

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: 3/31/14

Well information;

Operator WPX, Well Name and Number Chaco 2307-13A 184H

API# 30-039-31224, Section 13, Township 23 NS, Range 7 EW

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
- 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
- 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

Charles Hernandez
NMOCD Approved by Signature

4-10-2014
Date AV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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

MAR 31 2014

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.	
3a. Address P.O. Box 640 Aztec, NM 87410		8. Lease Name and Well No. Chaco 2307-13A #184H	
3b. Phone No. (include area code) (505) 333-1808		9. API Well No. 30-039-31224	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 929' FNL & 18' FEL, sec 13, T23N, R7W At proposed prod. zone 368' FNL & 230' FWL, sec 13, T23N, R7W		10. Field and Pool, or Exploratory Lybrook Gallup	
11. Sec., T., R., M., or Blk. and Survey or Area SHL- Sec. 13, T23N, R7W BHL - Sec. 13, T23N, R7W		12. County or Parish Rio Arriba	
13. State NM		14. Distance in miles and direction from nearest town or post office* approximately 2 miles northeast of Lybrook, New Mexico	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 13'		16. No. of Acres in lease 2384.69 2461.69	
17. Spacing Unit dedicated to this well 160 acres		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 40	
19. Proposed Depth 10,503' MD / 5,515' TVD		20. BLM/BIA Bond No. on file UTB000178	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6991' GR		22. Approximate date work will start* June 1, 2014	
23. Estimated duration 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:

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

25. Signature <i>Larry Higgins</i>	Name (Printed/Typed) Larry Higgins	Date 03/31/2014
Title Regulatory Specialist		

Approved by (Signature) <i>Troy Salyers</i>	Name (Printed/Typed) Troy Salyers	Date 4/3/2014
Title Petroleum Engineer (Acting 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 Lybrook Gallup 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. The road and location are on lease.

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 well pad with the Chaco 2307-13A #185H. An approximate 1687' access road is needed.

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

**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**

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

NMOC
PV

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 31st day of March, 2014.

Name Larry Higgins

Position Title Regulatory Specialist

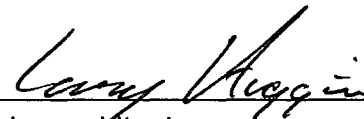
Address P.O. Box 640, Aztec, NM 87410

Telephone (505) 333-1808

Field representative (if not above signatory) _____

E-mail larry.higgins@wpxenergy.com

Date: 03/31/14



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

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT
RECEIVED

MAR 31 2014

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31224	² Pool Code 42289	³ Pool Name LYBROOK GALLUP	Farmington Field Office Bureau of Land Management
⁴ Property Code 313131	⁵ Property Name CHACO 2307-13A		⁶ Well Number 184H
⁷ GRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC		⁹ Elevation 6991'

¹⁰ Surface Location

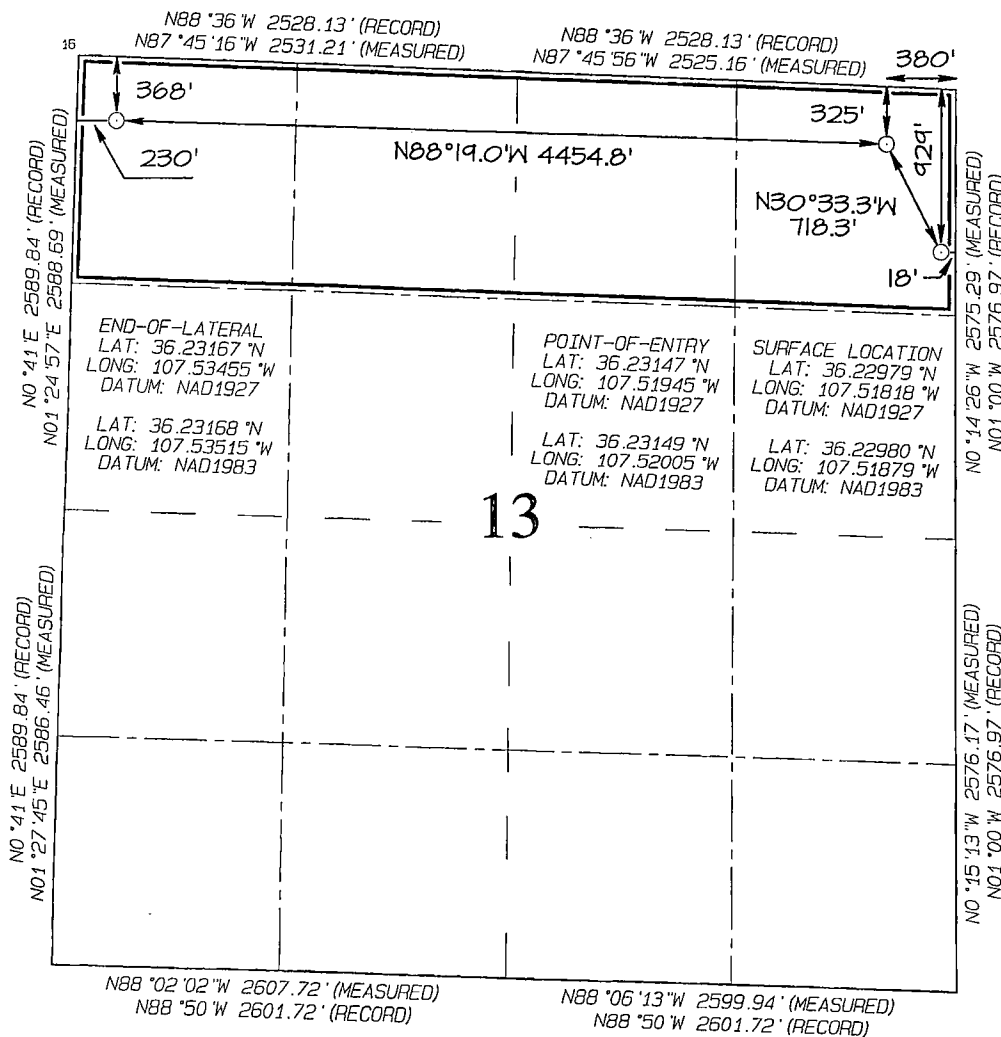
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	13	23N	7W		929	NORTH	18	EAST	RIO ARriba

