TVD	UTB000178
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
6982' GR	October 1, 2014	1 month

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)*	Date
Larry Higgins	Larry Higgins	7/16/14

Title
Regulatory Specialist

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Maureen Gannon AFM		8/4/14
Title	**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 Lybrook Gallup formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is on lease under jurisdiction of the BLM.

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

This well shares this location with the Chaco 2307-06D #177H . A 179' access road is needed. A 449' pipeline connection is required.

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

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

NMOCD

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

APD Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 16th day of July, 2014.

Name Larry Higgins

Position Title Regulatory Specialist

Address P.O. Box 640, Aztec, NM 87410

Telephone (505) 333-1808

Field representative (if not above signatory) _____

E-mail larry.higgins@wpxenergy.com

Date: 07/16/14

Larry Higgins
Regulatory Spec.
WPX Energy Production, LLC

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

JUL 16 2014

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-31251	42289	LYBROOK GALLUP

[4] Property Code	[5] Property Name	[6] Well Number
313590	CHACO 2306-06D	176H

[7] OGRID No.	[8] Operator Name	[9] Elevation
120782	WPX ENERGY PRODUCTION, LLC	6982'

[10] Surface Location

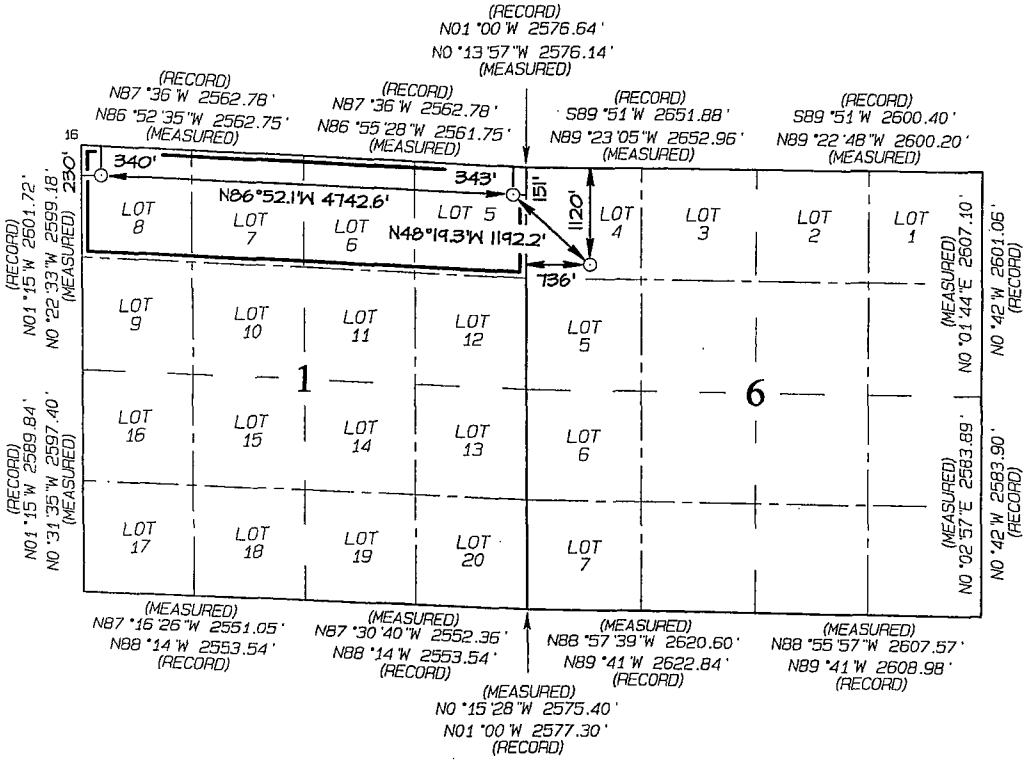
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	6	23N	6W	4	1120	NORTH	736	WEST	RIO ARRIBA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	280	East/West line	County
D	1	23N	7W	8	340	NORTH	230	WEST	RIO ARRIBA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
152.34 Acres N/2 N/2 - Section 1			

