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: 11/20/13
Well information;
Operator WPX, Well Name and Number Chaco 2306-06L 239H

API# 30-039-31204, Section 6, 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
- 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
- o 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

Chris Kern
NMOCD Approved by Signature

12-18-2013 CK
Date

RECEIVED

NOV 21 2013

Farmington Field Office
Bureau of Land Management

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

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.

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

8. Lease Name and Well No.
Chaco 2306-06L #239H

2. Name of Operator
WPX Energy Production, LLC

9. API Well No.
30039312O4

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
P.O. Box 640 Aztec, NM 87410	(505) 333-1808	Lybrook Gallup

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*
At surface 1704' FSL & 517' FWL, sec 6, T23N, R6W
At proposed prod. zone 2567' FNL & 230' FWL, sec 1, T23N, R7W

11. Sec., T., R., M., or Blk. and Survey or Area
Section 6, T23N, R6W

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
approximately 3 miles northeast of Lybrook, New Mexico	Rio Arriba County	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 517'	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
	1277.68	151.55 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 40'	19. Proposed Depth	20. BLM/BIA Bond No. on file
	10,655' MD / 5,502' TVD	UTB000178
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
6938' GR	December 1, 2013	1 month

24. Attachments

RCVD DEC 9 '13
OIL CONS. DIV.
DIST. 3

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	11/20/13
Title: Permit Supervisor		
Approved by *(Signature)*: Matthew Mombeque	Name *(Printed/Typed)*	Date 12/6/13
Title: AFM	Office: FFO	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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

**(Instructions on reverse)*

WPX Energy Production, LLC, proposes to develop the 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.

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

No new access road is needed.

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

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE OR OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

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

NMOCD

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 20th day of November, 2013.

Name Larry Higgins

Position Title Permit Supervisor

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: 11/20/2013

Larry Higgins
Permit Suprv.
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

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NOV 21 2013
Farmington Field Office
Bureau of Land Management

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-31204	42289	LYBROOK GALLUP

[4] Property Code	[5] Property Name	[6] Well Number
40085	CHACO 2306-06L	239H

[7] OGRID No.	[8] Operator Name	[9] Elevation
120782	WPX ENERGY PRODUCTION, LLC	6938'

[10] Surface Location

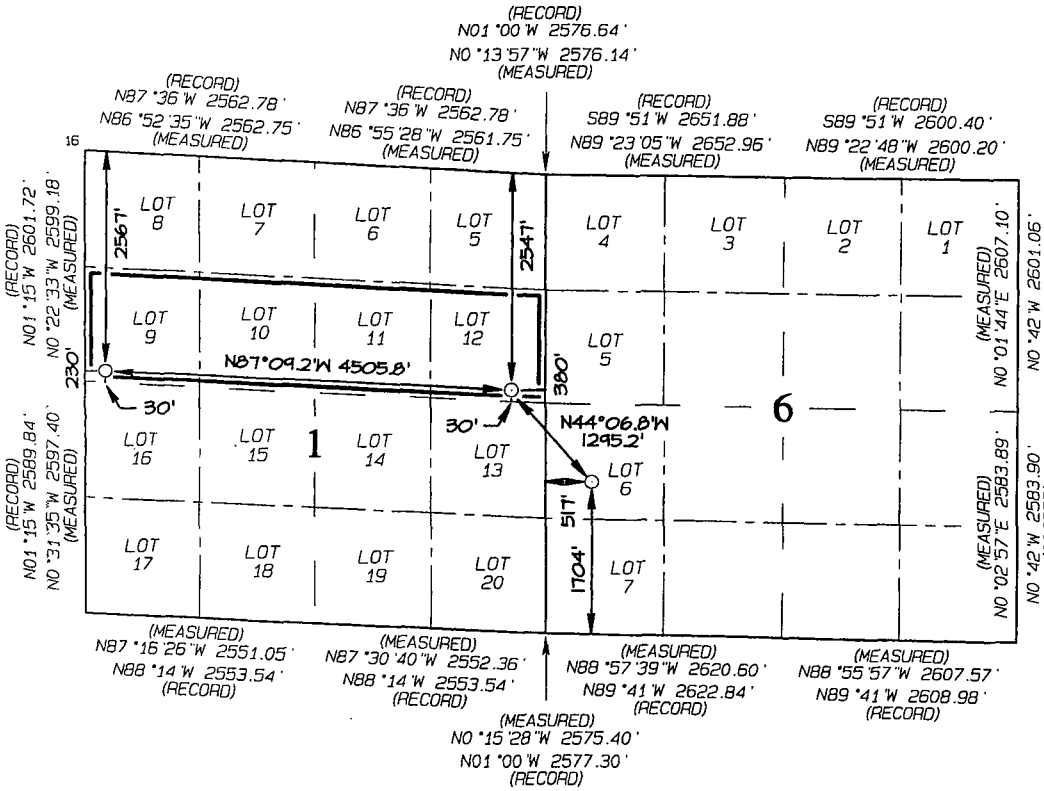
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	6	23N	6W	6	1704	SOUTH	517	WEST	RIO ARRIBA

[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
E	1	23N	7W	9	2567	NORTH	230	WEST	RIO ARRIBA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
151.55 Acres S/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
2567' FNL 230' FWL
SECTION 1, T23N, R7W
LAT: 36.25413 °N
LONG: 107.53519 °W
DATUM: NAD1927

