

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

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

David R. Catanach 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: 10/26/15

Well information;

Operator WPX, Well Name and Number Chaco 2307-069 #913H

API# 30-039-31351, Section 6, Township 23 N/S, Range 7 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 NSL - BHL + lateral @ section line
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charles R.
NMOCD Approved by Signature

2-11-2016
Date KC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

OIL CONS. DIV DIST. 3

DEC 24 2015

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

RECEIVED
BHL
NM 409397
26 2015
Farmingdale Field Office
Bureau of Land Management

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM 023050	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> 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 2307-06G #913H	
3b. Phone No. (include area code) (505) 333-1816		9. API Well No. 30-039-31351	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1,647' FNL & 2,337' FEL, sec 6, T23N, R7W At proposed prod. zone 330' FNL & 330' FWL, sec 1, T23N, R8W		10. Field and Pool, or Exploratory Basin Mancos / Lybrook Gallup	
14. Distance in miles and direction from nearest town or post office* approximately 4.5 miles northwest of Lybrook, New Mexico		11. Sec., T., R., M., or Blk. and Survey or Area SHL: Sec 6, T23N, R7W BHL: Sec 1, T23N, R8W	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1,647'		12. County or Parish Rio Arriba County	
16. No. of Acres in lease 800.48 241.26 acres		13. State NM	
17. Spacing Unit dedicated to this well 400.94 acres - S/2 NW/4 Section 6, T23N, R7W N/2 Section 1, T23N, R8W		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20'	
19. Proposed Depth 13,213' MD / 5,293' TVD		20. BLM/BIA Bond No. on file UTB000178	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,970' GR		22. Approximate date work will start* December 1, 2015	
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 	Name (Printed/Typed) Lacey Granillo	Date 10/26/2015
Title Permit Technician III		
Approved by (Signature) 	Name (Printed/Typed) AFM	Date 12/18/15
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 Basin Mancos / 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 and is on lease and will be twinned with the Chaco 2307-06G #161H and Chaco 2307-06G #274H. This location is on FEE surface and a Surface Use Agreement has been secured.

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

The access road for the Chaco 2307-06G #161H and Chaco 2307-06G #274H will be utilized.

The pipeline for the Chaco 2307-06G #161H and Chaco 2307-06G #274H will be utilized.

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 ACTION DOES NOT RELIEVE THE LESSEE AND 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 PV

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30.039.31351	² Pool Code 97232 / 42289	³ Pool Name BASIN MANCOS / LYBROOK GALLUP
⁴ Property Code	⁵ Property Name CHACO 2307-06G	⁶ Well Number 913H
⁷ OGRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC	⁹ Elevation 6970'

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
G	6	23N	7W		1647	NORTH	2337	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	1	23N	8W	4	330	NORTH	330	WEST	SAN JUAN

¹² Dedicated Acres 400.94	S/2 NW/4 - Sec 6, T23N, R7W N/2 - Sec 1, T23N, R8W	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
330' FNL 330' FNL
SECTION 1, T23N, R8W
LAT: 36.262613°N
LONG: 107.640523°W
DATUM: NAD1927

