

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: 1/23/14

Well information:

Operator WPX, Well Name and Number Chaco 2307-13L 238H

API# 30-039-31213, 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


NMOCD Approved by Signature

2-13-2014 ca
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JAN 23 2014

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

Farmington Field Office

Bureau of Land Management

5. Lease Serial No.

NMSF-078360

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

Chaco 2307-13L #238H

9. API Well No.

30-039-31213

10. Field and Pool, or Exploratory

Lybrook Gallup

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

BHL Section 14 T23N R7W
SHL Section 13, T23N, R7W

12. County or Parish

Rio Arriba County

13. State

NM

1a. Type of Work: ☒ DRILL☐ REENTER1b. 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 1543' FSL & 121' FWL, sec 13, T23N, R7W

At proposed prod. zone 2485' FNL & 230' FWL, sec 14, T23N, R7W

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

approximately 2 miles southeast of Lybrook, New Mexico

15. Distance from proposed*

location to nearest
property or lease line, ft.

(Also to nearest drig. unit line, if any) 121'

16. No. of Acres in lease

2565.24

17. Spacing Unit dedicated to this well

160 acres

RCVD FEB 10 '14

18. Distance from proposed location*

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

40'

19. Proposed Depth

10,692' MD / 5,520' TVD

20. BLM/BIA Bond No. on file

UTB000178

OIL CONS. DIV.

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

7046' GR

22. Approximate date work will start*

April 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

01/23/2014

Title

Regulatory Specialist

Approved by (Signature)

D. M. Mauter, Jr.
AFM

Name (Printed/Typed)

Office

FFO

Date

2/7/14

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 Lybrook Gallup formation at the above described location in accordance with the attached drilling and
surface use plans.

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

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

This well shares this pad with The Chaco #174H and #175H. No additional disturbance or access road is needed.

DRILLING OPERATIONS
AUTHORIZED ARE SUBJECT TO
COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"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 LANDSThis action is subject to technical
and procedural review pursuant to
43 CFR 3165.3 and appeal
pursuant to 43 CFR 3165.4NMCCD
2

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 23rd day of January, 2014.

Name Larry Higgins

Position Title Regulatory Specialist

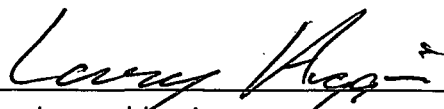
Address P.O. Box 640, Aztec, NM 87410

Telephone (505) 333-1808

Field representative (if not above signatory) _____

E-mail larry.higgins@wpxenergy.com

Date: 01/23/14



Larry Higgins
Regulatory Spec.
WPX Energy Production, LLC

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

Submit one copy to
Appropriate District Office

RECOMMENDED REPORT
RECEIVED

JAN 23 2014

WELL LOCATION AND ACREAGE DEDICATION PLAT Farmington Field Office

*API Number 30-039-31213		*Pool Code 42289	*Pool Name LYBROOK GALLUP	Bureau of Land Management
*Property Code 40069	*Property Name CHACO 2307-13L			*Well Number 238H
*OGARD No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC			*Elevation 7046'

10 Surface Location

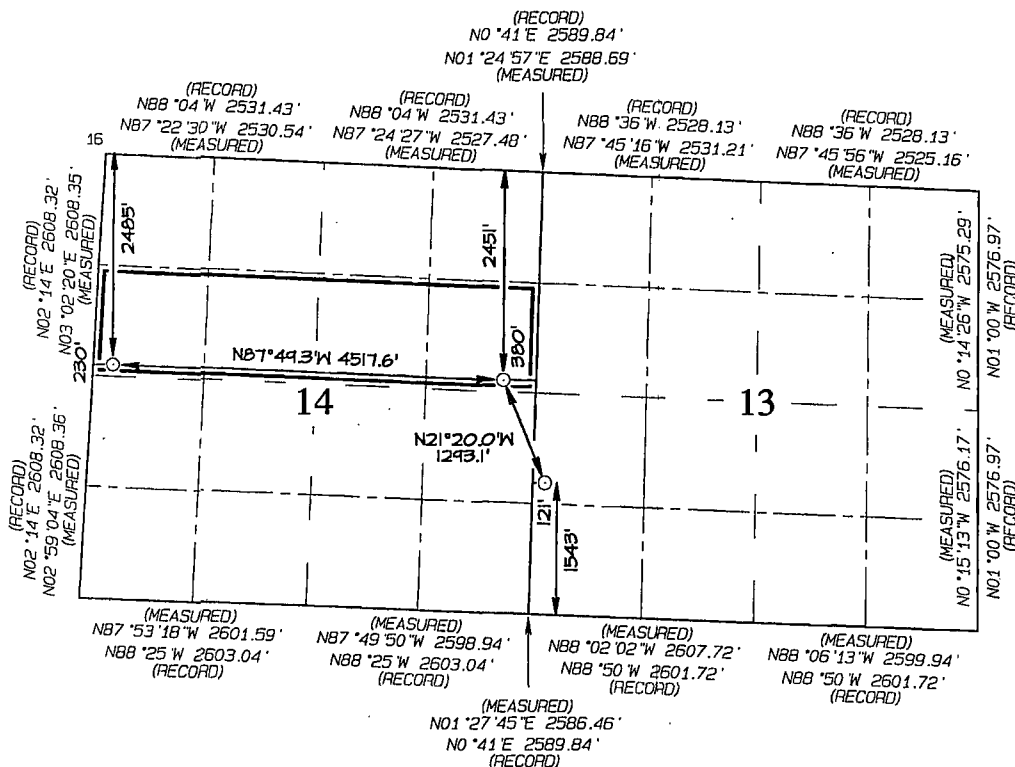
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	13	23N	7W		1543	SOUTH	121	WEST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	14	23N	7W		2485	NORTH	230	WEST	RIO ARRIBA