LAT: 36.25415 °N
LONG: 107.53580 °W
DATUM: NAD1983

POINT-OF-ENTRY
2547' FNL 380' FEL
SECTION 1, T23N, R7W
LAT: 36.25368 °N
LONG: 107.51992 °W
DATUM: NAD1927

LAT: 36.25369 °N
LONG: 107.52053 °W
DATUM: NAD1983

SURFACE LOCATION
1704' FSL 517' FWL
SECTION 6, T23N, R6W
LAT: 36.25116 °N
LONG: 107.51682 °W
DATUM: NAD1927

LAT: 36.25117 °N
LONG: 107.51743 °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 11/20/13 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: NOVEMBER 19, 2013
Survey Date: OCTOBER 1, 2012

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:	11/12/2013	**FIELD:**	Lybrook (Gallup)
WELL NAME:	**Chaco 2306-06L #239H Rev (1)**	**SURFACE:**	BLM
SH Location:	NWSW Sec 6 -23N -06W	**ELEVATION:**	6938' GR
BH Location:	SWNW Sec 1 -23N -07W Rio Arriba Co, NM	**MINERALS:**	BLM
MEASURED DEPTH:	**10,655'**	**LEASE #:**	NMSF 078362

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

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

Name		MD	TVD		Name		MD	TVD
Ojo Alamo		1,454	1,441		Point Lookout		4,415	4,308
Kirtland		1,778	1,754		Mancos		4,640	4,531
Pictured Cliffs		2,078	2,044		**Kickoff Point**		**5,070**	**4,961**
Lewis		2,343	2,301		Target Top		5,801	5,544
Chacra		2,541	2,492		**Landing Point**		**6,148**	**5,627**
Cliff House		3,101	3,034		Target Base		6,148	5,627
Menefee		3,125	3,058					
					TD		**10,655**	**5,502**

B. **MUD LOGGING PROGRAM:** Mudlogger on location from surface csg to TD.

C. **LOGGING PROGRAM:** LWD GR from surface casing to TD. LWD GR / E- Sonic will be run in Lateral.

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 +/- 5,070' (MD) / 4,961' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,148' (MD) / 5,627' (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 +/- 10,655' (MD) / 5,502' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,998 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"	6,148'	7"	23#	K-55
Prod. Liner	6.125"	5,998' - 10,655'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5,998'	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 (563.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,698 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 6,148 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,998 ft. (MD) +/- 78 degree angle. TOC: +/- 5,698 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