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



END-OF-LATERAL
340' FNL 230' FWL
SECTION 1, T23N, R7W
LAT: 36.26025 °N
LONG: 107.53534 °W
DATUM: NAD1927

LAT: 36.26026 °N
LONG: 107.53595 °W
DATUM: NAD1983

POINT-OF-ENTRY
343' FNL 151' FEL
SECTION 1, T23N, R7W
LAT: 36.25971 °N
LONG: 107.51927 °W
DATUM: NAD1927

LAT: 36.25972 °N
LONG: 107.51988 °W
DATUM: NAD1983

SURFACE LOCATION
1120' FNL 736' FWL
SECTION 6, T23N, R6W
LAT: 36.25756 °N
LONG: 107.51622 °W
DATUM: NAD1927

LAT: 36.25758 °N
LONG: 107.51682 °W
DATUM: NAD1983

[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 7/16/14 Date

Larry Higgins
Printed Name

larry.higgins@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: JULY 14, 2014
Survey Date: SEPTEMBER 19, 2013

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 on site based upon actual conditions)

DATE:	7/10/2014	**FIELD:**	Lybrook (Gallup)
WELL NAME:	**Chaco 2306-06D #176H**	**SURFACE:**	BLM
SH Location:	NWNW Sec 6 -23N -06W	**ELEVATION:**	6982' GR
BH Location:	NWNW Sec 1 -23N -07W Rio Arriba Co, NM	**MINERALS:**	BLM
MEASURED DEPTH:	**10,916'**	**LEASE #:**	NMSF 078362

I. **GEOLOGY:** Surface formation – San Jose

A. **FORMATION TOPS:** (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1585	1572	Point Lookout	4459	4391
Kirtland	1846	1828	Mancos	4692	4620
Picture Cliffs	2158	2134	**Kickoff Point**	**5103**	5029
Lewis	2264	2238	Top Target	5840	5615
Chacra	2598	2566	**Landing Point**	**6174**	5696
Cliff House	3731	3677	Base Target	6165	5695
Menefee	3766	3711			
			TD	10916	5614

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.**

NOTE: Vertical portion of the well (8-3/4 in.) will be directionally drilled as per attached Directional Plan to +/- 5103 (MD) / 5029' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,174' (MD) / 5,696' (TVD). 7 in. csg will be set at this point. A 6-1/8" Lateral will be drilled as per the attached Directional Plan to +/- 10,916' (MD) / 5,614' (TVD). Will run 4-1/2 in. Production Liner from +/- 6,024 ft. to TD and cemented. Liner will be tied back to surface w / 4-1/2" Casing for stimulation / testing, then removed from the well.

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	12.25"	400'+	9.625"	36#	J-55
Intermediate	8.75"	6,174'	7"	23#	K-55
Prod. Liner	6.125"	6,024' - 10,916'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 6,024'	4-1/2"	11.6#	N-80

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 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.

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 + (2) RSI (Sliding Sleeves) 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.

4. TIE-BACK CASING: None

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. SURFACE: 10 bbl Fr Water Spacer + 190 sx (222.3 cu.ft.) of "Premium Cement" + 2% Calcium Chloride Cement + 0.125# pps of Poly-E-Flake, 15.8 #/gal (1.17 cu ft./sk, Vol 39.58 Bbls.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 600psi. Total Volume: (222.3 cu-ft/190 sx/39.6 Bbls). TOC at Surface.

2. INTERMEDIATE: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: 850 sx Foamed 50/50 Poz Cement. 13.0 ppg + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft / 216.5 Bbls.) + TAIL: 100 sx 13.5 #/gal. + 0.2% Versaset + 0.15% HALAD-766 (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft / 22.8 Bbls.). + Fresh Water Displacement (1,362 cu-ft / +/- 242 Bbls) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk / (Vol: 117 cu-ft / 20.8 Bbls). Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (1050 sx / 1461 cu-ft / 260 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.

3. PRODUCTION LINER: **STAGE 1**:10 bbl (56.cu-ft) Fr Water Spacer. **STAGE 2**:40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III + 0.5 gal/bbl Musol + 38.75 ppb Barite + 0.5 gal/bbl SEM-7. **STAGE 3**: 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement:** 50 / 50 Poz Premium + 0.2% Versaset + 0.2% Halad -766, Yield 1.43 cu ft/sk, 13.0 ppg, (10 sx / 14.3 cu ft. / 2.5 bbls). **STAGE 5:** 200 sx. Foamed Lead Cement: 50 / 50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.97 cu-ft/sk. 13.0 ppg (200 sx / 394 cu-ft. / 70.2 bbls.). **STAGE 6**: Tail Cement : 100 sx. 50/50 Poz Standard + 0.2% Versaset + 0.05% HALAD-766 + .05% SA-1015, Weight: 13.5 ppg (100 sx / Yield 1.28 cu ft/sk. / 128 cu ft. / 22.8 bbls) **STAGE 7**: Displace w/ +/- 137 bbl Fr Water. Total Cement (536.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,724 ft.

