

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: 5-22-14

Well information;

Operator WPX, Well Name and Number Chaco 2308-24I #156H

API# 30-045-35548, Section 24, Township 23 N/S, Range 8 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 NSD, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ 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.

Charles P. ...
NMOCD Approved by Signature

9-18-2014
Date

RECEIVED

CONFIDENTIAL

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 23 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM-110324

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

Chaco 2308-241 #156H

9. API Well No.

30-045-35548

10. Field and Pool, or Exploratory

Basin Mancos

11. Sec., T., R., M., or Blk. and Survey or Area

Section 24, T23N, R8W

Section 24, T23N, R8W

12. County or Parish

San Juan County

13. State

NM

1a. Type of Work: ☒ DRILL

☐ REENTER

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

☒ Single Zone ☐ Multiple Zone

2. Name of Operator

WPX Energy Production, LLC

3a. Address

P.O. Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

(505) 333-1808

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 1524' FSL & 233' FEL, sec 24, T23N, R8W

At proposed prod. zone 1201' FSL & 230' FWL, sec 24, T23N, R8W

14. Distance in miles and direction from nearest town or post office*

Approximately 6 miles northwest of Lybrook, New Mexico

15. Distance from proposed*

location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 233'

16. No. of Acres in lease

640

17. Spacing Unit dedicated to this well

640 acres

RCVD SEP 11 '14

18. Distance from proposed location*

to nearest well, drilling, completed,
applied for, on this lease, ft.

22'

19. Proposed Depth

10,549' MD / 4,978' TVD

20. BLM/BIA Bond No. on file

UTB000178

OIL CONS. DIV.

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

6884' GR

22. Approximate date work will start*

July 1, 2014

23. Estimated duration

1 month

DIST. 3

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

Larry Higgins

Name (Printed/Typed)

Larry Higgins

Date

5/22/14

Title
Regulatory Specialist

Approved by (Signature)

D. Mankiewicz
AFM

Name (Printed/Typed)

Office

FFO

Date

5/10/14

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 Basin Mancos Oil formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is on FEE lands. The road and location are on lease.

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

10,436' of new access road is needed.

The surface location and 196' of the access is owned by the W. A. Lybrook heirs. A surface agreement is near completion and a copy will be furnished to BLM. 2261' of the access is owned by Al and Sandra Chapman. A copy of their surface use agreement is attached.

An approximate 23,349' pipeline is needed for this project all of which follows existing disturbance. This has been filed for under a separate ROW application.

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

NMOCDA

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 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

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORTED

MAY 23 2014

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35548		² Pool Code 97232	³ Pool Name BASIN MANCOS	Farmington Field Office Bureau of Land Management
⁴ Property Code 313713	⁵ Property Name CHACO 2308-24I			⁶ Well Number 156H
⁷ GRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC			⁹ Elevation 6884 '

¹⁰ Surface Location

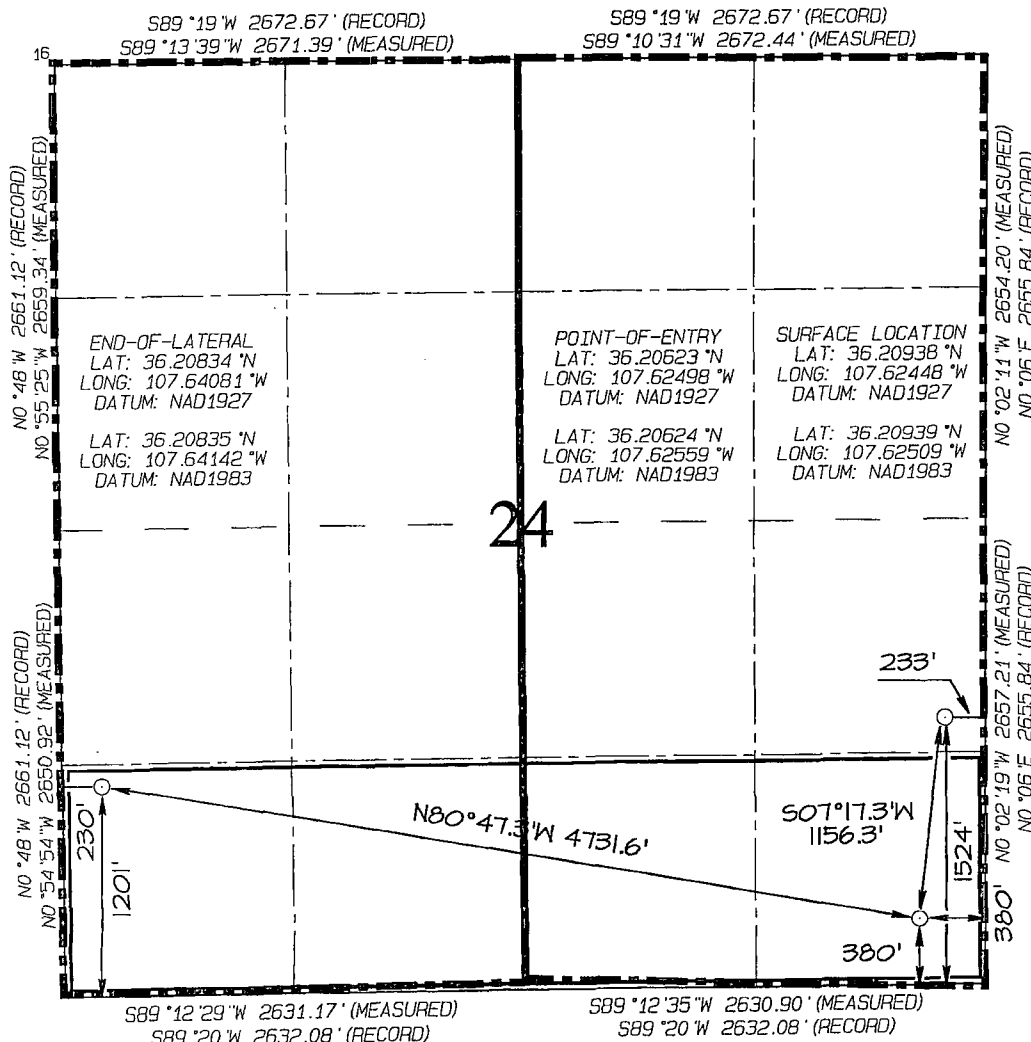
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	24	23N	8W		1524	SOUTH	233	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	24	23N	8W		1201	SOUTH	230	WEST	SAN JUAN