WPX Energy

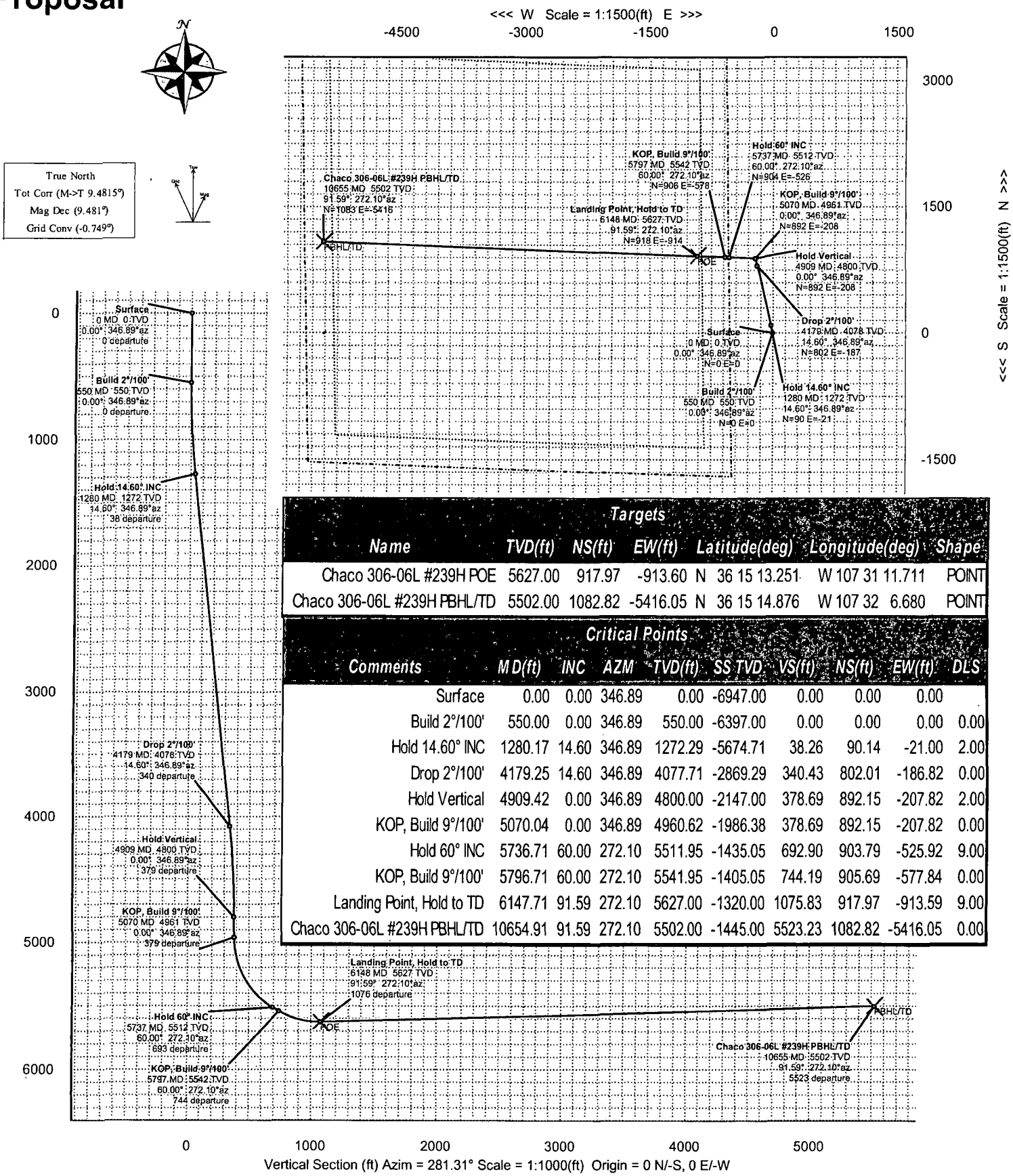
Rev 1

PATHFINDER
A Schlumberger Company

WELL	FIELD	STRUCTURE
Chaco 306-06L #239H	NM, Rio Arriba (NAD 27 CZ)	Sec 6-23N-6W

Magnetic Parameters				Surface Location				Miscellaneous			
Model: BGGM 2013	Dip: 63.039°	Date: November 07, 2013		Lat: N 36 15 4.173	Northing: 1913074.08 ftUS	Grid Conv: -0.749°		Slot: Chaco 306-06L #239H	TVD Ref: RKB(6947ft above MSL)		
	Mag Dec: 9.481°	FS: 50187.7nT		Lon: W 107 31 0.557	Easting: 126470.06 ftUS	Scale Fact: 1.00005966		Plan: R1 mcv 11Nov13	Srvy Date: November 07, 2013		

Proposal



Targets

Name	TVD(ft)	NS(ft)	EW(ft)	Latitude(deg)	Longitude(deg)	Shape
Chaco 306-06L #239H POE	5627.00	917.97	-913.60	N 36 15 13.251	W 107 31 11.711	POINT
Chaco 306-06L #239H PBHL/TD	5502.00	1082.82	-5416.05	N 36 15 14.876	W 107 32 6.680	POINT

Critical Points

Comments	MD(ft)	INC	AZM	TVD(ft)	SS TVD	VS(ft)	NS(ft)	EW(ft)	DLS
Surface	0.00	0.00	346.89	0.00	-6947.00	0.00	0.00	0.00	
Build 2°/100'	550.00	0.00	346.89	550.00	-6397.00	0.00	0.00	0.00	0.00
Hold 14.60° INC	1280.17	14.60	346.89	1272.29	-5674.71	38.26	90.14	-21.00	2.00
Drop 2°/100'	4179.25	14.60	346.89	4077.71	-2869.29	340.43	802.01	-186.82	0.00
Hold Vertical	4909.42	0.00	346.89	4800.00	-2147.00	378.69	892.15	-207.82	2.00
KOP, Build 9°/100'	5070.04	0.00	346.89	4960.62	-1986.38	378.69	892.15	-207.82	0.00
Hold 60° INC	5736.71	60.00	272.10	5511.95	-1435.05	692.90	903.79	-525.92	9.00
KOP, Build 9°/100'	5796.71	60.00	272.10	5541.95	-1405.05	744.19	905.69	-577.84	0.00
Landing Point, Hold to TD	6147.71	91.59	272.10	5627.00	-1320.00	1075.83	917.97	-913.59	9.00
Chaco 306-06L #239H PBHL/TD	10654.91	91.59	272.10	5502.00	-1445.00	5523.23	1082.82	-5416.05	0.00

WPXENERGY

PATHFINDER
A Schlumberger Company

Chaco 306-06L #239H R1 mdv 11Nov13 Proposal Geodetic Report

(Def Plan)