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
D	13	23N	7W		368	NORTH	230	WEST	RIO ARriba

¹² Dedicated Acres 160.0 Acres - (N/2 N/2)	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 by the division.

Signature: *Larry Higgins* Date: **3-31-14**
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: MARCH 26, 2014
Date of Survey: MARCH 4, 2013

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269

WPX ENERGY**Operations Plan**

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

DATE: 3/26/2014 **FIELD:** Lybrook (Gallup)

WELL NAME: Chaco 2307-13A #184H **SURFACE:** BLM

SH Location: NENE Sec 13-23N-07W **ELEVATION:** 6991' GR

BH Location: NWNW Sec 13-23N-07W **MINERALS:** BLM
Rio Arriba, NM

MEASURED DEPTH: 10,503' **LEASE #:** NMSF 078359

I. GEOLOGY: Surface formation – San Jose**A. FORMATION TOPS: (KB)**

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1413	1404	Point Lookout	4343	4285
Kirtland	1728	1714	Mancos	4553	4494
Picture Cliffs	2047	2028	Kickoff Point	4978	4918
Lewis	2137	2116	Top Target	5791	5537
Chacra	2475	2449	Landing Point	6048	5585
Cliff House	3575	3530	Base Target	6010	5586
Menefee	3621	3575			
			TD	10503	5515

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 +/- 4,978 (MD) / 4,918' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,048 (MD) / 5,585' (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 +/- 10,503' (MD) / 5,515' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,898 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"	6,048'	7"	23#	K-55
Prod. Liner	6.125"	5,898' - 10,503'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5,898'	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., 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

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 +/- 5,598 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 6,048 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,898 ft. (MD) +/- 78 degree angle. TOC: +/- 5,598 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.