¹² Dedicated Acres 640 Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



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 into by the division.

Signature Larry Higgins Date _____

Printed Name Larry Higgins

E-mail Address larry.higgins@wpxenergy.com

18 SURVEYOR CERTIFICATION

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

Date Revised: MAY 16, 2014
 Survey Date: AUGUST 30, 2013

Signature and Seal of Professional Surveyor



A circular seal for Jason C. Edwards, a Registered Professional Surveyor in New Mexico. The outer ring contains the text "JASON C. EDWARDS" at the top and "REGISTERED PROFESSIONAL SURVEYOR" at the bottom. The inner circle contains the text "NEW MEXICO" at the top and the number "15269" in the center.

JASON C. EDWARDS

Certificate Number 15269

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 22nd day of May, 2014.

Name Larry Higgins

Position Title Regulatory Specialist

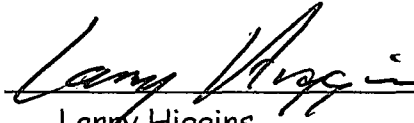
Address P.O. Box 640, Aztec, NM 87410

Telephone (505) 333-1808

Field representative (if not above signatory) _____

E-mail larry.higgins@wpxenergy.com

Date: 05/22/14



Larry Higgins
Regulatory Spec.
WPX Energy Production, LLC

WPX ENERGY**Operations Plan**

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

DATE: 5/9/2014 **FIELD:** Basin Mancos

WELL NAME: Chaco 2308-24I #156H **SURFACE:** FEE Land: W.A. Lybrook Heirs

SH Location: NESE Sec 24-23N-08W **ELEVATION:** 6884' GR

BH Location: SWSW Sec 24-23N-08W **MINERALS:** Federal
San Juan, NM

MEASURED DEPTH: 10,549' **LEASE #:** NMNM 110324

I. GEOLOGY: Surface formation – Nacimiento

A. FORMATION TOPS: (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	875	874	Point Lookout	4025	3863
Kirtland	1060	1057	Mancos	4210	4037
Picture Cliffs	1518	1500	Kickoff Point	4595	4400
Lewis	1644	1618	Top Target	5303	5008
Chacra	1921	1880	Landing Point	5813	5168
Cliff House	3061	2954	Base Target	5793	5168
Menefee	3127	3016			
			TD	10549	4978

- B. **MUD LOGGING PROGRAM:** Mudlogger on location from surface csg to TD.
- C. **LOGGING PROGRAM:** LWD GR from surface casing to TD.
- D. **NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

- A. **MUD PROGRAM:** LSND mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 3/4" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.
- B. **BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

NOTE: Vertical portion of the well (8-3/4 in.) will be directionally drilled as per attached Directional Plan to +/- 4595(MD) / 4,400' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 5,813' (MD) / 5,168' (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 +/- 10,549 (MD) / 4,978' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,663 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 5/8	36#	J-55
Intermediate	8.75"	5,813'	7	23#	K-55
Prod. Liner	6.125"	5,663' - 10,549'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5663'	4-1/2"	11.6#	N-80

B.

C. 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., and 2,000ft. Additionally run 1 turbolizing centralizer on every other joint from 100' below the top of the Kirtland to 100' above the top of the Ojo Alamo, as referenced in Formation Tops in Section I-A.
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

D. 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 +/- 5,363 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 5,813 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,663 ft. (MD) +/- 79 degree angle. TOC: +/- 5,363 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.