Report Date:	November 12, 2013 - 11:14 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	WPX Energy	**Vertical Section Azimuth:**	281.306 ° (True North)
Field:	NM, Rio Arriba (NAD 27 CZ)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	WPX Energy Sec 6-23N-6W (Chaco 306-06L #239H) / Chaco 306-06L #239H	**TVD Reference Datum:**	RKB
Well:	Chaco 306-06L #239H	**TVD Reference Elevation:**	6947.000 ft above MSL
Borehole:	Original Hole	**Seabed / Ground Elevation:**	6933.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	9.481 °
Survey Name:	Chaco 306-06L #239H R1 mdv 11Nov13	**Total Gravity Field Strength:**	998.4933mgn (9.80665 Based)
Survey Date:	November 07, 2013	**Total Magnetic Field Strength:**	50187.717 nT
Tort / AHD / DDI / ERD Ratio:	120.801 ° / 6127.756 ft / 6.147 / 1.089	**Magnetic Dip Angle:**	63.039 °
Coordinate Reference System:	NAD27 New Mexico State Plane, Central Zone, US Feet	**Declination Date:**	November 07, 2013
Location Lat / Long:	N 36° 15' 4.17312", W 107° 31' 0.55668"	**Magnetic Declination Model:**	BGGM 2013
Location Grid N/E Y/X:	N 1913074.083 ftUS, E 126470.063 ftUS	**North Reference:**	True North
CRS Grid Convergence Angle:	-0.7492 °	**Grid Convergence Used:**	0.0000 °
Grid Scale Factor:	1.00005966	**Total Corr Mag North->True North:**	9.4815 °
		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	346.89	0.00	0.00	0.00	0.00	N/A	1913074.08	126470.06	N 36 15 4.17	W 107 31 0.56
	100.00	0.00	346.89	100.00	0.00	0.00	0.00	0.00	1913074.08	126470.06	N 36 15 4.17	W 107 31 0.56
	200.00	0.00	346.89	200.00	0.00	0.00	0.00	0.00	1913074.08	126470.06	N 36 15 4.17	W 107 31 0.56
	300.00	0.00	346.89	300.00	0.00	0.00	0.00	0.00	1913074.08	126470.06	N 36 15 4.17	W 107 31 0.56
	400.00	0.00	346.89	400.00	0.00	0.00	0.00	0.00	1913074.08	126470.06	N 36 15 4.17	W 107 31 0.56
	500.00	0.00	346.89	500.00	0.00	0.00	0.00	0.00	1913074.08	126470.06	N 36 15 4.17	W 107 31 0.56
Build 2°/100'	550.00	0.00	346.89	550.00	0.00	0.00	0.00	0.00	1913074.08	126470.06	N 36 15 4.17	W 107 31 0.56
	600.00	1.00	346.89	600.00	0.18	0.42	-0.10	2.00	1913074.51	126469.97	N 36 15 4.18	W 107 31 0.56
	700.00	3.00	346.89	699.93	1.62	3.82	-0.89	2.00	1913077.92	126469.22	N 36 15 4.21	W 107 31 0.57
	800.00	5.00	346.89	799.68	4.51	10.62	-2.47	2.00	1913084.73	126467.73	N 36 15 4.28	W 107 31 0.59
	900.00	7.00	346.89	899.13	8.83	20.80	-4.84	2.00	1913094.94	126465.49	N 36 15 4.38	W 107 31 0.62
	1000.00	9.00	346.89	998.15	14.58	34.35	-8.00	2.00	1913108.54	126462.51	N 36 15 4.51	W 107 31 0.65
	1100.00	11.00	346.89	1096.63	21.76	51.26	-11.94	2.00	1913125.50	126458.79	N 36 15 4.68	W 107 31 0.70
	1200.00	13.00	346.89	1194.44	30.35	71.51	-16.66	2.00	1913145.81	126454.34	N 36 15 4.88	W 107 31 0.76
Hold 14.60° INC	1280.17	14.60	346.89	1272.29	38.26	90.14	-21.00	2.00	1913164.49	126450.25	N 36 15 5.06	W 107 31 0.81
	1300.00	14.60	346.89	1291.48	40.33	95.01	-22.13	0.00	1913169.37	126449.17	N 36 15 5.11	W 107 31 0.83
	1400.00	14.60	346.89	1388.25	50.75	119.56	-27.85	0.00	1913194.00	126443.78	N 36 15 5.36	W 107 31 0.90
	1500.00	14.60	346.89	1485.02	61.17	144.12	-33.57	0.00	1913218.63	126438.38	N 36 15 5.60	W 107 31 0.97
	1600.00	14.60	346.89	1581.79	71.60	168.67	-39.29	0.00	1913243.26	126432.98	N 36 15 5.84	W 107 31 1.04
	1700.00	14.60	346.89	1678.56	82.02	193.23	-45.01	0.00	1913267.89	126427.58	N 36 15 6.08	W 107 31 1.11
	1800.00	14.60	346.89	1775.33	92.44	217.78	-50.73	0.00	1913292.52	126422.18	N 36 15 6.33	W 107 31 1.18
	1900.00	14.60	346.89	1872.10	102.87	242.34	-56.45	0.00	1913317.15	126416.78	N 36 15 6.57	W 107 31 1.25
	2000.00	14.60	346.89	1968.87	113.29	266.89	-62.17	0.00	1913341.78	126411.38	N 36 15 6.81	W 107 31 1.32
	2100.00	14.60	346.89	2065.63	123.71	291.45	-67.89	0.00	1913366.41	126405.98	N 36 15 7.06	W 107 31 1.39
	2200.00	14.60	346.89	2162.40	134.13	316.00	-73.61	0.00	1913391.04	126400.59	N 36 15 7.30	W 107 31 1.46
	2300.00	14.60	346.89	2259.17	144.56	340.56	-79.33	0.00	1913415.67	126395.19	N 36 15 7.54	W 107 31 1.53
	2400.00	14.60	346.89	2355.94	154.98	365.11	-85.05	0.00	1913440.30	126389.79	N 36 15 7.78	W 107 31 1.60
	2500.00	14.60	346.89	2452.71	165.40	389.67	-90.77	0.00	1913464.93	126384.39	N 36 15 8.03	W 107 31 1.66
	2600.00	14.60	346.89	2549.48	175.83	414.22	-96.49	0.00	1913489.56	126378.99	N 36 15 8.27	W 107 31 1.73
	2700.00	14.60	346.89	2646.25	186.25	438.78	-102.21	0.00	1913514.19	126373.59	N 36 15 8.51	W 107 31 1.80
	2800.00	14.60	346.89	2743.02	196.67	463.34	-107.93	0.00	1913538.82	126368.19	N 36 15 8.75	W 107 31 1.87
	2900.00	14.60	346.89	2839.79	207.10	487.89	-113.65	0.00	1913563.45	126362.79	N 36 15 9.00	W 107 31 1.94
	3000.00	14.60	346.89	2936.56	217.52	512.45	-119.37	0.00	1913588.08	126357.40	N 36 15 9.24	W 107 31 2.01
	3100.00	14.60	346.89	3033.33	227.94	537.00	-125.09	0.00	1913612.70	126352.00	N 36 15 9.48	W 107 31 2.08