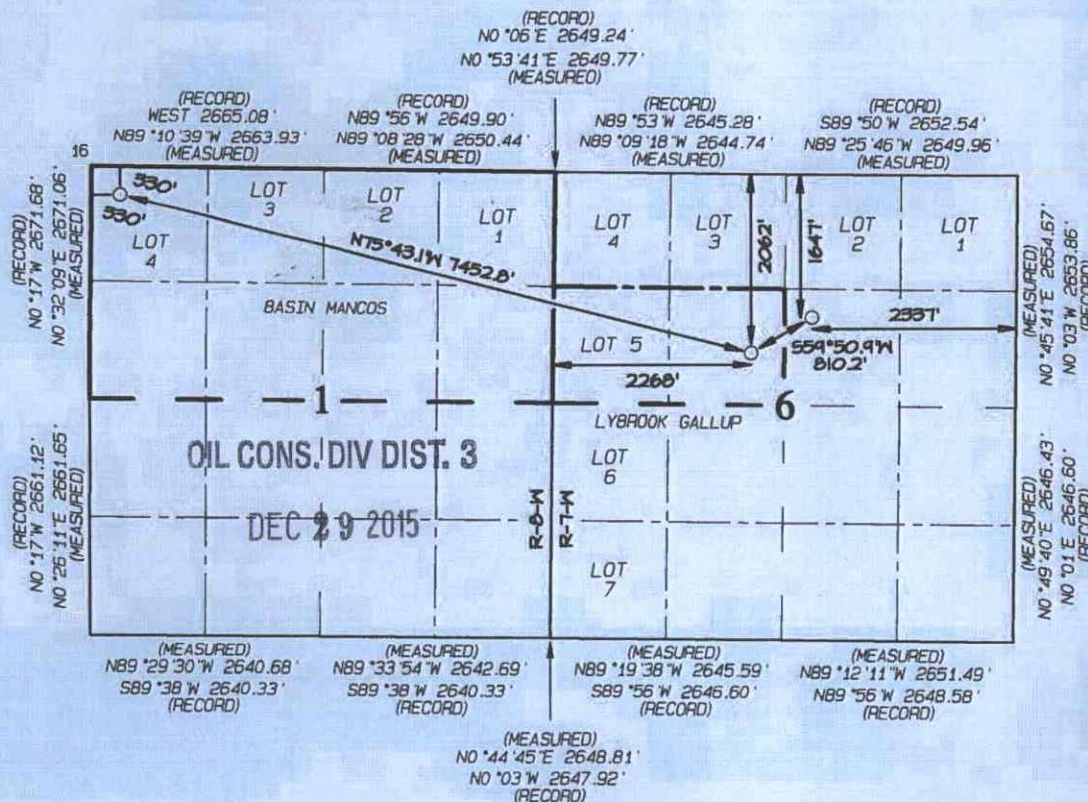
LAT: 36.262625°N
LONG: 107.641133°W
DATUM: NAD1983

POINT-OF-ENTRY
2062' FNL 2268' FNL
SECTION 6, T23N, R7W
LAT: 36.257845°N
LONG: 107.615944°W
DATUM: NAD1927

LAT: 36.257858°N
LONG: 107.615553°W
DATUM: NAD1983

SURFACE LOCATION
1647' FNL 2337' FEL
SECTION 6, T23N, R7W
LAT: 36.258990°N
LONG: 107.613588°W
DATUM: NAD1927

LAT: 36.259003°N
LONG: 107.614196°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: *Marie E. Jaramillo*
Date: 10/26/15
Printed Name: Marie E. Jaramillo
E-mail Address: marie.jaramillo@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: OCTOBER 22, 2015
Date of Survey: JUNE 12, 2015

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

WPX Energy

Operations Plan

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

Date: October 28, 2015 **Field:** BASIN MANCOS/ LYBROOK GALLUP
Well Name: Chaco 2307-06G #913H **Surface:**
SH Location: SWNE Sec 6 23N-07W **Elevation:** 6970' GR
BH Location: NWNW Sec 1 23N-08W **Minerals:**

Measured Depth: 13,213.00

I. GEOLOGY: SURFACE FORMATION - NACIMIENTO

A. FORMATION TOPS (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	1227	1225	POINT LOOKOUT	4299	4266
KIRTLAND	1397	1393	MANCOS	4532	4497
PICTURED CLIFFS	1940	1931	GALLUP	4907	4865
LEWIS	2033	2023	KICKOFF POINT	5,365.43	5,209.71
CHACRA	2306	2293	TOP TARGET	2107	5341
CLIFF HOUSE	3460	3435	LANDING POINT	5,761.50	5,325.00
MENEFEE	3503	3478	BASE TARGET	5,761.50	5,325.00
			TD	13,213.00	5,293.00

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.**

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	5,761.50'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5611.5' - 13,213.00'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5611.5'	4.5"	11.6 LBS	P-110 or equiv	LTC

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 2,500 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 + 1 RSI (Sliding Sleeve) 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.