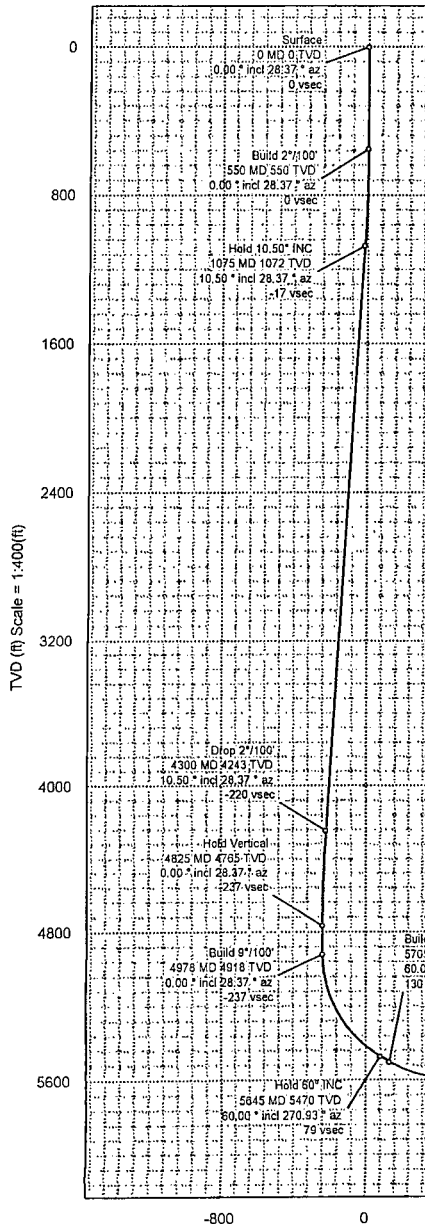
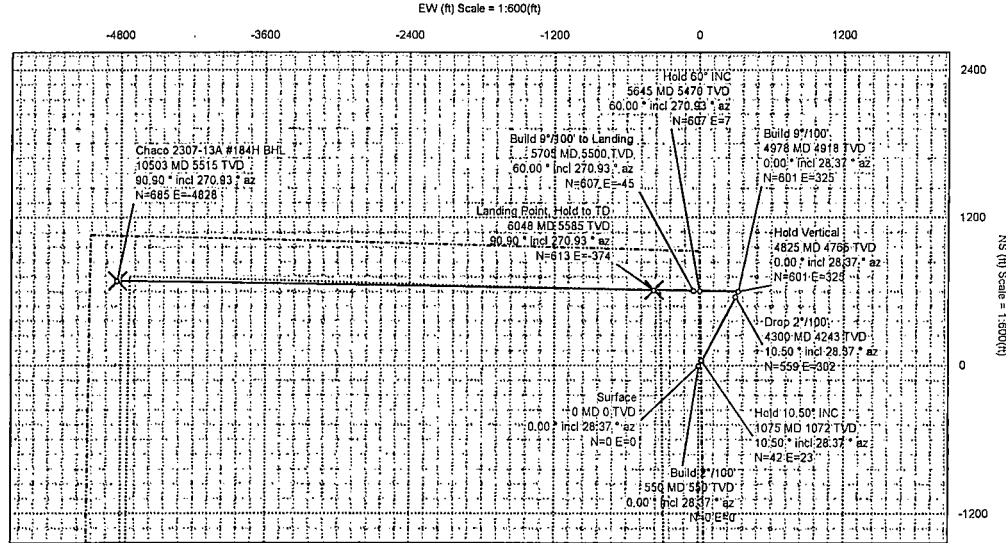
Borehole:	Well:	Field:	Structure:
Original Hole	Chaco 2307-13A #184H	NM, Rio Arriba (NAD 27 CZ)	Sec 13-23N-7W

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: BGGM 2013 Dip: 63.01° Date: 25-Mar-2014	NAD27 New Mexico State Plane, Central Zone, US Feet	Slot: Chaco 2307-13A #184H TVD Ref: RKB(7005ft above MSL)
MagDec: 9.438° FS: 50136.268mT Gravity FS: 998.491mgm (9.80665 Based)	Lat: N 36 13 47.24 Northing: 1905300.203ft Grid Conv: -0.7496° Lon: W 107 31 5.45 Easting: 125967.615ft Scale Fact: 1.00006009	Plan: Chaco 2307-13A #184H R0 mdv 25Mar14

Proposal



True North
Tot Corr (M>T 9.438°)
Mag Dec (9.438°)
Grid Conv (-0.750°)



Surface Location								
Northing: 1905300.203		Easting: 125967.615		Latitude: N 36 13 47.24		Longitude: W 107 31 5.45		VSec Azimuth: 278.08
Target Description		Grid Coord					Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
Chaco 2307-13A #184H BHL	N 36 13 54.02	W 107 32 4.37	1906048.71	121149.14	5515.00	4875.98	685.36	-4827.58
Chaco 2307-13A #184H PP	N 36 13 53.30	W 107 31 10.01	1905917.54	125602.06	5585.00	456.02	812.67	-373.59
Chaco 2307-13A Pad 330' Setback	N 36 13 47.24	W 107 31 5.45	1905300.20	125967.62	7005.00	0.00	0.00	0.00
Chaco 2307-13A Pad Section Line	N 36 13 47.24	W 107 31 5.45	1905300.20	125967.62	7005.00	0.00	0.00	0.00
Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	28.37	0.00	0.00	0.00	0.00	
Build 2°/100'	550.00	0.00	28.37	550.00	0.00	0.00	0.00	0.00
Hold 10.50° INC	1074.95	10.50	28.37	1072.02	-16.63	42.20	22.79	2.00
Drop 2°/100'	4299.91	10.50	28.37	4242.98	-220.45	559.25	302.06	0.00
Hold Vertical	4824.86	0.00	28.37	4765.00	-237.09	601.45	324.65	2.00
Build 9°/100'	4978.32	0.00	28.37	4918.48	-237.09	601.45	324.65	0.00
Hold 60° INC	5644.98	60.00	270.93	5469.79	78.75	606.64	6.58	9.00
Build 9°/100' to Landing	5704.98	60.00	270.93	5499.79	130.31	607.49	-45.37	0.00
Landing Point, Hold to TD	6048.32	90.90	270.93	5585.00	456.07	612.84	-373.64	9.00
Chaco 2307-13A #184H BHL	10503.40	90.90	270.93	5515.00	4875.99	685.36	-4827.58	0.00