WPX Energy

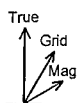
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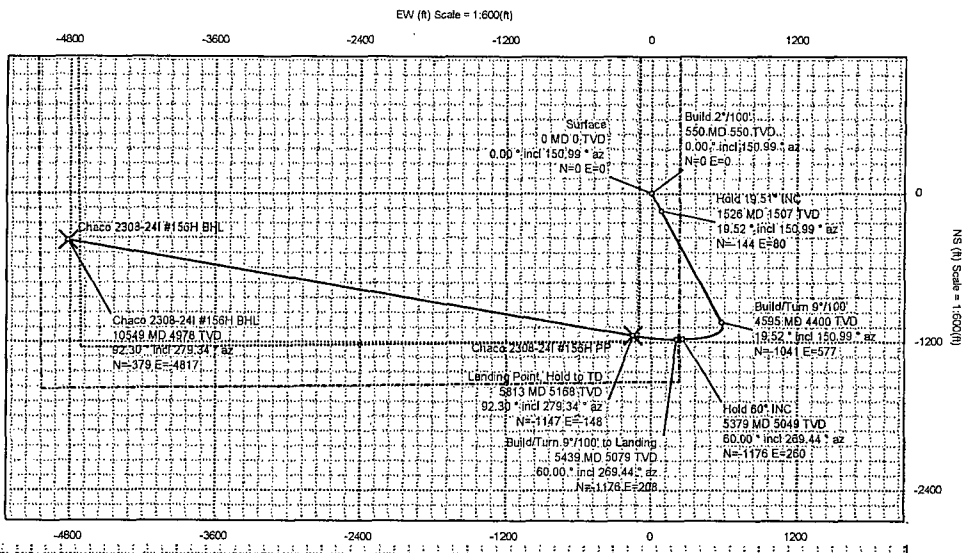
Borehole:	Well:	Field:	Structure:
Original Hole	Chaco 2308-24I #156H	NM San Juan County NAD27	Sec 24-23N-8W

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: BGGM 2013 Dip: 62.982° Date: 22-Nov-2013	NAD27 New Mexico State Plane, Western Zone, US Feet	Slot: Chaco 2308-24I #156H TVD Ref: RKB(6898ft above MSL)
MagDec: 9.516° FS: 50145.813nT Gravity FS: 998.919mgm (9.80665 Based)	Lat: N 36 12 33.77 Northing: 1895522.053R Grid Conv: 0.1234°	Plan: Chaco 2308-24I #156H R0 mdv 07May14
	Lon: W 107 37 28.13 Easting: 561613.981RU Scale Fact: 0.99992101	

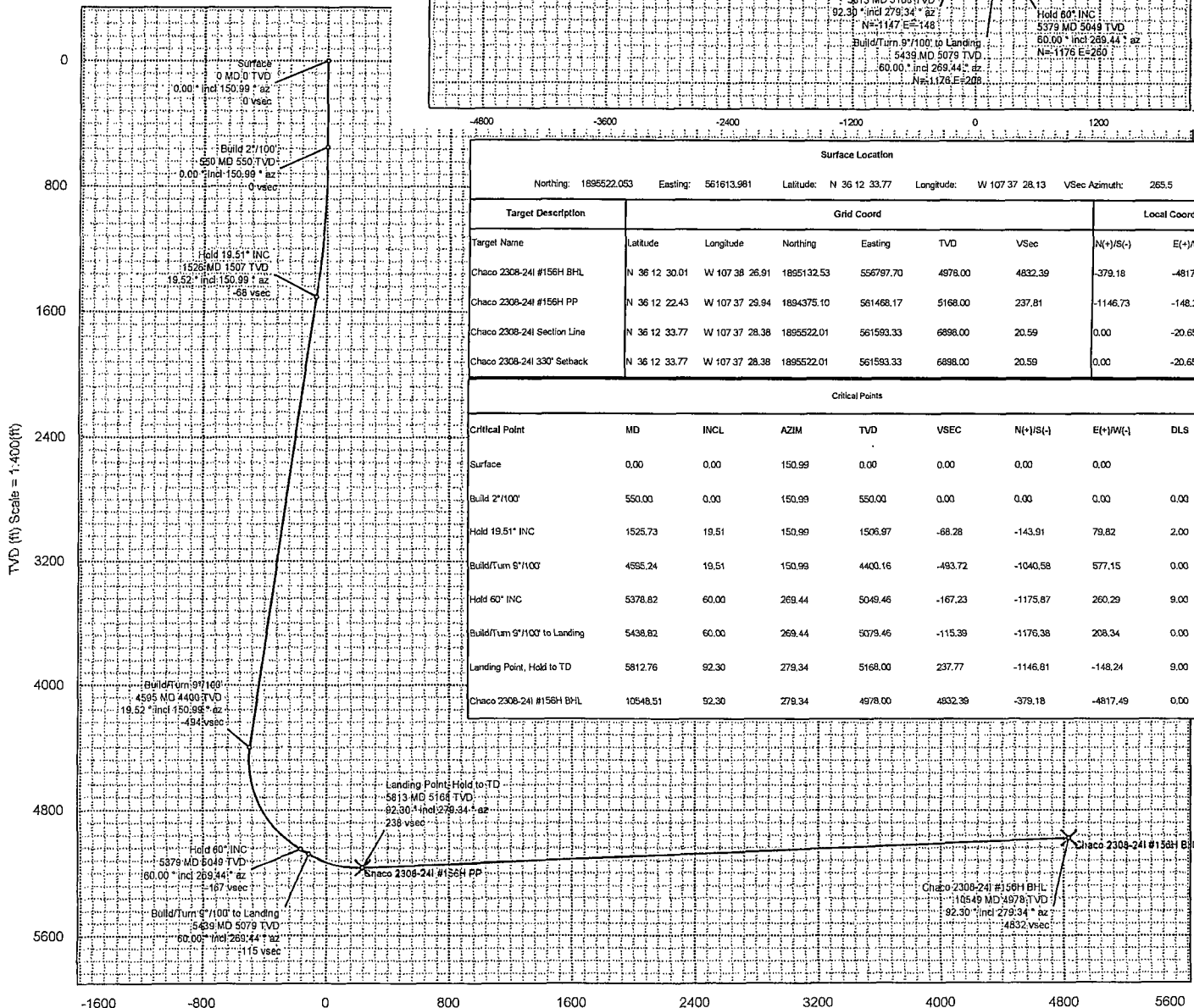
Proposal



True North
Tot Corr (M->T 9.516°)
Mag Dec (9.516°)
Grid Conv (0.123°)