12 Dedicated Acres	160.0 Acres S/2 N/2 - Section 14	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



END-OF-LATERAL
2485' FNL 230' FWL
SECTION 14, T23N, R7W
LAT: 36.22631°N
LONG: 107.55201°W
DATUM: NAD1927

LAT: 36.22633 °N
LONG: 107.55261 °W
DATUM: NAD1983

POINT-OF-ENTRY
2451' FNL 380' FEL
SECTION 14, T23N, R7W
LAT: 36.22501°N
LONG: 107.53670°W
DATUM: NAD1927

LAT: 36.22602 °N
LONG: 107.53730 °W
DATUM: NAD1983

SURFACE LOCATION
1543' FSL 121' FWL
SECTION 13, T23N, R7W
LAT: 36.22271°N
LONG: 107.53505°W
DATUM: NAD1927

LAT: 36.22273 °N
LONG: 107.53565 °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 an agreement 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 1/23/14
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: JANUARY 14, 2014
Date of Survey: JULY 5, 2012

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

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"	6,174'	7	23#	K-55
Prod. Liner	6.125"	6,024' - 10,692'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 6,024'	4-1/2"	11.6#	N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
3. PRODUCTION LINER: Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + (2) RSI (Sliding Sleeves) positioned inside 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).
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 +/- 5,724 ft.

IV. COMPLETION

A. CBL

1. Run CCL for perforating.

B. PRESSURE TEST

1. Pressure test 4-1/2" casing to 4500 psi max, hold at 1500 psi for 30 minutes. 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 (~6,000' 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 6,174ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 6,024 ft. (MD) +/- 78 degree angle. TOC: +/- 5,724 ft. (MD).

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

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

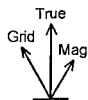
The Drilling Rig will be rigged down at this point and Completion operations will begin. After Stimulation and Testing operations are complete the 4-1/2" tie-back string will be removed from the well.

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

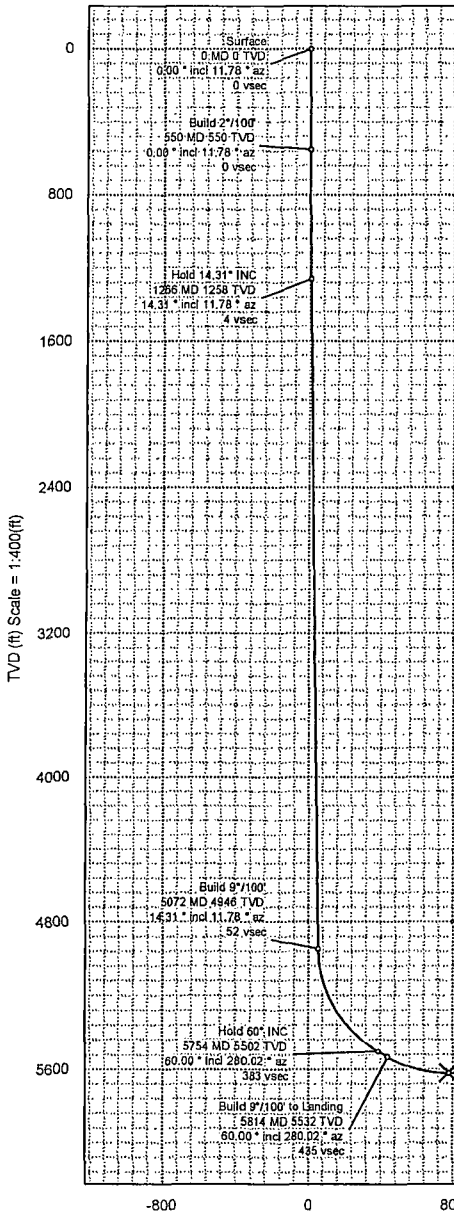
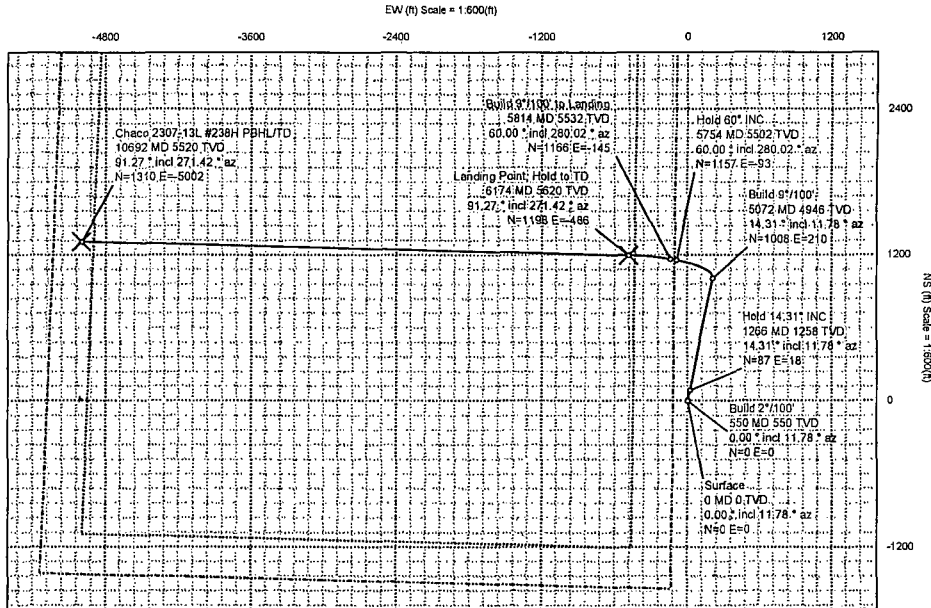
Borehole:	Well:	Field:	Structure:
Original Hole	Chaco 2307-13L #238H	NM, Rio Arriba (NAD 27 CZ)	Sec 13-23N-7W