Vertical Section (ft) Azim = 278.08° Scale = 1:400(ft) Origin = 0N/S, 0E/W

Chaco 2307-13A #184H R0 mdv 25Mar14 Proposal Geodetic Report

(Def Plan)

Report Date:	March 25, 2014 - 12:55 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	WPX Energy	Vertical Section Azimuth:	278.080 ° (True North)
Field:	NM, Rio Arriba (NAD 27 CZ)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	WPX Sec 13-23N-7W (Chaco 2307-13A #184H & #185H) / Chaco 2307-13A #184H	TVD Reference Datum:	RKB
Well:	Chaco 2307-13A #184H	TVD Reference Elevation:	7005.000 ft above MSL
Borehole:	Original Hole	Seabed / Ground Elevation:	6991.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	9.438 °
Survey Name:	Chaco 2307-13A #184H R0 mdv 25Mar14	Total Gravity Field Strength:	998.4908mgn (9.80665 Based)
Survey Date:	March 25, 2014	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	111.900 ° / 5836.683 ft / 6.089 / 1.045	Total Magnetic Field Strength:	50130.208 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Central Zone, US Feet	Magnetic Dip Angle:	63.010 °
Location Lat / Long:	N 36° 13' 47.24400", W 107° 31' 5.44800"	Declination Date:	March 25, 2014
Location Grid N/E Y/X:	N 1905300.203 ftUS, E 125967.815 ftUS	Magnetic Declination Model:	BGGM 2013
CRS Grid Convergence Angle:	-0.7496 °	North Reference:	True North
Grid Scale Factor:	1.00006009	Grid Convergence Used:	0.0000 °
Version / Patch:	2.7.1043.0	Total Corr Mag North-> True North:	9.4385 °
		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	28.37	0.00	0.00	0.00	0.00	N/A	1905300.20	125967.62	N 36 13 47.24	W 107 31 5.45
	100.00	0.00	28.37	100.00	0.00	0.00	0.00	0.00	1905300.20	125967.62	N 36 13 47.24	W 107 31 5.45
	200.00	0.00	28.37	200.00	0.00	0.00	0.00	0.00	1905300.20	125967.62	N 36 13 47.24	W 107 31 5.45
	300.00	0.00	28.37	300.00	0.00	0.00	0.00	0.00	1905300.20	125967.62	N 36 13 47.24	W 107 31 5.45
	400.00	0.00	28.37	400.00	0.00	0.00	0.00	0.00	1905300.20	125967.62	N 36 13 47.24	W 107 31 5.45
	500.00	0.00	28.37	500.00	0.00	0.00	0.00	0.00	1905300.20	125967.62	N 36 13 47.24	W 107 31 5.45
Build 2"/100'	550.00	0.00	28.37	550.00	0.00	0.00	0.00	0.00	1905300.20	125967.62	N 36 13 47.24	W 107 31 5.45
	600.00	1.00	28.37	600.00	-0.15	0.38	0.21	2.00	1905300.58	125967.83	N 36 13 47.25	W 107 31 5.45
	700.00	3.00	28.37	699.93	-1.36	3.45	1.87	2.00	1905303.63	125969.53	N 36 13 47.28	W 107 31 5.43
	800.00	5.00	28.37	799.68	-3.78	9.59	5.18	2.00	1905309.73	125972.92	N 36 13 47.34	W 107 31 5.38
	900.00	7.00	28.37	899.13	-7.41	18.79	10.15	2.00	1905318.86	125978.01	N 36 13 47.43	W 107 31 5.32
	1000.00	9.00	28.37	998.15	-12.23	31.03	16.76	2.00	1905331.02	125984.78	N 36 13 47.55	W 107 31 5.24
Hold 10.50° INC	1074.95	10.50	28.37	1072.02	-16.63	42.20	22.79	2.00	1905342.10	125990.96	N 36 13 47.66	W 107 31 5.17
	1100.00	10.50	28.37	1096.65	-18.22	46.22	24.96	0.00	1905346.09	125993.18	N 36 13 47.70	W 107 31 5.14
	1200.00	10.50	28.37	1194.97	-24.54	62.25	33.62	0.00	1905362.01	126002.05	N 36 13 47.86	W 107 31 5.04
	1300.00	10.50	28.37	1293.30	-30.86	78.28	42.28	0.00	1905377.93	126010.92	N 36 13 48.02	W 107 31 4.93