	3200.00	14.60	346.89	3130.10	238.36	561.56	-130.81	0.00	1913637.33	126346.60	N 36 15 9.73	W 107 31 2.15
	3300.00	14.60	346.89	3226.87	248.79	586.11	-136.53	0.00	1913661.96	126341.20	N 36 15 9.97	W 107 31 2.22
	3400.00	14.60	346.89	3323.64	259.21	610.67	-142.25	0.00	1913686.59	126335.80	N 36 15 10.21	W 107 31 2.29
	3500.00	14.60	346.89	3420.41	269.63	635.22	-147.97	0.00	1913711.22	126330.40	N 36 15 10.45	W 107 31 2.36
	3600.00	14.60	346.89	3517.18	280.06	659.78	-153.69	0.00	1913735.85	126325.00	N 36 15 10.70	W 107 31 2.43
	3700.00	14.60	346.89	3613.95	290.48	684.33	-159.41	0.00	1913760.48	126319.61	N 36 15 10.94	W 107 31 2.50
	3800.00	14.60	346.89	3710.71	300.90	708.89	-165.13	0.00	1913785.11	126314.21	N 36 15 11.18	W 107 31 2.57
	3900.00	14.60	346.89	3807.48	311.33	733.44	-170.85	0.00	1913809.74	126308.81	N 36 15 11.43	W 107 31 2.64
	4000.00	14.60	346.89	3904.25	321.75	758.00	-176.57	0.00	1913834.37	126303.41	N 36 15 11.67	W 107 31 2.71
	4100.00	14.60	346.89	4001.02	332.17	782.55	-182.29	0.00	1913859.00	126298.01	N 36 15 11.91	W 107 31 2.78
Drop 2°/100'	4179.25	14.60	346.89	4077.71	340.43	802.01	-186.82	0.00	1913878.52	126293.73	N 36 15 12.10	W 107 31 2.84
	4200.00	14.19	346.89	4097.81	342.56	807.04	-187.99	2.00	1913883.56	126292.63	N 36 15 12.15	W 107 31 2.85
	4300.00	12.19	346.89	4195.17	352.00	829.26	-193.17	2.00	1913905.84	126287.74	N 36 15 12.37	W 107 31 2.92
	4400.00	10.19	346.89	4293.26	360.02	848.15	-197.57	2.00	1913924.80	126283.59	N 36 15 12.56	W 107 31 2.97
	4500.00	8.19	346.89	4391.97	366.62	863.71	-201.19	2.00	1913940.40	126280.17	N 36 15 12.71	W 107 31 3.01
	4600.00	6.19	346.89	4491.18	371.79	875.89	-204.03	2.00	1913952.62	126277.49	N 36 15 12.83	W 107 31 3.05
	4700.00	4.19	346.89	4590.77	375.53	884.70	-206.08	2.00	1913961.45	126275.55	N 36 15 12.92	W 107 31 3.07
	4800.00	2.19	346.89	4690.61	377.83	890.12	-207.35	2.00	1913966.88	126274.36	N 36 15 12.98	W 107 31 3.09
	4900.00	0.19	346.89	4790.58	378.69	892.13	-207.82	2.00	1913968.91	126273.92	N 36 15 13.00	W 107 31 3.09
Hold Vertical	4909.42	0.00	346.89	4800.00	378.69	892.15	-207.82	2.00	1913968.93	126273.91	N 36 15 13.00	W 107 31 3.09
	5000.00	0.00	346.89	4890.58	378.69	892.15	-207.82	0.00	1913968.93	126273.91	N 36 15 13.00	W 107 31 3.09
KOP, Build 9°/100'	5070.04	0.00	346.89	4960.62	378.69	892.15	-207.82	0.00	1913968.93	126273.91	N 36 15 13.00	W 107 31 3.09
	5100.00	2.70	272.10	4990.57	379.39	892.18	-208.52	9.00	1913968.96	126273.21	N 36 15 13.00	W 107 31 3.10
	5200.00	11.70	272.10	5089.68	391.74	892.63	-221.03	9.00	1913969.58	126260.71	N 36 15 13.00	W 107 31 3.26
	5300.00	20.70	272.10	5185.61	419.25	893.65	-248.88	9.00	1913970.96	126232.88	N 36 15 13.01	W 107 31 3.60
	5400.00	29.70	272.10	5276.01	461.23	895.21	-291.38	9.00	1913973.07	126190.40	N 36 15 13.03	W 107 31 4.11
	5500.00	38.70	272.10	5358.63	516.65	897.26	-347.48	9.00	1913975.86	126134.32	N 36 15 13.05	W 107 31 4.80
	5600.00	47.70	272.10	5431.46	584.15	899.76	-415.82	9.00	1913979.25	126066.02	N 36 15 13.07	W 107 31 5.63
	5700.00	56.70	272.10	5492.69	662.06	902.64	-494.70	9.00	1913983.17	125987.18	N 36 15 13.10	W 107 31 6.60
Hold 60° INC	5736.71	60.00	272.10	5511.95	692.90	903.79	-525.92	9.00	1913984.72	125955.98	N 36 15 13.11	W 107 31 6.98
KOP, Build 9°/100'	5796.71	60.00	272.10	5541.95	744.19	905.69	-577.84	0.00	1913987.30	125904.08	N 36 15 13.13	W 107 31 7.61
	5800.00	60.30	272.10	5543.59	747.01	905.79	-580.70	9.00	1913987.44	125901.22	N 36 15 13.13	W 107 31 7.65
	5900.00	69.30	272.10	5586.13	836.23	909.09	-671.02	9.00	1913991.93	125810.94	N 36 15 13.16	W 107 31 8.75
	6000.00	78.30	272.10	5614.01	930.92	912.60	-766.89	9.00	1913996.69	125715.13	N 36 15 13.20	W 107 31 9.92
	6100.00	87.30	272.10	5626.53	1028.75	916.22	-865.93	9.00	1914001.60	125616.14	N 36 15 13.23	W 107 31 11.13
Landing Point, Hold to TD	6147.71	91.59	272.10	5627.00	1075.83	917.97	-913.59	9.00	1914003.97	125568.50	N 36 15 13.25	W 107 31 11.71
	6200.00	91.59	272.10	5625.55	1127.43	919.88	-965.83	0.00	1914006.57	125516.29	N 36 15 13.27	W 107 31 12.35
	6300.00	91.59	272.10	5622.77	1226.10	923.53	-1065.73	0.00	1914011.53	125416.44	N 36 15 13.31	W 107 31 13.57
	6400.00	91.59	272.10	5620.00	1324.78	927.19	-1165.62	0.00	1914016.49	125316.60	N 36 15 13.34	W 107 31 14.79
	6500.00	91.59	272.10	5617.22	1423.45	930.84	-1265.52	0.00	1914021.45	125216.75	N 36 15 13.38	W 107 31 16.01
	6600.00	91.59	272.10	5614.45	1522.12	934.50	-1365.41	0.00	1914026.41	125116.91	N 36 15 13.41	W 107 31 17.23
	6700.00	91.59	272.10	5611.67	1620.79	938.15	-1465.31	0.00	1914031.37	125017.07	N 36 15 13.45	W 107 31 18.45
	6800.00	91.59	272.10	5608.90	1719.47	941.81	-1565.20	0.00	1914036.33	124917.22	N 36 15 13.49	W 107 31 19.67
	6900.00	91.59	272.10	5606.13	1818.14	945.46	-1665.09	0.00	1914041.29	124817.38	N 36 15 13.52	W 107 31 20.89