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: BGGM 2013 Dip: 63.006° Date: 08-Jan-2014	NAD27 New Mexico State Plane, Central Zone, US Feet	Slot: Chaco 2307-13L #238H
MagDec: 9.467° FS: 50148.332m Gravity FS: 998.485mgm (9.80665 Based)	Lat: N 36 13 21.77 Northing: 1902790.054 Grid Conv: -0.7595°	TVD Ref: RKB(7060ft above MSL)
	Lon: W 107 32 6.17 Easting: 120958.576RU S Scale Fact: 1.00006441	Plan: Chaco 2307-13L #238H R0 mdv 08Jan14

Proposal



True North
Tot Corr (M->T 9.467°)
Mag Dec (9.467°)
Grid Conv (-0.759°)



Surface Location									
Northing: 1902790.054			Easting: 120958.576		Latitude: N 36 13 21.77		Longitude: W 107 32 6.17		
					VSec Azimuth: 284.674				
Target Description		Grid Coord						Local Coord	
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)	
Chaco 2307-13L #238H PBHL/TD	N 36 13 34.72	W 107 33 7.22	1904166.22	115973.81	5520.00	5170.92	1309.89	-5002.26	
Chaco 2307-13L #238H PP	N 36 13 33.62	W 107 32 12.10	1903994.60	120488.13	5620.00	773.99	1198.13	-486.34	
Chaco 2307-13L #238H Section Line	N 36 13 21.77	W 107 32 6.17	1902790.05	120958.58	7060.00	0.00	0.00	0.00	
Chaco 2307-13L #238H 330' Setback	N 36 13 21.77	W 107 32 6.17	1902790.05	120958.58	7060.00	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	11.78	0.00	0.00	0.00	0.00		
Build 2°/100'	550.00	0.00	11.78	550.00	0.00	0.00	0.00	0.00	
Hold 14.31° INC	1265.64	14.31	11.78	1258.22	4.49	87.05	18.15	2.00	
Build 9°/100'	5071.55	14.31	11.78	4946.00	52.02	1008.12	210.21	0.00	
Hold 60° INC	5754.34	60.00	280.02	5501.83	383.36	1156.71	-93.39	9.00	
Build 9°/100' to Landing	5814.34	60.00	280.02	5531.83	435.15	1165.75	-144.56	0.00	
Landing Point, Hold to TD	6173.55	91.27	271.42	5620.00	773.99	1198.12	-486.34	9.00	
Chaco 2307-13L #238H PBHL/TD	10691.95	91.27	271.42	5520.00	5170.92	1309.89	-5002.26	0.00	

Chaco 2307-13L #238H R0 mdv 08Jan14 Proposal Geodetic Report

(Def Plan)