IV. COMPLETION

A. CBL

1. Run CCL for perforating.

B. 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.

C. 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.

D. 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 point of curve (~5,800' MD).

- 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:

Installation of RSI sleeves at Toe of Lateral.

Proposed Operations:

A 4-1/2" 11.6# N-80 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# K-55 Intermediate casing (set at 6,174 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 6,024 ft. (MD) +/- 78 degree angle. TOC: +/- 5,724 ft. (MD).

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

A 4-1/2" 11.6# N-80 tie-back string with seal assembly will be run and stung into the PBR of the liner hanger, tested to 1500 PSI and hung off at the surface.

The Drilling Rig will be rigged down at this point and Completion operations will begin. After Stimulation and Testing operations are complete the 4-1/2" tie-back string will be removed from the well.

Note: Changes to formation tops, casing landing points, well TD and Directional Plan.

WPXENERGY

Well Name: Chaco 2306-06D #176H
Surface Location: Chaco 2306-06D
NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico Central 3002
Ground Elevation: 6982.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1915401.88	126677.83	36.25756	-107.51622	

WELL @ 6996.00usft (Original Well Elev)

T M

Azimuths to True North
Magnetic North: 9.36°

Magnetic Field
Strength: 50183.6snT
Dip Angle: 63.02°
Date: 7/8/2014
Model: IGRF2010

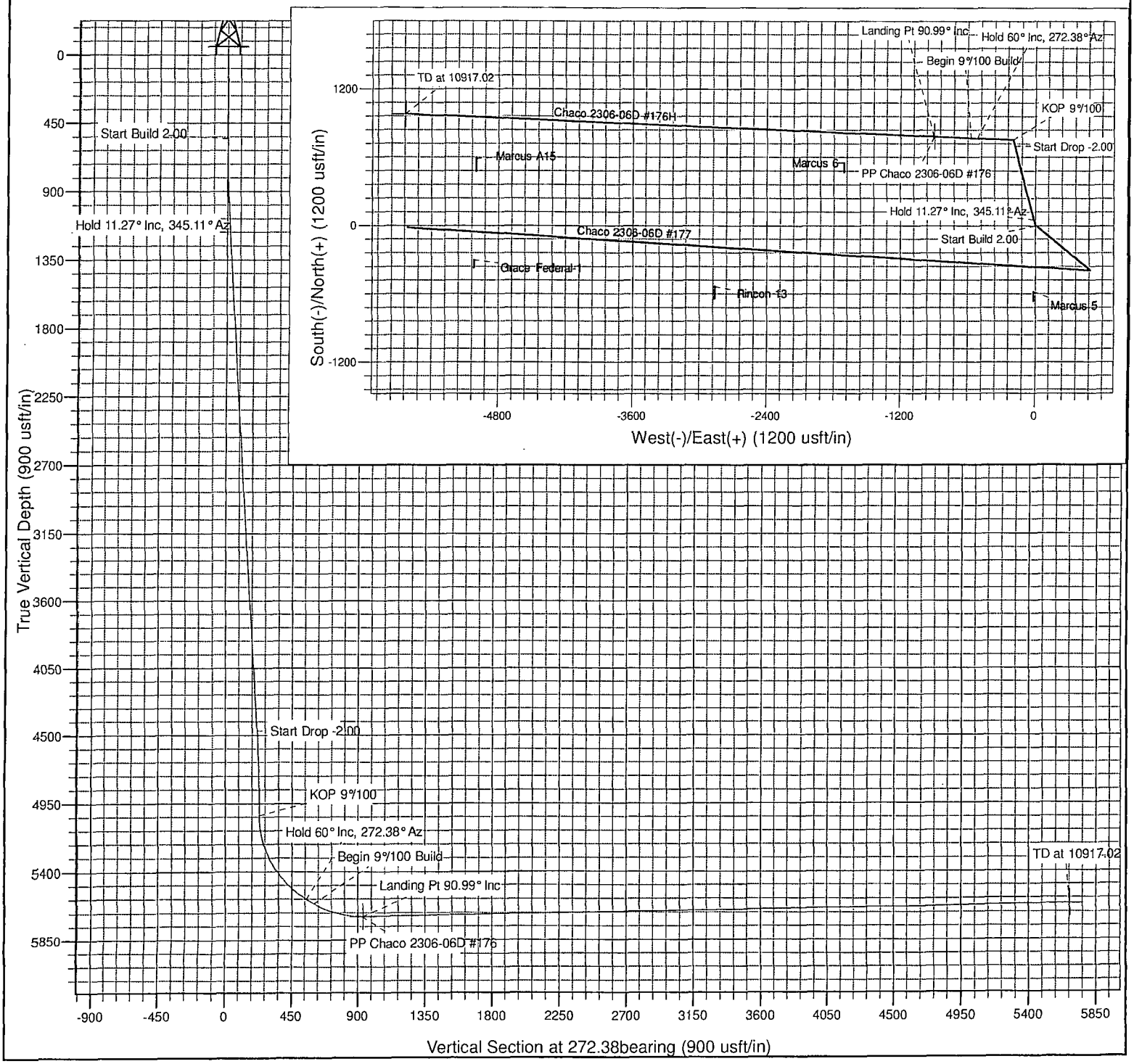
Project: SJ 06-23N-06W
Site: Chaco 2306-06D
Well: Chaco 2306-06D #176H
Design #1 08Jul14 kjs