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 ° ' ")
	7000.00	91.59	272.10	5603.35	1916.81	949.12	-1764.99	0.00	1914046.25	124717.53	N 36 15 13.56	W 107 31 22.11
	7100.00	91.59	272.10	5600.58	2015.48	952.77	-1864.88	0.00	1914051.22	124617.69	N 36 15 13.59	W 107 31 23.32
	7200.00	91.59	272.10	5597.80	2114.16	956.43	-1964.78	0.00	1914056.18	124517.85	N 36 15 13.63	W 107 31 24.54
	7300.00	91.59	272.10	5595.03	2212.83	960.09	-2064.67	0.00	1914061.14	124418.00	N 36 15 13.67	W 107 31 25.76
	7400.00	91.59	272.10	5592.25	2311.50	963.74	-2164.57	0.00	1914066.10	124318.16	N 36 15 13.70	W 107 31 26.98
	7500.00	91.59	272.10	5589.48	2410.18	967.40	-2264.46	0.00	1914071.06	124218.31	N 36 15 13.74	W 107 31 28.20
	7600.00	91.59	272.10	5586.71	2508.85	971.05	-2364.36	0.00	1914076.03	124118.47	N 36 15 13.77	W 107 31 29.42
	7700.00	91.59	272.10	5583.93	2607.52	974.71	-2464.25	0.00	1914080.99	124018.63	N 36 15 13.81	W 107 31 30.64
	7800.00	91.59	272.10	5581.16	2706.19	978.37	-2564.15	0.00	1914085.95	123918.78	N 36 15 13.85	W 107 31 31.86
	7900.00	91.59	272.10	5578.39	2804.87	982.02	-2664.04	0.00	1914090.91	123818.94	N 36 15 13.88	W 107 31 33.08
	8000.00	91.59	272.10	5575.61	2903.54	985.68	-2763.94	0.00	1914095.88	123719.09	N 36 15 13.92	W 107 31 34.30
	8100.00	91.59	272.10	5572.84	3002.21	989.34	-2863.83	0.00	1914100.84	123619.25	N 36 15 13.96	W 107 31 35.52
	8200.00	91.59	272.10	5570.07	3100.89	993.00	-2963.72	0.00	1914105.80	123519.41	N 36 15 13.99	W 107 31 36.74
	8300.00	91.59	272.10	5567.29	3199.56	996.65	-3063.62	0.00	1914110.77	123419.56	N 36 15 14.03	W 107 31 37.96
	8400.00	91.59	272.10	5564.52	3298.23	1000.31	-3163.51	0.00	1914115.73	123319.72	N 36 15 14.06	W 107 31 39.18
	8500.00	91.59	272.10	5561.75	3396.91	1003.97	-3263.41	0.00	1914120.70	123219.87	N 36 15 14.10	W 107 31 40.40
	8600.00	91.59	272.10	5558.97	3495.58	1007.63	-3363.30	0.00	1914125.66	123120.03	N 36 15 14.14	W 107 31 41.62
	8700.00	91.59	272.10	5556.20	3594.25	1011.28	-3463.20	0.00	1914130.62	123020.19	N 36 15 14.17	W 107 31 42.84
	8800.00	91.59	272.10	5553.43	3692.93	1014.94	-3563.09	0.00	1914135.58	122920.34	N 36 15 14.21	W 107 31 44.06
	8900.00	91.59	272.10	5550.65	3791.60	1018.60	-3662.99	0.00	1914140.55	122820.50	N 36 15 14.24	W 107 31 45.28
	9000.00	91.59	272.10	5547.88	3890.27	1022.26	-3762.88	0.00	1914145.52	122720.65	N 36 15 14.28	W 107 31 46.50
	9100.00	91.59	272.10	5545.11	3988.95	1025.92	-3862.78	0.00	1914150.48	122620.81	N 36 15 14.32	W 107 31 47.72
	9200.00	91.59	272.10	5542.33	4087.62	1029.58	-3962.67	0.00	1914155.45	122520.97	N 36 15 14.35	W 107 31 48.94
	9300.00	91.59	272.10	5539.56	4186.29	1033.23	-4062.57	0.00	1914160.41	122421.12	N 36 15 14.39	W 107 31 50.16
	9400.00	91.59	272.10	5536.79	4284.97	1036.89	-4162.46	0.00	1914165.38	122321.28	N 36 15 14.42	W 107 31 51.38
	9500.00	91.59	272.10	5534.02	4383.64	1040.55	-4262.35	0.00	1914170.34	122221.43	N 36 15 14.46	W 107 31 52.60
	9600.00	91.59	272.10	5531.24	4482.31	1044.21	-4362.25	0.00	1914175.31	122121.59	N 36 15 14.50	W 107 31 53.81
	9700.00	91.59	272.10	5528.47	4580.99	1047.87	-4462.14	0.00	1914180.27	122021.75	N 36 15 14.53	W 107 31 55.03
	9800.00	91.59	272.10	5525.70	4679.66	1051.53	-4562.04	0.00	1914185.24	121921.90	N 36 15 14.57	W 107 31 56.25
	9900.00	91.59	272.10	5522.93	4778.33	1055.19	-4661.93	0.00	1914190.20	121822.06	N 36 15 14.60	W 107 31 57.47
	10000.00	91.59	272.10	5520.15	4877.01	1058.85	-4761.83	0.00	1914195.17	121722.21	N 36 15 14.64	W 107 31 58.69
	10100.00	91.59	272.10	5517.38	4975.68	1062.51	-4861.72	0.00	1914200.14	121622.37	N 36 15 14.68	W 107 31 59.91
	10200.00	91.59	272.10	5514.61	5074.35	1066.17	-4961.62	0.00	1914205.10	121522.53	N 36 15 14.71	W 107 32 1.13
	10300.00	91.59	272.10	5511.84	5173.03	1069.83	-5061.51	0.00	1914210.07	121422.68	N 36 15 14.75	W 107 32 2.35
	10400.00	91.59	272.10	5509.07	5271.70	1073.49	-5161.41	0.00	1914215.04	121322.84	N 36 15 14.78	W 107 32 3.57
	10500.00	91.59	272.10	5506.29	5370.37	1077.15	-5261.30	0.00	1914220.00	121222.99	N 36 15 14.82	W 107 32 4.79
	10600.00	91.59	272.10	5503.52	5469.05	1080.81	-5361.19	0.00	1914224.97	121123.15	N 36 15 14.86	W 107 32 6.01
Chaco 306-06L #239H PBHL/TD	10654.91	91.59	272.10	5502.00	5523.23	1082.82	-5416.05	0.00	1914227.70	121068.32	N 36 15 14.88	W 107 32 6.68