Surface Location								
Northing: 1895522.053			Easting: 561613.981		Latitude: N 36 12 33.77		Longitude: W 107 37 28.13	
					VSec Azimuth: 265.5			
Target Description		Grid Coord					Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
Chaco 2308-24I #156H BHL	N 36 12 30.01	W 107 38 26.91	1895132.53	556797.70	4978.00	4832.39	-379.18	-4817.49
Chaco 2308-24I #156H PP	N 36 12 22.43	W 107 37 29.94	1894375.10	561468.17	5168.00	237.81	-1146.73	-148.29
Chaco 2308-24I Section Line	N 36 12 33.77	W 107 37 28.38	1895522.01	561593.33	6898.00	20.59	0.00	-20.65
Chaco 2308-24I 330° Setback	N 36 12 33.77	W 107 37 28.38	1895522.01	561593.33	6898.00	20.59	0.00	-20.65
Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	150.99	0.00	0.00	0.00	0.00	
Build 2°/100'	550.00	0.00	150.99	550.00	0.00	0.00	0.00	0.00
Hold 19.51° INC	1525.73	19.51	150.99	1506.97	-68.28	-143.91	79.82	2.00
Build/Turn 9°/100'	4555.24	19.51	150.99	4400.16	-493.72	-1040.58	577.15	0.00
Hold 60° INC	5378.82	60.00	269.44	5049.46	-167.23	-1175.87	260.29	9.00
Build/Turn 9°/100' to Landing	5438.82	60.00	269.44	5079.46	-115.39	-1176.38	208.34	0.00
Landing Point, Hold to TD	5812.76	92.30	279.34	5168.00	237.77	-1146.81	-148.24	9.00
Chaco 2308-24I #156H BHL	10548.51	92.30	279.34	4978.00	4832.39	-379.18	-4817.49	0.00



Vertical Section (ft) Azim = 265.5° Scale = 1:400(ft) Origin = 0N/-S, 0E/-W



Chaco 2308-24I #156H R0 mdv 07May14 Proposal Geodetic Report



(Def Plan)