Report Date:	January 08, 2014 - 03:18 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	WPX Energy	Vertical Section Azimuth:	284.674 ° (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 2307-13L #238H) / Chaco 2307-13L #238H	TVD Reference Datum:	RKB
Well:	Chaco 2307-13L #238H	TVD Reference Elevation:	7060.000 ft above MSL
Borehole:	Original Hole	Seabed / Ground Elevation:	7046.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	9.467 °
Survey Name:	Chaco 2307-13L #238H R0 mdv 08Jan14	Total Gravity Field Strength:	998.4852mgn (9.8065 Based)
Survey Date:	January 08, 2014	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	108.098 ° / 6301.005 ft / 6.113 / 1.121	Total Magnetic Field Strength:	50148.332 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Central Zone, US Feet	Magnetic Dip Angle:	63.006 °
Location Lat / Long:	N 36° 13' 21.77270", W 107° 32' 6.16860"	Declination Date:	January 08, 2014
Location Grid N/E Y/X:	N 1902790.054 ftUS, E 120958.576 ftUS	Magnetic Declination Model:	BGGM 2013
CRS Grid Convergence Angle:	-0.7595 °	North Reference:	True North
Grid Scale Factor:	1.00006441	Grid Convergence Used:	0.0000 °
Version / Patch:	2.7.1043.0	Total Corr Mag North->True North:	9.4671 °
		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	11.78	0.00	0.00	0.00	0.00	N/A	1902790.05	120958.58	N 36 13 21.77	W 107 32 6.17	
	100.00	0.00	11.78	100.00	0.00	0.00	0.00	0.00	1902790.05	120958.58	N 36 13 21.77	W 107 32 6.17	
	200.00	0.00	11.78	200.00	0.00	0.00	0.00	0.00	1902790.05	120958.58	N 36 13 21.77	W 107 32 6.17	
	300.00	0.00	11.78	300.00	0.00	0.00	0.00	0.00	1902790.05	120958.58	N 36 13 21.77	W 107 32 6.17	
	400.00	0.00	11.78	400.00	0.00	0.00	0.00	0.00	1902790.05	120958.58	N 36 13 21.77	W 107 32 6.17	
	500.00	0.00	11.78	500.00	0.00	0.00	0.00	0.00	1902790.05	120958.58	N 36 13 21.77	W 107 32 6.17	
Build 2"/100'	550.00	0.00	11.78	550.00	0.00	0.00	0.00	0.00	1902790.05	120958.58	N 36 13 21.77	W 107 32 6.17	
	600.00	1.00	11.78	600.00	0.02	0.43	0.09	2.00	1902790.48	120958.67	N 36 13 21.77	W 107 32 6.17	
	700.00	3.00	11.78	699.93	0.20	3.84	0.80	2.00	1902793.89	120958.67	N 36 13 21.76	W 107 32 6.17	
	800.00	5.00	11.78	799.68	0.55	10.67	2.23	2.00	1902793.89	120959.43	N 36 13 21.81	W 107 32 6.16	
	900.00	7.00	11.78	899.13	1.08	20.90	4.36	2.00	1902800.70	120960.94	N 36 13 21.88	W 107 32 6.14	
	1000.00	9.00	11.78	998.15	1.78	34.53	7.20	2.00	1902810.90	120963.21	N 36 13 21.98	W 107 32 6.12	
	1100.00	11.00	11.78	1096.63	2.66	51.53	10.74	2.00	1902824.49	120966.23	N 36 13 22.11	W 107 32 6.08	
	1200.00	13.00	11.78	1194.44	3.71	71.88	14.99	2.00	1902841.44	120970.00	N 36 13 22.28	W 107 32 6.04	
	1265.64	14.31	11.78	1258.22	4.49	87.05	18.15	2.00	1902861.73	120974.52	N 36 13 22.48	W 107 32 5.99	
	1300.00	14.31	11.78	1291.51	4.92	95.36	19.88	0.00	1902876.86	120977.88	N 36 13 22.63	W 107 32 5.95	
Hold 14.31° INC	1400.00	14.31	11.78	1388.41	6.17	119.57	24.93	0.00	1902885.15	120979.72	N 36 13 22.72	W 107 32 5.93	
	1500.00	14.31	11.78	1485.31	7.42	143.77	29.98	0.00	1902909.29	120985.09	N 36 13 22.96	W 107 32 5.88	