C. CEMENTING:

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

1. Surface 5 bbl Fresh Water Spacer, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ Bbls). TOC at Surface.
2. Intermediate 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: +/- 700 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: 1001 cu-ft / 178.3 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). WOC 12 hrs. Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (900 sx / 1246 cu-ft / 222 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.
3. PROD. LINER: Spacer #1:10 bbl (56.cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem™ System. Yield 1.36 cuft/sk 13.3 ppg (745 sx /1013 cuft /180 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (745 sx /1013bbls).

I.

COMPLETION

A. **CBL**

Run CCL for perforating

A. **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.

B. **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.

C. **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.

- 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:

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 with a Liner Hanger and pack-off assembly then cemented to top of liner hanger.

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

WPX Energy

T23N R7W

Chaco 2307-06G

Chaco 2307-06G #913H

Wellbore #1

Plan: Design #1 20Oct15 sam

Standard Planning Report

20 October, 2015

WPX
Planning Report

OIL CONS. DIV DIST. 3

DEC 24 2015

Database:	COMPASS	Local Co-ordinate Reference:	Well Chaco 2307-06G #913H
Company:	WPX Energy	TVD Reference:	KB @ 6995.00usft (Aztec 1000)
Project:	T23N R7W	MD Reference:	KB @ 6995.00usft (Aztec 1000)
Site:	Chaco 2307-06G	North Reference:	True
Well:	Chaco 2307-06G #913H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 20Oct15 sam		

Project	T23N R7W		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site		Chaco 2307-06G			
Site Position:		Northing:	1,913,587.46 usft	Latitude:	36.258989
From:	Lat/Long	Easting:	564,766.55 usft	Longitude:	-107.613655
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.13 °

Well	Chaco 2307-06G #913H					
Well Position	+N/-S	0.38 usft	Northing:	1,913,587.89 usft	Latitude:	36.258990
	+E/-W	19.90 usft	Easting:	564,786.45 usft	Longitude:	-107.613588
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,970.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/20/2015	9.24	62.97	50,045

Design	Design #1 20Oct15 sam			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	279.44

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,156.75	8.13	180.91	1,155.38	-28.82	-0.46	2.00	2.00	0.00	180.91	
4,675.71	8.13	180.91	4,638.93	-526.71	-8.39	0.00	0.00	0.00	0.00	
5,365.43	60.00	283.48	5,209.71	-503.60	-331.88	9.00	7.52	14.87	106.93	Start 60 tan 913H
5,425.43	60.00	283.48	5,239.71	-491.49	-382.41	0.00	0.00	0.00	0.00	End 60 tan 913H
5,590.30	74.84	283.48	5,302.84	-456.12	-530.03	9.00	9.00	0.00	0.00	
5,761.50	90.25	283.48	5,325.00	-416.68	-694.62	9.00	9.00	0.00	0.00	POE 913H
13,213.00	90.25	283.48	5,293.00	1,319.74	-7,940.91	0.00	0.00	0.00	0.00	BHL 913H

WPX Planning Report

Database: COMPASS
Company: WPX Energy
Project: T23N R7W
Site: Chaco 2307-06G
Well: Chaco 2307-06G #913H
Wellbore: Wellbore #1
Design: Design #1 20Oct15 sam