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
550.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1109.76	1113.39	11.27	345.11	53.37	-14.19	16.39	55.22	Hold 11.27° Inc, 345.11° Az
4469.72	4539.38	11.27	345.11	700.31	-186.16	215.09	724.64	Start Drop -2.00
5029.48	5102.77	0.00	0.00	753.68	-200.35	231.48	779.85	KOP 9°/100
5580.81	5769.43	60.00	272.38	766.91	-518.38	549.79	1098.16	Hold 60° Inc, 272.38° Az
5610.81	5829.43	60.00	272.38	769.07	-570.30	601.75	1150.13	Begin 9°/100 Build
5696.00	6173.77	90.99	272.38	782.76	-899.33	931.06	1479.44	Landing Pt 90.99° Inc
5614.02	10916.02	90.99	272.38	979.85	-5636.77	5672.60	6220.98	TD at 10917.02

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TD / PBHL Chaco 2306-06D #176	5614.00	979.89	-5637.77	1916455.39	121053.35	36.26025	-107.53534	Point
- plan hits target center								
PP Chaco 2306-06D #176	5696.00	782.76	-899.33	1916196.33	125788.80	36.25971	-107.51927	Point
- plan misses target center by 0.01usft at 6173.77usft MD (5696.00 TVD, 782.76 N, -899.33 E)								



WPXENERGY SM

SAN JUAN BASIN

SJ 06-23N-06W
Chaco 2306-06D
Chaco 2306-06D #176H

Wellbore #1

Plan: Design #1 08Jul14 kjs

Standard Planning Report - Geographic

09 July, 2014

Database:	COMPASS-PICEANCE	**Local Co-ordinate Reference:**	Well Chaco 2306-06D #176H
Company:	SAN JUAN BASIN	**TVD Reference:**	WELL @ 6996.00usft (Original Well Elev)
Project:	SJ 06-23N-06W	**MD Reference:**	WELL @ 6996.00usft (Original Well Elev)
Site:	Chaco 2306-06D	**North Reference:**	True
Well:	Chaco 2306-06D #176H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Jul14 kjs		

Project	SJ 06-23N-06W, Rio Arriba County, NM		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site	Chaco 2306-06D				
Site Position:		**Northing:**	1,915,401.88 usft	**Latitude:**	36.25756
From:	Lat/Long	**Easting:**	126,677.83 usft	**Longitude:**	-107.51622
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-0.75 °

Well	Chaco 2306-06D #176H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	1,915,401.88 usft	**Latitude:**	36.25756
	+E/-W	0.00 usft	**Easting:**	126,677.83 usft	**Longitude:**	-107.51622
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,982.00 usft