	1600.00	14.31	11.78	1582.20	8.67	167.97	35.02	0.00	1902933.42	120990.48	N 36 13 23.19	W 107 32 5.80	
	1700.00	14.31	11.78	1679.10	9.92	187.97	40.07	0.00	1902957.55	120995.82	N 36 13 23.43	W 107 32 5.74	
	1800.00	14.31	11.78	1775.99	11.17	218.37	45.12	0.00	1902981.69	121001.19	N 36 13 23.67	W 107 32 5.68	
	1900.00	14.31	11.78	1872.89	12.41	240.57	50.16	0.00	1903005.82	121006.56	N 36 13 23.91	W 107 32 5.62	
	2000.00	14.31	11.78	1969.79	13.66	264.77	55.21	0.00	1903029.95	121011.93	N 36 13 24.15	W 107 32 5.56	
	2100.00	14.31	11.78	2066.68	14.91	288.97	60.26	0.00	1903054.09	121017.29	N 36 13 24.39	W 107 32 5.49	
	2200.00	14.31	11.78	2163.58	16.16	313.17	65.30	0.00	1903078.22	121022.66	N 36 13 24.63	W 107 32 5.43	
	2300.00	14.31	11.78	2260.47	17.41	337.38	70.35	0.00	1903102.35	121028.03	N 36 13 24.87	W 107 32 5.37	
	2400.00	14.31	11.78	2357.37	18.66	361.58	75.39	0.00	1903126.49	121033.39	N 36 13 25.11	W 107 32 5.31	
	2500.00	14.31	11.78	2454.27	19.91	385.78	80.44	0.00	1903150.62	121038.76	N 36 13 25.35	W 107 32 5.25	
	2600.00	14.31	11.78	2551.16	21.16	409.98	85.49	0.00	1903174.76	121044.13	N 36 13 25.59	W 107 32 5.19	
	2700.00	14.31	11.78	2648.06	22.41	434.18	90.53	0.00	1903198.89	121049.49	N 36 13 25.83	W 107 32 5.13	
	2800.00	14.31	11.78	2744.95	23.65	458.38	95.58	0.00	1903223.02	121054.86	N 36 13 26.07	W 107 32 5.06	
	2900.00	14.31	11.78	2841.85	24.90	482.58	100.63	0.00	1903247.16	121060.23	N 36 13 26.31	W 107 32 5.00	
	3000.00	14.31	11.78	2938.75	26.15	506.78	105.67	0.00	1903271.29	121065.60	N 36 13 26.54	W 107 32 4.94	
	3100.00	14.31	11.78	3035.64	27.40	530.98	110.72	0.00	1903295.42	121070.96	N 36 13 26.78	W 107 32 4.88	
	3200.00	14.31	11.78	3132.54	28.65	555.18	115.76	0.00	1903319.56	121076.33	N 36 13 27.02	W 107 32 4.82	
	3300.00	14.31	11.78	3229.43	29.90	579.39	120.81	0.00	1903343.69	121081.70	N 36 13 27.26	W 107 32 4.76	
	3400.00	14.31	11.78	3326.33	31.15	603.59	125.86	0.00	1903367.82	121087.06	N 36 13 27.50	W 107 32 4.69	
	3500.00	14.31	11.78	3423.23	32.40	627.79	130.90	0.00	1903391.96	121092.43	N 36 13 27.74	W 107 32 4.63	
	3600.00	14.31	11.78	3520.12	33.65	651.99	135.95	0.00	1903367.82	121097.80	N 36 13 27.98	W 107 32 4.57	
	3700.00	14.31	11.78	3617.02	34.90	676.19	141.00	0.00	1903440.22	121103.16	N 36 13 28.22	W 107 32 4.51	
	3800.00	14.31	11.78	3713.91	36.14	700.39	146.04	0.00	1903464.36	121108.53	N 36 13 28.46	W 107 32 4.45	
	3900.00	14.31	11.78	3810.81	37.39	724.59	151.09	0.00	1903488.49	121113.90	N 36 13 28.70	W 107 32 4.39	
	4000.00	14.31	11.78	3907.71	38.64	748.79	156.13	0.00	1903464.36	121119.26	N 36 13 28.94	W 107 32 4.32	
	4100.00	14.31	11.78	4004.60	39.89	772.99	161.18	0.00	1903536.76	121124.63	N 36 13 29.18	W 107 32 4.26	
	4200.00	14.31	11.78	4101.50	41.14	797.19	166.23	0.00	1903560.89	121129.99	N 36 13 29.42	W 107 32 4.20	
	4300.00	14.31	11.78	4198.40	42.39	821.40	171.27	0.00	1903585.03	121135.37	N 36 13 29.66	W 107 32 4.14	
	4400.00	14.31	11.78	4295.29	43.64	845.60	176.32	0.00	1903609.16	121140.73	N 36 13 29.90	W 107 32 4.08	