Local Co-ordinate Reference: Well Chaco 2307-06G #913H
TVD Reference: KB @ 6995.00usft (Aztec 1000)
MD Reference: KB @ 6995.00usft (Aztec 1000)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	5.00	180.91	999.68	-10.90	-0.17	-1.62	2.00	2.00	0.00
1,156.75	8.13	180.91	1,155.38	-28.82	-0.46	-4.27	2.00	2.00	0.00
Hold 8.13 Inclination									
1,500.00	8.13	180.91	1,495.18	-77.39	-1.23	-11.47	0.00	0.00	0.00
2,000.00	8.13	180.91	1,990.15	-148.13	-2.36	-21.96	0.00	0.00	0.00
2,500.00	8.13	180.91	2,485.12	-218.88	-3.49	-32.45	0.00	0.00	0.00
3,000.00	8.13	180.91	2,980.09	-289.62	-4.61	-42.93	0.00	0.00	0.00
3,500.00	8.13	180.91	3,475.06	-360.36	-5.74	-53.42	0.00	0.00	0.00
4,000.00	8.13	180.91	3,970.02	-431.11	-6.86	-63.91	0.00	0.00	0.00
4,500.00	8.13	180.91	4,464.99	-501.85	-7.99	-74.39	0.00	0.00	0.00
4,675.71	8.13	180.91	4,638.93	-526.71	-8.39	-78.08	0.00	0.00	0.00
Start Build DLS 9.00 TFO 106.93									
5,000.00	27.83	273.00	4,949.59	-546.11	-86.03	-4.67	9.00	6.07	28.40
5,365.43	60.00	283.48	5,209.71	-503.60	-331.88	244.83	9.00	8.80	2.87
Hold 60.00 Inclination									
5,425.43	60.00	283.48	5,239.71	-491.49	-382.41	296.66	0.00	0.00	0.00
Start Build DLS 9.00 TFO 0.00									
5,500.00	66.71	283.48	5,273.13	-475.97	-447.19	363.10	9.00	9.00	0.00
5,590.30	74.84	283.48	5,302.84	-456.12	-530.03	448.08	9.00	9.00	0.00
Start DLS 9.00 TFO 0.00									
5,761.50	90.25	283.48	5,325.00	-416.68	-694.62	616.90	9.00	9.00	0.00
POE at 90.25 Inc 283.48 deg - 7"									
6,000.00	90.25	283.48	5,323.98	-361.10	-926.55	854.81	0.00	0.00	0.00
6,500.00	90.25	283.48	5,321.83	-244.58	-1,412.78	1,353.56	0.00	0.00	0.00
7,000.00	90.25	283.48	5,319.68	-128.07	-1,899.01	1,852.32	0.00	0.00	0.00
7,500.00	90.25	283.48	5,317.53	-11.56	-2,385.24	2,351.07	0.00	0.00	0.00
8,000.00	90.25	283.48	5,315.39	104.96	-2,871.47	2,849.82	0.00	0.00	0.00
8,500.00	90.25	283.48	5,313.24	221.47	-3,357.70	3,348.58	0.00	0.00	0.00
9,000.00	90.25	283.48	5,311.09	337.99	-3,843.93	3,847.33	0.00	0.00	0.00
9,500.00	90.25	283.48	5,308.95	454.50	-4,330.16	4,346.08	0.00	0.00	0.00
10,000.00	90.25	283.48	5,306.80	571.02	-4,816.39	4,844.84	0.00	0.00	0.00
10,500.00	90.25	283.48	5,304.65	687.53	-5,302.62	5,343.59	0.00	0.00	0.00
11,000.00	90.25	283.48	5,302.50	804.04	-5,788.85	5,842.34	0.00	0.00	0.00
11,500.00	90.25	283.48	5,300.36	920.56	-6,275.08	6,341.10	0.00	0.00	0.00
12,000.00	90.25	283.48	5,298.21	1,037.07	-6,761.31	6,839.85	0.00	0.00	0.00
12,500.00	90.25	283.48	5,296.06	1,153.59	-7,247.54	7,338.60	0.00	0.00	0.00
13,000.00	90.25	283.48	5,293.91	1,270.10	-7,733.77	7,837.36	0.00	0.00	0.00
13,213.00	90.25	283.48	5,293.00	1,319.74	-7,940.91	8,049.83	0.00	0.00	0.00
TD at 13213.00									

WPX Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well Chaco 2307-06G #913H
Company:	WPX Energy	TVD Reference:	KB @ 6995.00usft (Aztec 1000)
Project:	T23N R7W	MD Reference:	KB @ 6995.00usft (Aztec 1000)
Site:	Chaco 2307-06G	North Reference:	True
Well:	Chaco 2307-06G #913H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 20Oct15 sam		