Report Date: May 08, 2014 - 09:17 AM
Client: WPX Energy
Field: NM San Juan County NAD27
Structure / Slot: WPX Sec 24-23N-8W (Chaco 2308-24I #155H & #156H) / Chaco 2308-24I #156H
Well: Chaco 2308-24I #156H
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Chaco 2308-24I #156H R0 mdv 07May14
Survey Date: November 22, 2013
Tort / AHD / DDI / ERD Ratio: 123.694' / 6727.084 ft / 6.230 / 1.302
Coordinate Reference System: NAD27 New Mexico State Plane, Western Zone, US Feet
Location Lat / Long: N 36° 12' 33.78800", W 107° 37' 28.12800"
Location Grid N/E Y/X: N 1895522.053 RUS, E 561613.981 RUS
CRS Grid Convergence Angle: 0.1234 °
Grid Scale Factor: 0.99992101
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 265.500 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6898.000 ft above MSL
Seabed / Ground Elevation: 6884.000 ft above MSL
Magnetic Declination: 9.516 °
Total Gravity Field Strength: 998.9185mgn (9.80665 Based)
Gravity Model: DOX
Total Magnetic Field Strength: 50145.813 nT
Magnetic Dip Angle: 62.982 °
Declination Date: November 22, 2013
Magnetic Declination Model: BGGM 2013
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North→True: 9.5163 °
North:
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	150.99	0.00	0.00	0.00	0.00	N/A	1895522.05	561613.98	N 36 12 33.77	W 107 37 28.13
	100.00	0.00	150.99	100.00	0.00	0.00	0.00	0.00	1895522.05	561613.98	N 36 12 33.77	W 107 37 28.13
	200.00	0.00	150.99	200.00	0.00	0.00	0.00	0.00	1895522.05	561613.98	N 36 12 33.77	W 107 37 28.13
	300.00	0.00	150.99	300.00	0.00	0.00	0.00	0.00	1895522.05	561613.98	N 36 12 33.77	W 107 37 28.13
	400.00	0.00	150.99	400.00	0.00	0.00	0.00	0.00	1895522.05	561613.98	N 36 12 33.77	W 107 37 28.13
	500.00	0.00	150.99	500.00	0.00	0.00	0.00	0.00	1895522.05	561613.98	N 36 12 33.77	W 107 37 28.13
	550.00	0.00	150.99	550.00	0.00	0.00	0.00	0.00	1895522.05	561613.98	N 36 12 33.77	W 107 37 28.13
	600.00	1.00	150.99	600.00	-0.18	-0.38	0.21	2.00	1895521.67	561614.19	N 36 12 33.76	W 107 37 28.13
	700.00	3.00	150.99	699.93	-1.63	-3.43	1.90	2.00	1895518.62	561615.89	N 36 12 33.73	W 107 37 28.10
	800.00	5.00	150.99	799.68	-4.52	-9.53	5.29	2.00	1895512.53	561619.29	N 36 12 33.67	W 107 37 28.06
	900.00	7.00	150.99	899.13	-8.86	-18.67	10.36	2.00	1895503.40	561624.38	N 36 12 33.58	W 107 37 28.00
	1000.00	9.00	150.99	998.15	-14.63	-30.84	17.11	2.00	1895491.25	561631.15	N 36 12 33.46	W 107 37 27.92
	1100.00	11.00	150.99	1096.63	-21.84	-46.03	25.53	2.00	1895476.08	561639.61	N 36 12 33.31	W 107 37 27.82
	1200.00	13.00	150.99	1194.44	-30.47	-64.21	35.61	2.00	1895457.93	561649.73	N 36 12 33.13	W 107 37 27.69
	1300.00	15.00	150.99	1291.46	-40.50	-85.36	47.35	2.00	1895436.80	561661.51	N 36 12 32.92	W 107 37 27.55
	1400.00	17.00	150.99	1387.58	-51.94	-109.47	60.72	2.00	1895412.73	561674.93	N 36 12 32.69	W 107 37 27.39
	1500.00	19.00	150.99	1482.68	-64.76	-136.49	75.70	2.00	1895385.74	561689.97	N 36 12 32.42	W 107 37 27.20
Hold 19.51" INC	1525.73	19.51	150.99	1506.97	-68.28	-143.91	79.82	2.00	1895378.33	561694.10	N 36 12 32.34	W 107 37 27.15
	1600.00	19.51	150.99	1576.98	-78.57	-165.61	91.85	0.00	1895356.66	561706.18	N 36 12 32.13	W 107 37 27.01
	1700.00	19.51	150.99	1671.23	-92.43	-194.82	108.05	0.00	1895327.48	561722.45	N 36 12 31.84	W 107 37 26.81
	1800.00	19.51	150.99	1765.49	-106.29	-224.03	124.26	0.00	1895298.31	561738.71	N 36 12 31.55	W 107 37 26.61
	1900.00	19.51	150.99	1859.75	-120.16	-253.24	140.46	0.00	1895269.13	561754.97	N 36 12 31.26	W 107 37 26.41
	2000.00	19.51	150.99	1954.00	-134.02	-282.45	156.66	0.00	1895239.96	561771.24	N 36 12 30.97	W 107 37 26.22
	2100.00	19.51	150.99	2048.26	-147.88	-311.67	172.86	0.00	1895210.78	561787.50	N 36 12 30.69	W 107 37 26.02
	2200.00	19.51	150.99	2142.51	-161.74	-340.88	189.07	0.00	1895181.61	561803.77	N 36 12 30.40	W 107 37 25.82
	2300.00	19.51	150.99	2236.77	-175.60	-370.09	205.27	0.00	1895152.43	561820.03	N 36 12 30.11	W 107 37 25.62
	2400.00	19.51	150.99	2331.02	-189.46	-399.30	221.47	0.00	1895123.26	561836.29	N 36 12 29.82	W 107 37 25.43
	2500.00	19.51	150.99	2425.28	-203.32	-428.52	237.67	0.00	1895094.08	561852.56	N 36 12 29.53	W 107 37 25.23
	2600.00	19.51	150.99	2519.53	-217.18	-457.73	253.88	0.00	1895064.91	561868.82	N 36 12 29.24	W 107 37 25.03
	2700.00	19.51	150.99	2613.79	-231.04	-486.94	270.08	0.00	1895035.74	561885.08	N 36 12 28.95	W 107 37 24.83