	1400.00	10.50	28.37	1391.63	-37.18	94.31	50.94	0.00	1905393.85	126019.79	N 36 13 48.18	W 107 31 4.83
	1500.00	10.50	28.37	1489.95	-43.50	110.35	59.60	0.00	1905409.77	126028.66	N 36 13 48.34	W 107 31 4.72
	1600.00	10.50	28.37	1588.28	-49.82	126.38	68.26	0.00	1905425.69	126037.53	N 36 13 48.49	W 107 31 4.61
	1700.00	10.50	28.37	1686.60	-56.14	142.41	76.92	0.00	1905441.61	126046.40	N 36 13 48.65	W 107 31 4.51
	1800.00	10.50	28.37	1784.93	-62.46	158.45	85.58	0.00	1905457.52	126055.28	N 36 13 48.81	W 107 31 4.40
	1900.00	10.50	28.37	1883.25	-68.78	174.48	94.24	0.00	1905473.44	126064.13	N 36 13 48.97	W 107 31 4.30
	2000.00	10.50	28.37	1981.58	-75.10	190.51	102.90	0.00	1905489.36	126073.00	N 36 13 49.13	W 107 31 4.19
	2100.00	10.50	28.37	2079.91	-81.42	206.54	111.56	0.00	1905505.28	126081.87	N 36 13 49.29	W 107 31 4.09
	2200.00	10.50	28.37	2178.23	-87.74	222.58	120.22	0.00	1905521.20	126090.74	N 36 13 49.45	W 107 31 3.98
	2300.00	10.50	28.37	2276.56	-94.06	238.61	128.88	0.00	1905537.12	126099.61	N 36 13 49.60	W 107 31 3.88
	2400.00	10.50	28.37	2374.88	-100.38	254.64	137.54	0.00	1905553.04	126108.48	N 36 13 49.76	W 107 31 3.77
	2500.00	10.50	28.37	2473.21	-106.70	270.67	146.19	0.00	1905568.96	126117.35	N 36 13 49.92	W 107 31 3.66
	2600.00	10.50	28.37	2571.53	-113.02	286.71	154.85	0.00	1905584.88	126126.22	N 36 13 50.08	W 107 31 3.56
	2700.00	10.50	28.37	2669.86	-119.34	302.74	163.51	0.00	1905600.80	126135.09	N 36 13 50.24	W 107 31 3.45
	2800.00	10.50	28.37	2768.19	-125.66	318.77	172.17	0.00	1905616.72	126143.95	N 36 13 50.40	W 107 31 3.35
	2900.00	10.50	28.37	2866.51	-131.98	334.81	180.83	0.00	1905632.63	126152.82	N 36 13 50.55	W 107 31 3.24
	3000.00	10.50	28.37	2964.84	-138.30	350.84	189.49	0.00	1905648.55	126161.69	N 36 13 50.71	W 107 31 3.14
	3100.00	10.50	28.37	3063.16	-144.62	366.87	198.15	0.00	1905664.47	126170.56	N 36 13 50.87	W 107 31 3.03
	3200.00	10.50	28.37	3161.49	-150.94	382.90	206.81	0.00	1905680.39	126179.43	N 36 13 51.03	W 107 31 2.92
	3300.00	10.50	28.37	3259.82	-157.26	398.94	215.47	0.00	1905696.31	126188.30	N 36 13 51.19	W 107 31 2.82
	3400.00	10.50	28.37	3358.14	-163.58	414.97	224.13	0.00	1905712.23	126197.17	N 36 13 51.35	W 107 31 2.71
	3500.00	10.50	28.37	3456.47	-169.90	431.00	232.79	0.00	1905728.15	126206.04	N 36 13 51.51	W 107 31 2.61
	3600.00	10.50	28.37	3554.79	-176.22	447.04	241.45	0.00	1905744.07	126214.91	N 36 13 51.66	W 107 31 2.50
	3700.00	10.50	28.37	3653.12	-182.54	463.07	250.11	0.00	1905759.99	126223.78	N 36 13 51.82	W 107 31 2.40
	3800.00	10.50	28.37	3751.44	-188.86	479.10	258.77	0.00	1905775.91	126232.64	N 36 13 51.98	W 107 31 2.29
	3900.00	10.50	28.37	3849.77	-195.18	495.13	267.43	0.00	1905791.82	126241.51	N 36 13 52.14	W 107 31 2.18
	4000.00	10.50	28.37	3948.10	-201.50	511.17	276.09	0.00	1905807.74	126250.38	N 36 13 52.30	W 107 31 2.08
	4100.00	10.50	28.37	4046.42	-207.82	527.20	284.75	0.00	1905823.66	126259.25	N 36 13 52.46	W 107 31 1.97