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	7/8/2014	9.36	63.02	50,184

Design	Design #1 08Jul14 kjs				
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	272.38	

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	
550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,113.39	11.27	345.11	1,109.76	53.37	-14.19	2.00	2.00	0.00	345.11	
4,539.38	11.27	345.11	4,469.72	700.31	-186.16	0.00	0.00	0.00	0.00	
5,102.77	0.00	0.00	5,029.48	753.68	-200.35	2.00	-2.00	0.00	180.00	
5,769.43	60.00	272.38	5,580.81	766.91	-518.38	9.00	9.00	0.00	272.38	
5,829.43	60.00	272.38	5,610.81	769.07	-570.30	0.00	0.00	0.00	0.00	
6,173.77	90.99	272.38	5,696.00	782.76	-899.33	9.00	9.00	0.00	0.00	
10,917.02	90.99	272.38	5,614.00	979.89	-5,637.77	0.00	0.00	0.00	0.00	TD / PBHL Chaco 23(

Database:	COMPASS-PICEANCE	**Local Co-ordinate Reference:**	Well Chaco 2306-06D #176H
Company:	SAN JUAN BASIN	**TVD Reference:**	WELL @ 6996.00usft (Original Well Elev)
Project:	SJ 06-23N-06W	**MD Reference:**	WELL @ 6996.00usft (Original Well Elev)
Site:	Chaco 2306-06D	**North Reference:**	True
Well:	Chaco 2306-06D #176H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Jul14 kjs		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,915,401.88	126,677.83	36.25756	-107.51622
200.00	0.00	0.00	200.00	0.00	0.00	1,915,401.88	126,677.83	36.25756	-107.51622
400.00	0.00	0.00	400.00	0.00	0.00	1,915,401.88	126,677.83	36.25756	-107.51622
550.00	0.00	0.00	550.00	0.00	0.00	1,915,401.88	126,677.83	36.25756	-107.51622
Start Build 2.00									
600.00	1.00	345.11	600.00	0.42	-0.11	1,915,402.31	126,677.72	36.25756	-107.51622
800.00	5.00	345.11	799.68	10.54	-2.80	1,915,412.45	126,675.17	36.25759	-107.51623
1,000.00	9.00	345.11	998.15	34.09	-9.06	1,915,436.08	126,669.21	36.25765	-107.51625
1,113.39	11.27	345.11	1,109.76	53.37	-14.19	1,915,455.43	126,664.34	36.25771	-107.51627
Hold 11.27° Inc, 345.11° Az									
1,200.00	11.27	345.11	1,194.71	69.72	-18.53	1,915,471.84	126,660.21	36.25775	-107.51629
1,400.00	11.27	345.11	1,390.85	107.49	-28.57	1,915,509.74	126,650.66	36.25786	-107.51632
1,600.00	11.27	345.11	1,587.00	145.26	-38.61	1,915,547.63	126,641.12	36.25796	-107.51635
1,800.00	11.27	345.11	1,783.14	183.02	-48.65	1,915,585.53	126,631.57	36.25806	-107.51639
2,000.00	11.27	345.11	1,979.29	220.79	-58.69	1,915,623.42	126,622.03	36.25817	-107.51642
2,200.00	11.27	345.11	2,175.43	258.56	-68.73	1,915,661.32	126,612.48	36.25827	-107.51646
2,400.00	11.27	345.11	2,371.58	296.32	-78.77	1,915,699.21	126,602.94	36.25837	-107.51649
2,600.00	11.27	345.11	2,567.72	334.09	-88.81	1,915,737.11	126,593.39	36.25848	-107.51652
2,800.00	11.27	345.11	2,763.87	371.86	-98.85	1,915,775.00	126,583.85	36.25858	-107.51656
3,000.00	11.27	345.11	2,960.01	409.63	-108.89	1,915,812.90	126,574.30	36.25869	-107.51659