Survey Type: Def Plan

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

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)		Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	14.000		1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Hole / Chaco 306-06L #239H R1 mdv 11Nov13
	14.000	10654.915		1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Chaco 306-06L #239H R1 mdv 11Nov13

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 2306-06L Numbers (Nos.) 178H (178H) and 239H (239H) Applications for Permit to Drill (APDs), related to Onshore Oil and Gas Order No. 1. The proposed 178H and 239H wells will be twinned with the Chaco 2306-19E No. 179H (179H) well.

This SUPO also serves as a revision to the original 179H SUPO, which was submitted as part of the 179H APD package. An APD has been issued for the 179H (APD No. 30-039-31190). The 179H well pad and access road have been constructed, but the 179H well has not been drilled. Because of the changes necessary to the 179H project as a result of the 178H/179H/239H twin, a revised 179H SUPO was required by the BLM-FFO.

An onsite meeting for the 179H project was held on December 18, 2012. An onsite meeting for the 178H project was held on September 5, 2013. The addition of the 239H twin did not require a new onsite 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 were attached to the 179H APD or are attached to the 178H or 239H APDs.

2. PROJECT LOCATION AND EXISTING ROADS

The 178H/179H/239H well pad is located approximately 52 road miles south-southeast of the town of Bloomfield, New Mexico. To access the location, head south from the United States (U.S.) Highway 550-U.S. Highway 64 intersection for approximately 48.9 miles, turn left onto County Road 378 for approximately 2.5 miles, and turn right to follow an unnamed, existing road for approximately 0.4 mile until reaching the 808-foot-long 179H access road. The access route from the U.S. Highway 550-County Road 378 intersection is depicted on Figure 1 (Appendix B) and on the construction plats provided in the APD permit packages.