	4200.00	10.50	28.37	4144.75	-214.14	543.23	293.41	0.00	1905839.58	126268.12	N 36 13 52.62	W 107 31 1.87
Drop 2"/100'	4299.91	10.50	28.37	4242.98	-220.45	559.25	302.06	0.00	1905855.49	126276.98	N 36 13 52.77	W 107 31 1.76
	4300.00	10.50	28.37	4243.07	-220.46	559.26	302.07	2.00	1905855.50	126276.99	N 36 13 52.77	W 107 31 1.76
	4400.00	8.50	28.37	4341.70	-226.18	573.78	309.91	2.00	1905869.91	126285.02	N 36 13 52.92	W 107 31 1.67
	4500.00	6.50	28.37	4440.84	-230.70	585.26	316.11	2.00	1905881.31	126291.37	N 36 13 53.03	W 107 31 1.59
	4600.00	4.50	28.37	4540.37	-234.03	593.69	320.66	2.00	1905889.68	126296.03	N 36 13 53.11	W 107 31 1.53
	4700.00	2.50	28.37	4640.18	-236.14	599.06	323.58	2.00	1905895.01	126299.00	N 36 13 53.17	W 107 31 1.50
	4800.00	0.50	28.37	4740.14	-237.05	601.36	324.80	2.00	1905897.29	126300.27	N 36 13 53.19	W 107 31 1.48
Hold Vertical	4824.86	0.00	28.37	4765.00	-237.09	601.45	324.85	2.00	1905897.39	126300.33	N 36 13 53.19	W 107 31 1.48
	4900.00	0.00	28.37	4840.14	-237.09	601.45	324.85	0.00	1905897.39	126300.33	N 36 13 53.19	W 107 31 1.48
Build 9"/100'	4978.32	0.00	28.37	4918.46	-237.09	601.45	324.85	0.00	1905897.39	126300.33	N 36 13 53.19	W 107 31 1.48
	5000.00	1.95	270.93	4940.14	-236.72	601.46	324.48	9.00	1905897.40	126299.96	N 36 13 53.19	W 107 31 1.49
	5100.00	10.95	270.93	5039.40	-225.58	601.64	313.26	9.00	1905897.73	126288.74	N 36 13 53.19	W 107 31 1.62
	5200.00	19.95	270.93	5135.69	-199.17	602.07	286.65	9.00	1905898.51	126262.13	N 36 13 53.20	W 107 31 1.95
	5300.00	28.95	270.93	5226.63	-158.15	602.75	245.30	9.00	1905899.72	126220.80	N 36 13 53.20	W 107 31 2.45
	5400.00	37.95	270.93	5309.98	-103.51	603.64	190.24	9.00	1905901.34	126165.75	N 36 13 53.21	W 107 31 3.13
	5500.00	46.95	270.93	5383.69	-36.60	604.74	122.83	9.00	1905903.32	126098.35	N 36 13 53.22	W 107 31 3.95
	5600.00	55.95	270.93	5445.94	40.92	606.02	44.71	9.00	1905905.62	126020.25	N 36 13 53.24	W 107 31 4.90
Hold 60° INC	5644.98	60.00	270.93	5469.79	78.75	606.64	6.58	9.00	1905906.74	125982.13	N 36 13 53.24	W 107 31 5.37
	5700.00	60.00	270.93	5497.30	126.03	607.42	-41.06	0.00	1905908.14	125934.51	N 36 13 53.25	W 107 31 5.95
	5704.98	60.00	270.93	5499.79	130.31	607.49	-45.37	0.00	1905908.27	125930.19	N 36 13 53.25	W 107 31 6.00
Build 9"/100' to Landing	5800.00	68.55	270.93	5540.99	215.16	608.88	-130.88	9.00	1905910.78	125844.70	N 36 13 53.27	W 107 31 7.05
	5900.00	77.55	270.93	5570.11	309.98	610.44	-226.43	9.00	1905913.59	125749.18	N 36 13 53.28	W 107 31 8.21
	6000.00	86.55	270.93	5583.93	408.15	612.05	-325.35	9.00	1905916.49	125650.28	N 36 13 53.30	W 107 31 9.42
Landing Point, Hold to TD	6048.32	90.90	270.93	5585.00	456.07	612.84	-373.64	9.00	1905917.91	125602.01	N 36 13 53.30	W 107 31 10.01
	6100.00	90.90	270.93	5584.19	507.34	613.68	-425.31	0.00	1905919.43	125550.35	N 36 13 53.31	W 107 31 10.64
	6200.00	90.90	270.93	5582.62	615.31	615.31	-525.28	0.00	1905922.37	125450.40	N 36 13 53.33	W 107 31 11.86
	6300.00	90.90	270.93	5581.05	705.76	616.94	-625.26	0.00	1905925.31	125350.45	N 36 13 53.34	W 107 31 13.08
	6400.00	90.90	270.93									