3,200.00	11.27	345.11	3,156.16	447.39	-118.93	1,915,850.79	126,564.76	36.25879	-107.51663
3,400.00	11.27	345.11	3,352.30	485.16	-128.97	1,915,888.69	126,555.21	36.25889	-107.51666
3,600.00	11.27	345.11	3,548.45	522.93	-139.01	1,915,926.58	126,545.67	36.25900	-107.51669
3,800.00	11.27	345.11	3,744.59	560.69	-149.05	1,915,964.48	126,536.12	36.25910	-107.51673
4,000.00	11.27	345.11	3,940.74	598.46	-159.09	1,916,002.37	126,526.58	36.25920	-107.51676
4,200.00	11.27	345.11	4,136.88	636.23	-169.13	1,916,040.27	126,517.03	36.25931	-107.51680
4,400.00	11.27	345.11	4,333.03	673.99	-179.17	1,916,078.16	126,507.49	36.25941	-107.51683
4,539.38	11.27	345.11	4,469.72	700.31	-186.16	1,916,104.57	126,500.84	36.25948	-107.51685
Start Drop -2.00									
4,600.00	10.06	345.11	4,529.29	711.15	-189.05	1,916,115.45	126,498.10	36.25951	-107.51686
4,800.00	6.06	345.11	4,727.28	738.23	-196.24	1,916,142.62	126,491.25	36.25959	-107.51689
5,000.00	2.06	345.11	4,926.74	751.90	-199.88	1,916,156.33	126,487.80	36.25963	-107.51690
5,102.77	0.00	0.00	5,029.48	753.68	-200.35	1,916,158.12	126,487.35	36.25963	-107.51690
KOP 9°/100									
5,200.00	8.75	272.38	5,126.34	753.99	-207.75	1,916,158.52	126,479.95	36.25963	-107.51693
5,400.00	26.75	272.38	5,316.03	756.51	-268.43	1,916,161.84	126,419.31	36.25964	-107.51713
5,600.00	44.75	272.38	5,477.68	761.35	-384.70	1,916,168.20	126,303.11	36.25965	-107.51753
5,769.43	60.00	272.38	5,580.81	766.91	-518.38	1,916,175.50	126,169.51	36.25967	-107.51798
Hold 60° Inc, 272.38° Az									
5,800.00	60.00	272.38	5,596.09	768.01	-544.83	1,916,176.95	126,143.08	36.25967	-107.51807
5,829.43	60.00	272.38	5,610.81	769.07	-570.30	1,916,178.34	126,117.63	36.25967	-107.51816
Begin 9°/100 Build									
6,000.00	75.35	272.38	5,675.41	775.61	-727.48	1,916,186.94	125,960.55	36.25969	-107.51869
6,173.77	90.99	272.38	5,696.00	782.76	-899.33	1,916,196.33	125,788.80	36.25971	-107.51927
Landing Pt 90.99° Inc - PP Chaco 2306-06D #176									
6,200.00	90.99	272.38	5,695.55	783.85	-925.53	1,916,197.76	125,762.62	36.25971	-107.51936
6,400.00	90.99	272.38	5,692.09	792.16	-1,125.33	1,916,208.69	125,562.95	36.25974	-107.52004
6,600.00	90.99	272.38	5,688.64	800.48	-1,325.13	1,916,219.61	125,363.28	36.25976	-107.52072
6,800.00	90.99	272.38	5,685.18	808.79	-1,524.93	1,916,230.53	125,163.61	36.25978	-107.52139
7,000.00	90.99	272.38	5,681.72	817.10	-1,724.72	1,916,241.46	124,963.93	36.25981	-107.52207
7,200.00	90.99	272.38	5,678.26	825.41	-1,924.52	1,916,252.38	124,764.26	36.25983	-107.52275
7,400.00	90.99	272.38	5,674.80	833.72	-2,124.32	1,916,263.30	124,564.59	36.25985	-107.52343
7,600.00	90.99	272.38	5,671.35	842.04	-2,324.12	1,916,274.23	124,364.92	36.25987	-107.52410
7,800.00	90.99	272.38	5,667.89	850.35	-2,523.91	1,916,285.15	124,165.25	36.25990	-107.52478