	2800.00	19.51	150.99	2708.05	-244.90	-516.15	286.28	0.00	1895006.58	561901.35	N 36 12 28.66	W 107 37 24.63
	2900.00	19.51	150.99	2802.30	-258.76	-545.36	302.48	0.00	1894977.39	561917.61	N 36 12 28.37	W 107 37 24.44
	3000.00	19.51	150.99	2896.56	-272.62	-574.58	318.68	0.00	1894948.21	561933.88	N 36 12 28.09	W 107 37 24.24
	3100.00	19.51	150.99	2990.81	-286.48	-603.79	334.89	0.00	1894919.04	561950.14	N 36 12 27.80	W 107 37 24.04
	3200.00	19.51	150.99	3085.07	-300.34	-633.00	351.09	0.00	1894889.86	561966.40	N 36 12 27.51	W 107 37 23.84
	3300.00	19.51	150.99	3179.32	-314.20	-662.21	367.29	0.00	1894860.69	561982.67	N 36 12 27.22	W 107 37 23.65
	3400.00	19.51	150.99	3273.58	-328.06	-691.43	383.49	0.00	1894831.51	561998.93	N 36 12 26.93	W 107 37 23.45
	3500.00	19.51	150.99	3367.84	-341.92	-720.64	399.70	0.00	1894802.34	562015.20	N 36 12 26.64	W 107 37 23.25
	3600.00	19.51	150.99	3462.09	-355.78	-749.85	415.90	0.00	1894773.16	562031.46	N 36 12 26.35	W 107 37 23.05
	3700.00	19.51	150.99	3556.35	-369.64	-779.06	432.10	0.00	1894743.99	562047.72	N 36 12 26.06	W 107 37 22.86
	3800.00	19.51	150.99	3650.60	-383.50	-808.27	448.30	0.00	1894714.81	562063.99	N 36 12 25.77	W 107 37 22.66
	3900.00	19.51	150.99	3744.86	-397.36	-837.49	464.51	0.00	1894685.64	562080.25	N 36 12 25.49	W 107 37 22.46
	4000.00	19.51	150.99	3839.11	-411.22	-866.70	480.71	0.00	1894656.46	562096.51	N 36 12 25.20	W 107 37 22.26
	4100.00	19.51	150.99	3933.37	-425.08	-895.91	496.91	0.00	1894627.29	562112.78	N 36 12 24.91	W 107 37 22.06
	4200.00	19.51	150.99	4027.63	-438.94	-925.12	513.11	0.00	1894598.11	562129.04	N 36 12 24.62	W 107 37 21.87
	4300.00	19.51	150.99	4121.88	-452.80	-954.33	529.31	0.00	1894568.94	562145.31	N 36 12 24.33	W 107 37 21.67
	4400.00	19.51	150.99	4216.14	-466.66	-983.55	545.52	0.00	1894539.76	562161.57	N 36 12 24.04	W 107 37 21.47
	4500.00	19.51	150.99	4310.39	-480.52	-1012.76	561.72	0.00	1894510.59	562177.83	N 36 12 23.75	W 107 37 21.27
Build/Turn 9"/100'	4595.24	19.51	150.99	4400.16	-493.72	-1040.58	577.15	0.00	1894482.80	562193.32	N 36 12 23.48	W 107 37 21.09
	4600.00	19.26	152.03	4404.65	-494.36	-1041.97	577.90	9.00	1894481.41	562194.08	N 36 12 23.46	W 107 37 21.08
	4700.00	15.83	180.01	4500.15	-499.87	-1070.23	585.65	9.00	1894453.17	562201.89	N 36 12 23.18	W 107 37 20.98
	4800.00	16.96	212.04	4596.28	-490.09	-1096.29	577.90	9.00	1894427.10	562194.19	N 36 12 22.93	W 107 37 21.08
	4900.00	21.98	234.78	4690.67	-465.27	-1119.49	554.83	9.00	1894403.85	562171.17	N 36 12 22.70	W 107 37 21.36
	5000.00	28.91	248.27	4780.99	-426.02	-1139.28	517.01	9.00	1894383.98	562133.40	N 36 12 22.50	W 107 37 21.82
	5100.00	36.70	256.67	4865.02	-373.30	-1155.15	465.37	9.00	1894368.00	562081.80	N 36 12 22.34	W 107 37 22.45
	5200.00	44.88	262.41	4940.69	-308.40	-1166.73	401.19	9.00	1894356.29	562017.65	N 36 12 22.23	W 107 37 23.23
	5300.00	53.29	266.69	5006.14	-232.94	-1173.71	326.05	9.00	1894349.14	561942.53	N 36 12 22.16	W 107 37 24.15
Hold 60" INC	5378.82	60.00	269.44	5049.46	-167.23	-1175.87	260.29	9.00	1894346.84	561876.79	N 36 12 22.14	W 107 37 24.95
	5400.00	60.00	269.44	5060.05	-148.92	-1176.05	241.95	0.00	1894346.62	561858.44	N 36 12 22.14	W 107 37 25.18
Build/Turn 9"/100' to Landing	5438.82	60.00	269.44	5079.46	-115.39	-1176.38	208.34	0.00	1894346.22	561824.83	N 36 12 22.13	W 107 37 25.59
	5500.00	65.25	271.32	5107.58	-61.28	-1176.00	154.03	9.00	1894346.48	561770.53	N 36 12 22.14	W 107 37 26.25
	5600.00	73.87	274.07	5142.48	31.58	-1171.54	60.53	9.00	1894350.74	561677.03	N 36 12 22.18	W 107 37 27.39
	5700.00	82.53	276.60	5162.92	127.92	-1162.41	-36.83	9.00	1894359.66	561579.66	N 36 12 22.27	W 107 37 28.58
	5800.00	91.19	279.03	5168.39	225.37	-1148.84	-135.65	9.00	1894373.02	561480.82	N 36 12 22.41	W 107 37 29.78
Landing Point, Hold to TD	5812.76	92.30	279.34	5168.00	237.77	-1146.81	-148.24	9.00	1894375.02	561468.22	N 36 12 22.43	W 107 37 29.94
	5900.00	92.30	279.34	5164.50	322.41	-1132.67	-234.25	0.00	1894388.98	561382.19	N 36 12 22.57	W 107 37 30.99
	6000.00	92.30	279.34	5160.49	419.43	-1116.46	-332.85	0.00	1894404.97	561283.56	N 36 12 22.73	W 107 37 32.19
	6100.00	92.30	279.34	5156.48	516.45	-1100.25	-431.44	0.00	1894420.96	561184.94	N 36 12 22.89	W 107 37 33.39
	6200.00	92.30	279.34	5152.46	613.47	-1084.04	-530.04	0.00	1894436.96	561086.32	N 36 12 23.05	W 107 37 34.60
	6300.00	92.30										