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	90.90	270.93	5574.76	1102.61	623.46	-1025.15	0.00	1905937.06	124950.65	N 36 13 53.41	W 107 31 17.96
	6800.00	90.90	270.93	5573.19	1201.82	625.09	-1125.13	0.00	1905939.99	124850.70	N 36 13 53.43	W 107 31 19.18
	6900.00	90.90	270.93	5571.62	1301.03	626.72	-1225.10	0.00	1905942.93	124750.75	N 36 13 53.44	W 107 31 20.40
	7000.00	90.90	270.93	5570.05	1400.24	628.34	-1325.08	0.00	1905945.87	124650.80	N 36 13 53.46	W 107 31 21.62
	7100.00	90.90	270.93	5568.48	1499.45	629.97	-1425.05	0.00	1905948.80	124550.85	N 36 13 53.47	W 107 31 22.84
	7200.00	90.90	270.93	5566.91	1598.66	631.60	-1525.03	0.00	1905951.74	124450.90	N 36 13 53.49	W 107 31 24.06
	7300.00	90.90	270.93	5565.34	1697.87	633.23	-1625.00	0.00	1905954.68	124350.95	N 36 13 53.51	W 107 31 25.28
	7400.00	90.90	270.93	5563.77	1797.08	634.86	-1724.97	0.00	1905957.61	124250.99	N 36 13 53.52	W 107 31 26.50
	7500.00	90.90	270.93	5562.20	1896.29	636.49	-1824.95	0.00	1905960.55	124151.04	N 36 13 53.54	W 107 31 27.72
	7600.00	90.90	270.93	5560.63	1995.51	638.12	-1924.92	0.00	1905963.49	124051.09	N 36 13 53.55	W 107 31 28.94
	7700.00	90.90	270.93	5559.05	2094.72	639.75	-2024.90	0.00	1905966.42	123951.14	N 36 13 53.57	W 107 31 30.16
	7800.00	90.90	270.93	5557.48	2193.93	641.37	-2124.87	0.00	1905969.36	123851.19	N 36 13 53.59	W 107 31 31.38
	7900.00	90.90	270.93	5555.91	2293.14	643.00	-2224.85	0.00	1905972.30	123751.24	N 36 13 53.60	W 107 31 32.60
	8000.00	90.90	270.93	5554.34	2392.35	644.63	-2324.82	0.00	1905975.23	123651.29	N 36 13 53.62	W 107 31 33.82
	8100.00	90.90	270.93	5552.77	2491.56	646.26	-2424.79	0.00	1905978.17	123551.34	N 36 13 53.63	W 107 31 35.04
	8200.00	90.90	270.93	5551.20	2590.77	647.89	-2524.77	0.00	1905981.10	123451.39	N 36 13 53.65	W 107 31 36.26
	8300.00	90.90	270.93	5549.63	2689.98	649.51	-2624.74	0.00	1905984.04	123351.44	N 36 13 53.67	W 107 31 37.48
	8400.00	90.90	270.93	5548.06	2789.19	651.14	-2724.72	0.00	1905986.98	123251.49	N 36 13 53.68	W 107 31 38.70
	8500.00	90.90	270.93	5546.48	2888.40	652.77	-2824.69	0.00	1905989.91	123151.54	N 36 13 53.70	W 107 31 39.92
	8600.00	90.90	270.93	5544.91	2987.61	654.40	-2924.67	0.00	1905992.85	123051.59	N 36 13 53.71	W 107 31 41.14
	8700.00	90.90	270.93	5543.34	3086.82	656.02	-3024.64	0.00	1905995.78	122951.64	N 36 13 53.73	W 107 31 42.36
	8800.00	90.90	270.93	5541.77	3186.03	657.65	-3124.62	0.00	1905998.72	122851.69	N 36 13 53.75	W 107 31 43.59
	8900.00	90.90	270.93	5540.20	3285.24	659.28	-3224.59	0.00	1906001.65	122751.74	N 36 13 53.76	W 107 31 44.81
	9000.00	90.90	270.93	5538.63	3384.46	660.91	-3324.56	0.00	1906004.59	122651.79	N 36 13 53.78	W 107 31 46.03
	9100.00	90.90	270.93	5537.06	3483.67	662.53	-3424.54	0.00	1906007.52	122551.84	N 36 13 53.79	W 107 31 47.25
	9200.00	90.90	270.93	5535.48	3582.88	664.16	-3524.51	0.00	1906010.46	122451.89	N 36 13 53.81	W 107 31 48.47
	9300.00	90.90	270.93	5533.91	3682.09	665.79	-3624.49	0.00	1906013.39	122351.94	N 36 13 53.83	W 107 31 49.69
	9400.00	90.90	270.93	5532.34	3781.30	667.41	-3724.46	0.00	1906016.33	122251.99	N 36 13 53.84	W 107 31 50.91
	9500.00	90.90	270.93	5530.77	3880.51	669.04	-3824.44	0.00	1906019.26	122152.04	N 36 13 53.86	W 107 31 52.13
	9600.00	90.90	270.93	5529.20	3979.72	670.67	-3924.41	0.00	1906022.20	122052.09	N 36 13 53.87	W 107 31 53.35
	9700.00	90.90	270.93	5527.63	4078.93	672.29	-4024.39	0.00	1906025.13	121952.14	N 36 13 53.89	W 107 31 54.57
	9800.00	90.90	270.93	5526.06	4178.14	673.92	-4124.36	0.00	1906028.07	121852.19	N 36 13 53.91	W 107 31 55.79
	9900.00	90.90	270.93	5524.48	4277.35	675.55	-4224.33	0.00	1906031.00	121752.24	N 36 13 53.92	W 107 31 57.01
	10000.00	90.90	270.93	5522.91	4376.56	677.17	-4324.31	0.00	1906033.94	121652.29	N 36 13 53.94	W 107 31 58.23
	10100.00	90.90	270.93	5521.34	4475.77	678.80	-4424.28	0.00	1906036.87	121552.33	N 36 13 53.95	W 107 31 59.45
	10200.00	90.90	270.93	5519.77	4574.98	680.43	-4524.26	0.00	1906039.80	121452.38	N 36 13 53.97	W 107 32 0.67
	10300.00	90.90	270.93	5518.20	4674.19	682.05	-4624.23	0.00	1906042.74	121352.43	N 36 13 53.99	W 107 32 1.89
	10400.00	90.90	270.93	5516.63	4773.40	683.68	-4724.21	0.00	1906045.67	121252.48	N 36 13 54.00	W 107 32 3.11
	10500.00	90.90	270.93	5515.05	4872.61	685.30	-4824.18	0.00	1906048.61	121152.53	N 36 13 54.02	W 107 32 4.33