Database:	COMPASS-PICEANCE	**Local Co-ordinate Reference:**	Well Chaco 2306-06D #176H
Company:	SAN JUAN BASIN	**TVD Reference:**	WELL @ 6996.00usft (Original Well Elev)
Project:	SJ 06-23N-06W	**MD Reference:**	WELL @ 6996.00usft (Original Well Elev)
Site:	Chaco 2306-06D	**North Reference:**	True
Well:	Chaco 2306-06D #176H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Jul14 kjs		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,000.00	90.99	272.38	5,664.43	858.66	-2,723.71	1,916,296.07	123,965.58	36.25992	-107.52546
8,200.00	90.99	272.38	5,660.97	866.97	-2,923.51	1,916,307.00	123,765.90	36.25994	-107.52614
8,400.00	90.99	272.38	5,657.52	875.28	-3,123.30	1,916,317.92	123,566.23	36.25996	-107.52682
8,600.00	90.99	272.38	5,654.06	883.60	-3,323.10	1,916,328.84	123,366.56	36.25999	-107.52749
8,800.00	90.99	272.38	5,650.60	891.91	-3,522.90	1,916,339.77	123,166.89	36.26001	-107.52817
9,000.00	90.99	272.38	5,647.14	900.22	-3,722.70	1,916,350.69	122,967.22	36.26003	-107.52885
9,200.00	90.99	272.38	5,643.69	908.53	-3,922.49	1,916,361.61	122,767.55	36.26006	-107.52953
9,400.00	90.99	272.38	5,640.23	916.85	-4,122.29	1,916,372.54	122,567.88	36.26008	-107.53020
9,600.00	90.99	272.38	5,636.77	925.16	-4,322.09	1,916,383.46	122,368.20	36.26010	-107.53088
9,800.00	90.99	272.38	5,633.31	933.47	-4,521.89	1,916,394.38	122,168.53	36.26012	-107.53156
10,000.00	90.99	272.38	5,629.85	941.78	-4,721.68	1,916,405.31	121,968.86	36.26015	-107.53224
10,200.00	90.99	272.38	5,626.40	950.09	-4,921.48	1,916,416.23	121,769.19	36.26017	-107.53291
10,400.00	90.99	272.38	5,622.94	958.41	-5,121.28	1,916,427.15	121,569.52	36.26019	-107.53359
10,600.00	90.99	272.38	5,619.48	966.72	-5,321.07	1,916,438.08	121,369.85	36.26021	-107.53427
10,800.00	90.99	272.38	5,616.02	975.03	-5,520.87	1,916,449.00	121,170.17	36.26024	-107.53495
10,917.02	90.99	272.38	5,614.00	979.89	-5,637.77	1,916,455.39	121,053.35	36.26025	-107.53534
TD at 10917.02 - TD / PBHL Chaco 2306-06D #176									

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
TD / PBHL Chaco 2306-	0.00	0.00	5,614.00	979.89	-5,637.77	1,916,455.39	121,053.35	36.26025	-107.53534
- plan hits target center - Point									
PP Chaco 2306-06D #1	0.00	0.00	5,696.00	782.76	-899.33	1,916,196.33	125,788.80	36.25971	-107.51927
- plan misses target center by 0.01usft at 6173.77usft MD (5696.00 TVD, 782.76 N, -899.33 E) - Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
550.00	550.00	0.00	0.00	Start Build 2.00
1,113.39	1,109.76	53.37	-14.19	Hold 11.27° Inc, 345.11° Az
4,539.38	4,469.72	700.31	-186.16	Start Drop -2.00
5,102.77	5,029.48	753.68	-200.35	KOP 9°/100
5,769.43	5,580.81	766.91	-518.38	Hold 60° Inc, 272.38° Az
5,829.43	5,610.81	769.07	-570.30	Begin 9°/100 Build
6,173.77	5,696.00	782.76	-899.33	Landing Pt 90.99° Inc
10,917.02	5,614.00	979.89	-5,637.77	TD at 10917.02

1. INTRODUCTION

WPX Energy Production, LLC (WPX), is providing this Surface Use Plan of Operations (SUPO) to the Bureau of Land Management – Farmington Field Office (BLM-FFO) as part of their Chaco 2306-06D Nos. 176H and 177H (176H/177H) Applications for Permit to Drill (APDs). This SUPO is provided per Onshore Oil and Gas Order No. 1.

The 01H and 02H wells will each be permitted by an approved APD. The associated well pad (including construction zone), access road, and pipeline corridor, all of which are located on-lease, will also be permitted under the approved APDs.

Two staging areas will be associated with the project. Elm Ridge Exploration Company's (Elm Ridge's) inactive Lybrook South No.12 well pad will be authorized as a staging area via an agreement between WPX and Elm Ridge (if a Final Abandonment Notice [FAN] has not been issued for the pad) or under the approved APDs (if a FAN has been issued for the well pad). WPX's active Chaco 2306-19E Nos. 188H, 189H, and 205H (188H/189H/205H) well pad will also be used for staging.