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6700.00	92.30	279.34	5132.40	1098.57	-1003.00	-1023.02	0.00	1894516.93	560593.21	N 36 12 23.85	W 107 37 40.61
	6800.00	92.30	279.34	5128.39	1195.58	-986.80	-1121.62	0.00	1894532.92	560494.58	N 36 12 24.01	W 107 37 41.81
	6900.00	92.30	279.34	5124.37	1292.61	-970.59	-1220.21	0.00	1894548.92	560395.96	N 36 12 24.17	W 107 37 43.02
	7000.00	92.30	279.34	5120.36	1389.63	-954.38	-1318.81	0.00	1894564.91	560297.34	N 36 12 24.33	W 107 37 44.22
	7100.00	92.30	279.34	5116.35	1486.65	-938.17	-1417.41	0.00	1894580.91	560198.71	N 36 12 24.49	W 107 37 45.42
	7200.00	92.30	279.34	5112.33	1583.67	-921.96	-1516.00	0.00	1894596.90	560100.09	N 36 12 24.65	W 107 37 46.63
	7300.00	92.30	279.34	5108.32	1680.69	-905.75	-1614.60	0.00	1894612.90	560001.47	N 36 12 24.81	W 107 37 47.83
	7400.00	92.30	279.34	5104.31	1777.71	-889.54	-1713.19	0.00	1894628.89	559902.85	N 36 12 24.97	W 107 37 49.03
	7500.00	92.30	279.34	5100.30	1874.73	-873.34	-1811.79	0.00	1894644.89	559804.22	N 36 12 25.13	W 107 37 50.23
	7600.00	92.30	279.34	5096.29	1971.75	-857.13	-1910.39	0.00	1894660.88	559705.60	N 36 12 25.29	W 107 37 51.44
	7700.00	92.30	279.34	5092.27	2068.77	-840.92	-2008.98	0.00	1894676.88	559606.98	N 36 12 25.45	W 107 37 52.64
	7800.00	92.30	279.34	5088.26	2165.79	-824.71	-2107.58	0.00	1894692.87	559508.35	N 36 12 25.61	W 107 37 53.84
	7900.00	92.30	279.34	5084.25	2262.81	-808.50	-2206.17	0.00	1894708.87	559409.73	N 36 12 25.77	W 107 37 55.05
	8000.00	92.30	279.34	5080.24	2359.83	-792.29	-2304.77	0.00	1894724.86	559311.11	N 36 12 25.93	W 107 37 56.25
	8100.00	92.30	279.34	5076.22	2456.85	-776.08	-2403.37	0.00	1894740.86	559212.49	N 36 12 26.09	W 107 37 57.45
	8200.00	92.30	279.34	5072.21	2553.87	-759.87	-2501.96	0.00	1894756.86	559113.86	N 36 12 26.25	W 107 37 58.66
	8300.00	92.30	279.34	5068.20	2650.89	-743.66	-2600.56	0.00	1894772.85	559015.24	N 36 12 26.41	W 107 37 59.86
	8400.00	92.30	279.34	5064.19	2747.91	-727.45	-2699.15	0.00	1894788.85	558916.62	N 36 12 26.57	W 107 38 1.06
	8500.00	92.30	279.34	5060.18	2844.93	-711.25	-2797.75	0.00	1894804.84	558818.00	N 36 12 26.73	W 107 38 2.27
	8600.00	92.30	279.34	5056.16	2941.95	-695.04	-2896.35	0.00	1894820.84	558719.37	N 36 12 26.89	W 107 38 3.47
	8700.00	92.30	279.34	5052.15	3038.97	-678.83	-2994.94	0.00	1894836.83	558620.75	N 36 12 27.05	W 107 38 4.67
	8800.00	92.30	279.34	5048.14	3135.99	-662.62	-3093.54	0.00	1894852.83	558522.13	N 36 12 27.21	W 107 38 5.87
	8900.00	92.30	279.34	5044.13	3233.01	-646.41	-3192.13	0.00	1894868.83	558423.51	N 36 12 27.37	W 107 38 7.08
	9000.00	92.30	279.34	5040.12	3330.03	-630.20	-3290.73	0.00	1894884.82	558324.88	N 36 12 27.53	W 107 38 8.28
	9100.00	92.30	279.34	5036.10	3427.05	-613.99	-3389.32	0.00	1894900.82	558226.26	N 36 12 27.69	W 107 38 9.48
	9200.00	92.30	279.34	5032.09	3524.07	-597.78	-3487.92	0.00	1894916.81	558127.64	N 36 12 27.85	W 107 38 10.69
	9300.00	92.30	279.34	5028.08	3621.09	-581.57	-3586.52	0.00	1894932.81	558029.02	N 36 12 28.01	W 107 38 11.89
	9400.00	92.30	279.34	5024.07	3718.11	-565.36	-3685.11	0.00	1894948.81	557930.39	N 36 12 28.17	W 107 38 13.09
	9500.00	92.30	279.34	5020.06	3815.13	-549.15	-3783.71	0.00	1894964.80	557831.77	N 36 12 28.34	W 107 38 14.30
	9600.00	92.30	279.34	5016.05	3912.15	-532.94	-3882.30	0.00	1894980.80	557733.15	N 36 12 28.50	W 107 38 15.50
	9700.00	92.30	279.34	5012.04	4009.17	-516.73	-3980.90	0.00	1894996.80	557634.53	N 36 12 28.66	W 107 38 16.70
	9800.00	92.30	279.34	5008.02	4106.19	-500.52	-4079.50	0.00	1895012.79	557535.90	N 36 12 28.82	W 107 38 17.90
	9900.00	92.30	279.34	5004.01	4203.21	-484.31	-4178.09	0.00	1895028.79	557437.28	N 36 12 28.98	W 107 38 19.11
	10000.00	92.30	279.34	5000.00	4300.23	-468.10	-4276.69	0.00	1895044.79	557338.66	N 36 12 29.14	W 107 38 20.31
	10100.00	92.30	279.34	4995.99	4397.25	-451.89	-4375.28	0.00	1895060.78	557240.04	N 36 12 29.30	W 107 38 21.51
	10200.00	92.30	279.34	4991.98	4494.27	-435.68	-4473.88	0.00	1895076.78	557141.41	N 36 12 29.46	W 107 38 22.72
	10300.00	92.30	279.34	4987.97	4591.29	-419.47	-4572.47	0.00	1895092.78	557042.79	N 36 12 29.62	W 107 38 23.92
	10400.00	92.30	279.34	4983.96	4688.31	-403.26	-4671.07	0.00	1895108.77	556944.17	N 36 12 29.78	W 107 38 25.12
	10500.00	92.30	279.34	4979.95	4785.33	-387.04	-4769.67	0.00	1895124.77	556845.55	N 36 12 29.94	W 107 38 26.33
Chaco 2308-24I #156H BHL	10548.51	92.30	279.34	4978.00	4832.39	-379.18	-4817.49	0.00	1895132.53	556797.70	N 36 12 30.01	W 107 38 26.91