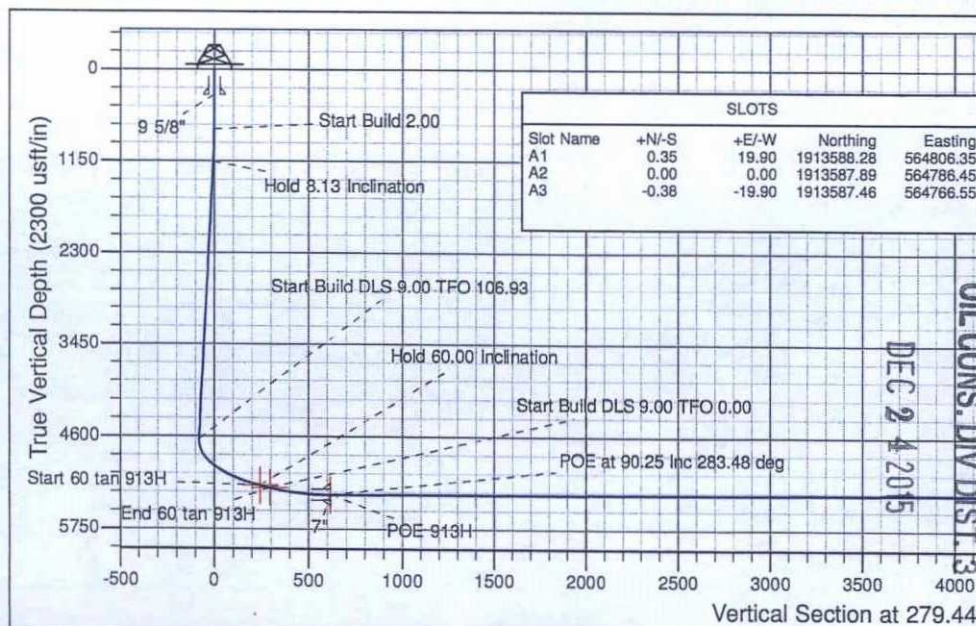
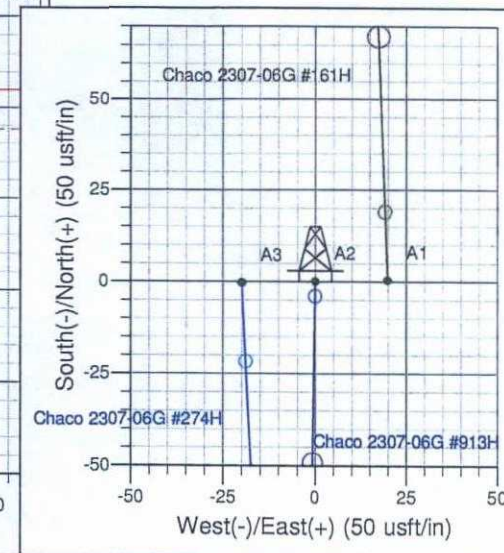
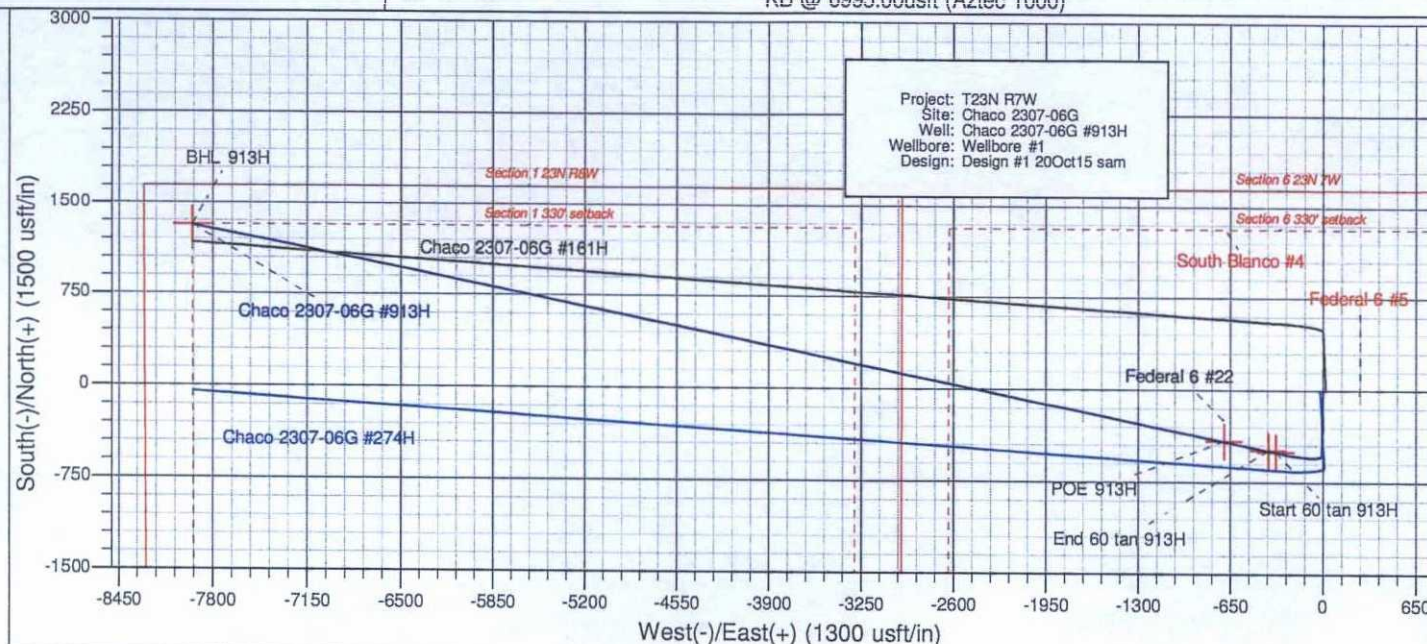
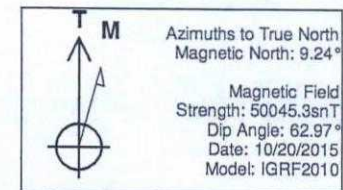
Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 tan 913H - plan hits target center - Point	0.00	0.00	5,209.71	-503.60	-331.88	1,913,083.54	564,455.72	36.257607	-107.614713
End 60 tan 913H - plan hits target center - Point	0.00	0.00	5,239.71	-491.49	-382.41	1,913,095.54	564,405.16	36.257640	-107.614885
BHL 913H - plan hits target center - Point	0.00	0.00	5,293.00	1,319.74	-7,940.91	1,914,889.61	556,842.57	36.262613	-107.640523
POE 913H - plan hits target center - Point	0.00	0.00	5,325.00	-416.68	-694.62	1,913,169.64	564,092.78	36.257845	-107.615944