A pre-disturbance onsite meeting for the project was held on February 27, 2014. The BLM, WPX, and an environmental consultant (Nelson Consulting, Inc.) attended the meeting.

In addition to the best management practices (BMPs) provided below and in the Surface Reclamation Plan (Reclamation Plan; Appendix A), the general Conditions of Approval will be followed, if any are attached to the approved APDs.

2. PROJECT LOCATION AND DESCRIPTION

2.1. Project Location

The project area is located in Rio Arriba County, New Mexico. The project area is located approximately 41 miles southeast of the town of Bloomfield, New Mexico. To access the project area, head southward on U.S. Highway 550 from the U.S. Highway 550-U.S. Highway 64 intersection for approximately 49 miles, turn left onto an existing road for approximately 4 miles, turn right onto an existing road for approximately 0.2 mile, and turn left onto an existing road for approximately 0.1 mile. The start of the 176H/177H access road is on the left side of the existing road. The access route from U.S. Highway 550 is depicted on Figure B.1 (Appendix B) and on the construction plats provided in the APD.

The staging areas are located in Sandoval County, approximately 3 miles south of the well pad, access road, and pipeline tie.

The legal locations of the project area and staging areas are listed in the below table (New Mexico Principal Meridian [NMPM]).

Table 1. Legal Location of Project Area

Township, Range	Section	Quarter-Quarter	Project Feature
Township 23 North, Range 6 West	6	southwestern ¼ northwestern ¼	Well Pad & Construction Zone
		northwestern ¼ northwestern ¼	Access Road & Pipeline Corridor
	19	southwestern ¼ northwestern ¼	Staging Areas

The latitude and longitude of the bottom holes and surface holes (wellheads) are provided in the below table.

Pipeline markers will be installed along the pipeline corridor within the line of sight. These markers will not create safety hazards.

Construction and maintenance activities will cease when soil or road surfaces become saturated to the extent that construction equipment is unable to stay within the project area and/or when activities cause irreparable harm to roads, soils, or streams. No frozen soils will be used for construction purposes or trench backfilling.

Construction plats are provided in the APDs.

9. METHODS FOR HANDLING WASTE DISPOSAL

Drilling operations will utilize a closed-loop system. Drilling of the horizontal lateral will be accomplished with water-based mud. All cuttings will be hauled to a commercial disposal facility or land farm. WPX will follow New Mexico Oil Conservation Division "Pit Rule" guidelines and Onshore Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.

If drilling has not been initiated on the well pad within 120 days of the well pad being constructed, the operator will submit a site-stabilization plan to the BLM-FFO.

All garbage and trash will be placed in a metal trash basket. The trash and garbage will be hauled off site and dumped in an approved landfill, as needed. Portable toilets will be provided and maintained during construction, as needed (see Figures B.3 and B.4 [Appendix B] for the location of toilets and trash receptacles).

10. ANCILLARY FACILITIES

Two staging areas will be used; they are described in Section 2.2 (Project Description). During staging, WPX will stay within the boundaries of the previously disturbed well pads associated with the staging areas. During interim reclamation, WPX will repair any damage to and reseed the staging areas (with the exception of portions of the staging areas that the well pad operators prefer to remain unseeded).

11. WELL SITE LAYOUT

The approximate cuts, approximate fills, and orientation for the well pad are depicted on the construction plats in the APDs. Rig orientation and the location of drilling equipment and topsoil or spoil material stockpiles are depicted on Figure B.3 (Appendix B). The layout of the completions rigs is depicted on Figure B.4 (Appendix B). The interim reclamation/long-term disturbance layout is depicted on Figure B.5 (Appendix B) and is described below.

- The following areas (known as the "non-reseed working areas") will remain unreclaimed throughout the lifetime of the project:
    - Production facilities will be located within a 300-by-100-foot (0.7-acre) facility area at the southeastern end of the well pad.
    - The teardrop for the well pad will include a looped, 35-foot-wide driving surface, totaling approximately 0.5 acre.
- The following areas (known as the "reseed working areas") will be reseeded (but not recontoured) during interim reclamation:
    - The center of the teardrop will measure approximately 0.3 acre.

3000 PSI BOP Schematic