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	14.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Hole / Chaco 2308-24I #156H R0 mdv 07May14
	1	14.000	10548.509	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Chaco 2308-24I #156H R0 mdv 07May14

2. PROJECT LOCATION AND DESCRIPTION

2.1. Project Location

The project area is located in San Juan County, New Mexico. The project area is located approximately 40.0 miles southeast of the town of Bloomfield, New Mexico. To access the project area from Bloomfield, head southward on U.S. Highway 550 from the U.S. Highway 550-U.S. Highway 64 intersection for approximately 39.0 miles, turn right onto County Road 7900 and continue for 1.7 miles. Turn left onto an existing road and follow for approximately 3.7 miles to the start of the 155H/156H pipeline corridor at WPX's Chaco 2308-14E Nos. 151H and 152H (151H/152H) well pad. Follow the existing road from the 151H/152H well pad for an additional 1.3 miles to Elm Ridge's active Dome Federal 24 No. 21 well pad and the start of the 155H/156H access 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/ROW Grant permit packages.

The legal location of the project area is described in the below table (New Mexico Principal Meridian [NMPM]). The project features are depicted on Figure B.1 (Appendix B).

Table 2. Legal Land Description for the Proposed Project

Legal Location (NMPM)			Project-Feature
Township, Range	Section	Quarter-Quarter	
Township 23 North, Range 8 West	13	SE ½ of the NW ¼ SE ¼ of the SW ¼	pipeline corridor
		N ½ of the SW ¼	pipeline corridor and TUA 4
		S ½ of the NE ¼	pipeline corridor
	14	SW ¼ of the NE ¼	TUA 1
		SE ¼ of the NE ¼	TUA 2 and TUA 3
		S ½ of the NW ¼ N ½ of the SW ¼	pipeline corridor
	15	SE ¼ of the NE ¼	pipeline corridor
	23	E ½ of the SE ¼	pipeline corridor access road
	24	E ½ of the NW ¼ SW ¼ of the NW ¼ NW ¼ of the SW ¼	pipeline corridor and access road
		NE ¼ of the NE ¼	Elm Ridge's Dome Federal 24 No. 21 well pad
		SW ¼ of the SW ¼	pipeline corridor, access road, TUA 5, and TUA 6
		SE ¼ of the SW ¼	pipeline corridor, access road, and TUA 7
		S ½ of the SE ¼	pipeline corridor and access road
		NE ¼ of the SE ¼	pipeline corridor, access road, well pad, and well pad construction zone
		SE ¼ of the NE ¼	WPX's proposed 153H/154H well pad

The latitude and longitude of the 155H/156H bottom holes and surface holes (wellheads) are provided in the below table.

After a pipe has been welded and coated, a side-boom tractor will be used to place the pipe into the trench. Prior to construction commencement, WPX will notify the BLM-FFO of additional types of construction equipment to be used.

The soils excavated from the trench will be returned to the trench, atop the pipe, and compacted to prevent subsidence. The trench will be compacted after approximately 2 feet of fill is placed within the trench and after the ground surface has been leveled.

Prior to the pipelines being placed in service, the pipes will be pressure tested.

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

Construction plats are provided in the APD/ROW Grant permit packages.

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 toilet[s] and trash receptacle[s]).

10. ANCILLARY FACILITIES

Nine potential staging areas/TUAs will be used; these are described in Section 2.2 (Project Description).

If WPX's uses Elm Ridge's active Dome Federal 24 No. 21 well pad and/or WPX's proposed 153H/154H well pad as staging areas, WPX will stay within the boundaries of these previously disturbed well pads. During interim (post-construction) reclamation, WPX will repair any damage to and reseed the staging areas (with the exception of portions of well pads that Elm Ridge or WPX prefers 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 APD/ROW Grant permit packages. Rig orientation and the location of drilling equipment and topsoil or spoil material stockpiles are depicted on Figures B.3 and B.4 (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 western end of the well pad.