For existing County Roads or roads that are considered collector roads, WPX will defer to the county or Roads Committee, when formed, for maintenance determinations. During the onsite meetings, WPX was not allocated existing roads for upgrading or maintenance. WPX will upgrade existing non-County Roads leading to the project site, if required by the BLM-FFO. The road(s) will be upgraded following *The Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development* (*Gold Book*) and BLM Handbook 9113.

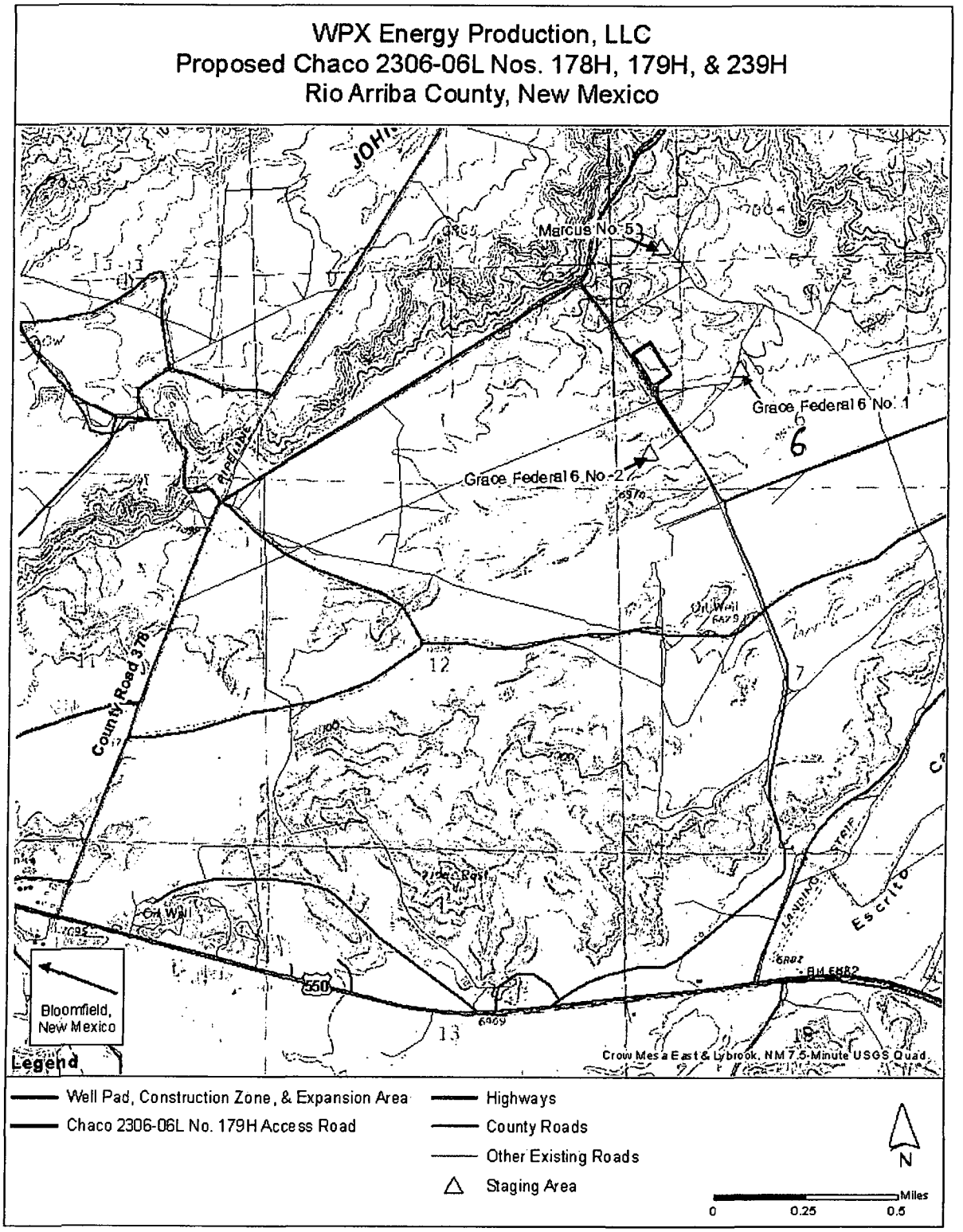
3. NEW OR RECONSTRUCTED ACCESS ROADS

An 808-foot-long access road was previously permitted for the 179H project; this road has been constructed. Therefore, no new roads will be constructed as part of the proposed project.

If the 179H well is plugged before the 178H or 239H wells, WPX will continue to operate and maintain the 179H access road, as described in the 179H SUPO. No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment. If equipment creates ruts deeper than 6 inches, the soil is deemed too wet for construction or maintenance.

BMPs for dust abatement and erosion control will be utilized along the 179H access road to reduce fugitive dust throughout the life of the project. Water application, using a rear-spraying truck or other suitable means, will be the primary method of dust suppression along the access road. Any additional erosion-control practices will include the BLM-standard BMPs found in the *Gold Book* and the BMPs

Figure 1. Location of Staging Areas and Access to Project Area



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