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
320.00	320.00	9 5/8"	9.625	12.250	
5,761.50	5,325.00	7"	7.000	8.750	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
750.00	750.00	0.00	0.00	Start Build 2.00	
1,156.75	1,155.38	-28.82	-0.46	Hold 8.13 Inclination	
4,675.71	4,638.93	-526.71	-8.39	Start Build DLS 9.00 TFO 106.93	
5,365.43	5,209.71	-503.60	-331.88	Hold 60.00 Inclination	
5,425.43	5,239.71	-491.49	-382.41	Start Build DLS 9.00 TFO 0.00	
5,590.30	5,302.84	-456.12	-530.03	Start DLS 9.00 TFO 0.00	
5,761.50	5,325.00	-416.68	-694.62	POE at 90.25 Inc 283.48 deg	
13,213.00	5,293.00	1,319.74	-7,940.91	TD at 13213.00	



Well Name: Chaco 2307-06G #913H
 Surface Location: Chaco 2307-06G
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6970.00
 +N/-S 0.00 +E/-W 0.00 Northing 1913587.89 Easting 564786.45 Latitude 36.258990 Longitude -107.613588 Slot
 KB @ 6995.00usft (Aztec 1000)



SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
A1	0.35	19.90	1913588.28	564806.35
A2	0.00	0.00	1913587.89	564786.45
A3	-0.38	-19.90	1913587.46	564766.55