	4500.00	14.31	11.78	4392.19	44.89	869.80	181.37	0.00	1903633.29	121146.10	N 36 13 30.13	W 107 32 4.02	
	4600.00	14.31	11.78	4489.08	46.14	894.00	186.41	0.00	1903657.43	121151.47	N 36 13 30.37	W 107 32 3.96	
	4700.00	14.31	11.78	4585.98	47.38	918.20	191.46	0.00	1903681.56	121156.83	N 36 13 30.61	W 107 32 3.89	
	4800.00	14.31	11.78	4682.88	48.63	942.40	196.50	0.00	1903705.69	121162.20	N 36 13 30.85	W 107 32 3.83	
	4900.00	14.31	11.78	4779.77	49.88	966.60	201.55	0.00	1903729.83	121167.57	N 36 13 31.09	W 107 32 3.77	
	5000.00	14.31	11.78	4876.67	51.13	990.80	206.60	0.00	1903753.96	121172.93	N 36 13 31.33	W 107 32 3.71	
	Build 9"/100'	5071.55	14.31	11.78	4876.67	51.13	990.80	206.60	0.00	1903778.09	121178.30	N 36 13 31.57	W 107 32 3.65
		5100.00	14.10	1.37	4946.00	52.02	1008.12	210.21	-0.00	1903778.09	121178.30	N 36 13 31.57	W 107 32 3.65
		5071.55	14.31	11.78	4946.00	52.02	1008.12	210.21	-0.00	1903795.36	121182.14	N 36 13 31.74	W 107 32 3.60
5100.00		14.10	1.37	4973.58	53.00	1015.03	211.01	9.00	1903795.36	121182.14	N 36 13 31.74	W 107 32 3.60	
5200.00		16.72	328.43	5070.16	66.22	1039.51	203.75	9.00	1903802.26	121183.03	N 36 13 31.81	W 107 32 3.59	
5300.00		22.78	308.42	5164.34	94.39	1063.84	181.01	9.00	1903802.26	121183.03	N 36 13 31.81	W 107 32 3.59	
5400.00		30.28	297.16	5253.80	136.81	1087.43	143.33	9.00	1903826.84	121176.10	N 36 13 32.05	W 107 32 3.68	
5500.00		38.38	290.17	5336.35	192.44	1109.69	91.65	9.00	1903851.47	121153.68	N 36 13 32.29	W 107 32 3.96	
5600.00		46.77	285.34	5409.94	259.91	1130.07	27.24	9.00	1903875.56	121116.32	N 36 13 32.53	W 107 32 4.42	
5700.00		55.32	281.69	5472.76	337.56	1148.08	-48.31	9.00	1903898.50	121116.32	N 36 13 32.75	W 107 32 5.05	
Hold 60° INC	5800.00	60.00	280.02	5501.83	383.36	1156.71	-93.39	9.00	1903919.74	121000.80	N 36 13 32.95	W 107 32 5.84	
	5754.34	60.00	280.02	5501.83	383.36	1156.71	-93.39	9.00	1903938.74	120925.49	N 36 13 33.13	W 107 32 6.76	
	5800.00	60.00	280.02	5524.65	422.77	1163.59	-132.32	0.00	1903947.97	120880.52	N 36 13 33.21	W 107 32 7.31	
				5524.65	422.77	1163.59	-132.32	0.00	1903955.36	120841.68	N 36 13 33.28	W 107 32 7.78	
Build 9"/100' to Landing	5814.34	60.00	280.02	5531.83	435.15	1165.75	-144.56	0.00	1903957.69	120829.48	N 36 13 33.30	W 107 32 7.93	
	5900.00	67.42	277.69	5569.74	511.48	1177.51	-220.39	9.00	1903957.69	120829.48	N 36 13 33.30	W 107 32 7.93	
	6000.00	76.12	275.27	5600.99	605.39	1188.17	-314.67	9.00	1903970.46	120753.80	N 36 13 33.42	W 107 32 8.86	
	6100.00	84.85	273.03	5617.51	702.25	1195.28	-412.93	9.00	1903982.37	120659.67	N 36 13 33.52	W 107 32 10.01	
				5617.51	702.25	1195.28	-412.93	9.00	1903990.77	120561.50	N 36 13 33.59	W 107 32 11.21	
Landing Point, Hold to TD	6173.55	91.27	271.42	5620.00	773.99	1198.12	-486.34	9.00	1903997.46	120488.13	N 36 13 33.62	W 107 32 12.10	
	6200.00	91.27	271.42	5619.41	799.73	1198.78	-512.78	0.00	1903994.59	120488.13	N 36 13 33.62	W 107 32 12.10	
	6300.00	91.27	271.42	5617.20	897.04	1201.26	-612.73	0.00	1903995.60	120461.70	N 36 13 33.63	W 107 32 12.43	
	6400.00	91.27	271.42	5614.98	994.35	1203.							