Chaco 2307-13A
#184H BHL 10503.40 90.90 270.93 5515.00 4875.99 685.36 -4827.58 0.00 1906048.70 121149.14 N 36 13 54.02 W 107 32 4.37

Survey Type: Der 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 2307-13A #184H R0 mdv 25Mar14
	1	14.000	10503.398	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Chaco 2307-13A #184H R0 mdv 25Mar14

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 2307-13A No. 184H (184H) and Chaco 2306-18D No. 185H (185H) Applications for Permit to Drill (APDs). This SUPO is provided per Onshore Oil and Gas Order No. 1.

The 184H and 185H oil and natural gas wells will be twinned with one another. Each well will be permitted under an APD. The associated well pad and access road, which will be located on-lease, will also be permitted under the APDs. Up to four potential staging areas will be used. If used, two of these staging areas, which are located on inactive well pads, will be authorized by agreements with other oil and gas operators. If used, the remaining two staging areas will be located on WPX well pads that will be disturbed prior to use.

The 184H and 185H wells will drill to BLM-managed minerals. A portion of the 184H/185H access road will be within the State Highway Department's right-of-way for U.S. Highway 550. Otherwise, all surface features associated with the project will be on surface managed by the BLM-FFO.

A pre-disturbance onsite meeting was held for the project on September 5, 2013. 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 42 miles south-southeast of the town of Bloomfield, New Mexico. To access the project area from the town of Bloomfield, head south on U.S. Highway 550 from the U.S. Highway 550-U.S. Highway 64 intersection for approximately 51 miles. The 184H/185H access road begins on the northern side of U.S. Highway 550. 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 packages.

The legal location of the project area is described in the table below (New Mexico Principal Meridian [NMPM]).

harm to roads, soils, or streams. WPX will use the six-step frozen ground procedure during frozen ground conditions.

9. METHODS FOR HANDLING WASTE DISPOSAL

- ✓ Drilling operations will utilize a closed-loop system. Drilling of the horizontal lateral may be done with water-based mud. All water-based mud cuttings will be hauled to a commercial disposal facility or land farm.

The drilling operations area will be enclosed by a containment berm and ditches, which will drain to sump areas for spill prevention and control. The containment berm will be ramped to allow access to the solids control area.

WPX will follow New Mexico Oil Conservation Division "Pit Rule" guidelines and Onshore Order Nos. 1 and 7 regarding the placement, operation, and closure of any reserve pits or closed-loop systems. No blow pit will be used.

As stated in the Reclamation Plan (Appendix A), if drilling has not been initiated on the well pad within 120 days of the well pad being constructed, WPX 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

Pipeline(s) will be permitted and constructed at a later date.

Up to four previously disturbed staging areas will be used; these staging areas are described in Section 2.2 (Project Description). During staging, WPX will stay within the boundaries of the previously disturbed well pad 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 APD packages. The location of drilling equipment, rig orientation, and the location of topsoil or spoil material stockpiles are provided on Figure B.3 (Appendix B). The layout of the completions rig is indicated on Figure B.4 (Appendix B).

After the drilling and completion phases of the project, WPX will meet with the BLM-FFO for a facility on-site meeting. A depiction of the production facility layout will be deferred until the facility on-site meeting is held with the BLM-FFO.

The interim reclamation/long-term disturbance layout is depicted in 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 southern end of the well pad.