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 tan 913H	5209.71	-503.60	-331.88	1913083.54	564455.71	36.257607	-107.614713	Point
End 60 tan 913H	5239.71	-491.49	-382.41	1913095.53	564405.16	36.257640	-107.614885	Point
POE 913H	5325.00	-416.68	-694.62	1913169.64	564092.78	36.257845	-107.615943	Point
BHL 913H	5293.00	1319.74	-7940.91	1914889.61	556842.57	36.262613	-107.640523	Point

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSection	Departure	Annotation	
750.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00	
1155.38	1156.75	8.13	180.91	-28.82	-0.46	-4.27	28.83	Hold 8.13 Inclination	
4638.93	4675.71	8.13	180.91	-526.71	-8.39	-78.08	526.78	Start Build DLS 9.00 TFO 106.93	
5209.71	5365.43	60.00	283.48	-503.60	-331.88	244.83	862.75	Hold 60.00 Inclination	
5239.71	5425.43	60.00	283.48	-491.49	-382.41	296.66	914.71	Start Build DLS 9.00 TFO 0.00	
5302.84	5590.30	74.84	283.48	-456.12	-530.03	448.08	1066.51	Start DLS 9.00 TFO 0.00	
5325.00	5761.50	90.25	283.48	-416.68	-694.62	616.91	1235.75	POE at 90.25 Inc 283.48 deg	
5293.00	13213.00	90.25	283.48	1319.74	-7940.91	8049.83	8687.18	TD at 13213.00	

7.0 Methods for Handling Waste

- A. Cuttings
 - 1. Drilling operations will utilize a closed-loop system. Drilling of the horizontal laterals will be accomplished with water-based mud. All cuttings will be placed in roll-off bins and hauled to a commercial disposal facility or land farm. WPX will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.
 - 2. Closed-loop tanks will be adequately sized for containment of all fluids.
- B. Drilling Fluids
 - 1. Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids will be hauled to a commercial disposal facility.
- C. Spills
 - 1. Any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.
- D. Sewage
 - 1. Portable toilets will be provided and maintained during construction, as needed (see Figure 4 in Appendix A for the location of toilets).
- E. Garbage and other water material
 - 1. 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.
- F. Hazardous Waste
 - 1. No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
 - 2. No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
 - 3. All fluids (i.e., scrubber cleaners) used during washing of production equipment will be properly disposed of to avoid ground contamination or hazard to livestock or wildlife.
- G. Produced Water:
 - 1. WPX Energy will dispose of produced water from this well at one of the following facilities:
 - a. Lybrook Yard WDW #1, API #30-039-27533, NMOCD permit #SWD-907, operated by Elm Ridge Resources, located in NE $\frac{1}{4}$, Section 14, Township 23 North, Range 7 West
 - b. Jillson Federal #1, NMOCD order #R-10168, operated by ConocoPhillips, located in NW $\frac{1}{4}$, Section 8, Township 24 North, Range 3 West
 - c. Basin Disposal, permit #NM-01-005, located in the NW $\frac{1}{4}$, Section 3, Township 29 North, Range 11 West
 - d. Sunco SWD #001, API #30-045-28653, NMOCD permit SWD-457, operated by Key Energy, located in NW $\frac{1}{4}$, Section 2, Township 29 North, Range 12 West
 - 2. Water will be hauled by truck. Some produced water may also be used in drilling and completion operations as an alternative disposal method.

Directions from the Intersection of US Hwy 550 & US Hwy 64
in Bloomfield, NM to WPX Energy Production, LLC Chaco 2307-06G #913H
1647' FNL & 2337' FEL, Section 6, T23N, R7W, N.M.P.M., Rio Arriba County, NM

Latitude: 36.259003°N Longitude: 107.614196°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 43.0 miles to Mile Marker 108.2;

Go Left (Northerly) on County Road #7998 for 0.3 miles to fork in roadway;

Go Right (North-Easterly) for 0.3 miles to fork in roadway;

Go Right (Easterly) for 0.6 miles to fork in roadway;

Go Left (Easterly) which is straight for 0.4 miles to new access on right-hand side of roadway which continues for 3863.7' to staked Chaco 2307-06G #913H location.