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 ° ° °)
	6900.00	91.27	271.42	5603.90	1480.92	1216.12	-1212.39	0.00	1904022.21	119762.33	N 36 13 33.80	W 107 32 20.97
	7000.00	91.27	271.42	5601.69	1578.23	1218.59	-1312.34	0.00	1904026.01	119662.42	N 36 13 33.82	W 107 32 22.19
	7100.00	91.27	271.42	5599.47	1675.54	1221.07	-1412.28	0.00	1904029.81	119562.51	N 36 13 33.85	W 107 32 23.40
	7200.00	91.27	271.42	5597.26	1772.85	1223.55	-1512.23	0.00	1904033.61	119462.60	N 36 13 33.87	W 107 32 24.62
	7300.00	91.27	271.42	5595.04	1870.16	1226.02	-1612.17	0.00	1904037.41	119362.69	N 36 13 33.90	W 107 32 25.84
	7400.00	91.27	271.42	5592.83	1967.48	1228.50	-1712.12	0.00	1904041.21	119262.78	N 36 13 33.92	W 107 32 27.06
	7500.00	91.27	271.42	5590.61	2064.79	1230.97	-1812.06	0.00	1904045.01	119162.87	N 36 13 33.95	W 107 32 28.28
	7600.00	91.27	271.42	5588.40	2162.10	1233.45	-1912.01	0.00	1904048.81	119062.97	N 36 13 33.97	W 107 32 29.50
	7700.00	91.27	271.42	5586.18	2259.41	1235.92	-2011.95	0.00	1904052.61	118963.08	N 36 13 33.99	W 107 32 30.72
	7800.00	91.27	271.42	5583.97	2356.72	1238.40	-2111.90	0.00	1904056.41	118863.15	N 36 13 34.02	W 107 32 31.94
	7900.00	91.27	271.42	5581.75	2454.04	1240.87	-2211.84	0.00	1904060.21	118763.24	N 36 13 34.04	W 107 32 33.16
	8000.00	91.27	271.42	5579.54	2551.35	1243.35	-2311.79	0.00	1904064.01	118663.33	N 36 13 34.07	W 107 32 34.38
	8100.00	91.27	271.42	5577.33	2648.68	1245.82	-2411.73	0.00	1904067.81	118563.42	N 36 13 34.09	W 107 32 35.60
	8200.00	91.27	271.42	5575.11	2745.97	1248.29	-2511.68	0.00	1904071.61	118463.51	N 36 13 34.12	W 107 32 36.82
	8300.00	91.27	271.42	5572.90	2843.28	1250.77	-2611.62	0.00	1904075.41	118363.60	N 36 13 34.14	W 107 32 38.04
	8400.00	91.27	271.42	5570.69	2940.59	1253.24	-2711.57	0.00	1904079.21	118263.69	N 36 13 34.16	W 107 32 39.26
	8500.00	91.27	271.42	5568.47	3037.91	1255.72	-2811.51	0.00	1904083.01	118163.78	N 36 13 34.19	W 107 32 40.48
	8600.00	91.27	271.42	5566.26	3135.22	1258.19	-2911.46	0.00	1904086.80	118063.87	N 36 13 34.21	W 107 32 41.70
	8700.00	91.27	271.42	5564.05	3232.53	1260.66	-3011.40	0.00	1904090.60	117963.96	N 36 13 34.24	W 107 32 42.92
	8800.00	91.27	271.42	5561.84	3329.84	1263.14	-3111.35	0.00	1904094.40	117864.05	N 36 13 34.26	W 107 32 44.14
	8900.00	91.27	271.42	5559.62	3427.15	1265.61	-3211.29	0.00	1904098.20	117764.14	N 36 13 34.29	W 107 32 45.36
	9000.00	91.27	271.42	5557.41	3524.46	1268.08	-3311.24	0.00	1904101.99	117664.23	N 36 13 34.31	W 107 32 46.58
	9100.00	91.27	271.42	5555.20	3621.77	1270.55	-3411.18	0.00	1904105.79	117564.32	N 36 13 34.34	W 107 32 47.80
	9200.00	91.27	271.42	5552.99	3719.09	1273.03	-3511.13	0.00	1904109.59	117464.41	N 36 13 34.36	W 107 32 49.02
	9300.00	91.27	271.42	5550.77	3816.40	1275.50	-3611.07	0.00	1904113.39	117364.50	N 36 13 34.38	W 107 32 50.24
	9400.00	91.27	271.42	5548.56	3913.71	1277.97	-3711.02	0.00	1904117.18	117264.59	N 36 13 34.41	W 107 32 51.46
	9500.00	91.27	271.42	5546.35	4011.02	1280.44	-3810.96	0.00	1904120.98	117164.68	N 36 13 34.43	W 107 32 52.68
	9600.00	91.27	271.42	5544.14	4108.33	1282.91	-3910.91	0.00	1904124.78	117064.77	N 36 13 34.46	W 107 32 53.90
	9700.00	91.27	271.42	5541.93	4205.64	1285.39	-4010.85	0.00	1904128.57	116964.86	N 36 13 34.48	W 107 32 55.12
	9800.00	91.27	271.42	5539.72	4302.95	1287.86	-4110.80	0.00	1904132.37	116864.95	N 36 13 34.51	W 107 32 56.34
	9900.00	91.27	271.42	5537.51	4400.26	1290.33	-4210.74	0.00	1904136.16	116765.04	N 36 13 34.53	W 107 32 57.56
	10000.00	91.27	271.42	5535.29	4497.57	1292.80	-4310.69	0.00	1904139.96	116665.13	N 36 13 34.55	W 107 32 58.78
	10100.00	91.27	271.42	5533.08	4594.89	1295.27	-4410.63	0.00	1904143.76	116565.22	N 36 13 34.58	W 107 33 0.00
	10200.00	91.27	271.42	5530.87	4692.20	1297.74	-4510.58	0.00	1904147.55	116465.32	N 36 13 34.60	W 107 33 1.22
	10300.00	91.27	271.42	5528.66	4789.51	1300.21	-4610.52	0.00	1904151.35	116365.41	N 36 13 34.63	W 107 33 2.44
	10400.00	91.27	271.42	5526.45	4886.82	1302.68	-4710.47	0.00	1904155.14	116265.50	N 36 13 34.65	W 107 33 3.66
	10500.00	91.27	271.42	5524.24	4984.13	1305.15	-4810.41	0.00	1904158.94	116165.59	N 36 13 34.68	W 107 33 4.88
	10600.00	91.27	271.42	5522.03	5081.44	1307.62	-4910.36	0.00	1904162.73	116065.68	N 36 13 34.70	W 107 33 6.10
Chaco 2307-13L #238H PBHL/TD	10691.95	91.27	271.42	5520.00	5170.92	1309.89	-5002.26	0.00	1904166.22	115973.81	N 36 13 34.72	W 107 33 7.22

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 2307-13L #238H R0 mdv 08Jan14
	1	14.000	10691.950	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Chaco 2307-13L #238H R0 mdv 08Jan14

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 2307-13L No. 238H (238H) Application for Permit to Drill (APD). This SUPO is provided per Onshore Oil and Gas Order No. 1.

The 238H oil and natural gas well will be twinned with the Chaco 2307-13L Nos. 174H and 175H (174H/175H) wells. The 174H/175H project has been permitted (174H American Petroleum Institute [API] No. 30-039-31197 and 175H API No.30-039-31192), and the well pad and access road have been constructed. The 175H well has been drilled. As of January 2014, the 174H well has not been drilled. The permitted 174H/175H project area (i.e., well pad and access road) will not be expanded or modified to accommodate the addition of the 238H well. Therefore, there will be no new surface impacts resulting from the addition of the 238H well to the permitted 174H/175H project area. As a result, the “project” in this SUPO will refer to the 174H/175H and 238H as a collective project.

The 174H/175H wells and associated well pad and access road were permitted by APDs (API numbers are provided above). The 238H well will be permitted by an approved APD. If one potential, previously disturbed staging area associated with the permitted 174H/175H project is used for the 238H well, it will be permitted via an existing agreement that WPX has in place with the operator. This SUPO will serve as a revision to the previous 174H/175H SUPO documents.

A pre-disturbance onsite meeting was held for the 175H project on December 18, 2012. A pre-disturbance onsite meeting was held for the 174H/175H twin project on July 31, 2013. A pre-disturbance onsite meeting was not held for the 174H/175H/238H twin project. The BLM, WPX, and an environmental consultant (Nelson Consulting, Inc.) attended the December 2012 and July 2013 pre-disturbance onsite meetings.

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 238H APD or were attached to the 174H/175H 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 50 road miles south-southeast of the town of Bloomfield, New Mexico. To access the project area from the town of Bloomfield, head south from the U.S. Highway 550-U.S. Highway 64 intersection for approximately 49 miles, turn right onto an unnamed road for approximately 1 mile, and turn left to follow an unnamed, existing road for less than 1 mile until reaching the 174H/175H/238H 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 238H APD permit package.

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

Table 1. Legal Land Description for the Proposed Project

Township, Range	Section	Quarter-Quarter	Project Feature
Township 23 North, Range 7 West	13	western ½ southwestern ¼	well pad & construction zone
	14	eastern ½ southeastern ¼	well pad, construction zone, access road, & potential staging area

A depiction of the production facility layout will be deferred until the facility on-site meeting is held with the BLM-FFO. All production equipment will comply with Visual Resource Management requirements. Within 90 days of installation, above-ground structures not subject to safety requirements will be painted Juniper Green to blend with vegetation and reduce visual resource impacts.

7. WATER SUPPLY

As previously stated, the 175H well has been drilled. WPX plans to drill the 174H and 238H wells in 2014.

The 174H and 238H wells will be horizontally drilled, and completion will include well stimulation (hydraulic fracturing). Water for drilling and completion operations will be purchased from San Juan Basin Water Haulers Association. San Juan Basin Water Haulers Association will obtain water from the following two permitted water wells:

- Turtle Mountain: SJ-960-S-3
- Blanco Trading Post: WR711

The water hauler(s) will access the project area via the roads described in Sections 2 (Project Location and Description) and 3 (New or Reconstructed Access Roads).

8. CONSTRUCTION

The well pad and access road have already been constructed. Construction plats are provided in the APD permit packages.

Working areas will be confined to the project areas described in Section 2 (Project Location and Description).

Maintenance activities will cease when soil or road surfaces become saturated to the extent that construction equipment is unable to stay within the project area and/or when activities cause irreparable harm to roads, soils, or streams. 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.

