

RECEIVED

Form 3160-5
(February 2005)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUN 12 2015

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

Farmington Field Office

Bureau of Land Management

5. Lease Serial No.

NMSF078534

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
CHACO 2407-35I #159H9. API Well No.
30-039-3131110. Field and Pool or Exploratory Area
Lybrook Gallup/Basin Mancos11. Country or Parish, State
Rio Arriba, NM

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

WPX Energy Production, LLC

3a. Address

PO Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

505-333-1816

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SHL: 1733' FSL & 247' FEL SEC 35 24N 7W

BHL: 1389' FNL & 287' FWL SEC 35 24N 7W

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other LATERAL CHANGE
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

WPX requests to change the orientation of the lateral. Updated directional, ops plans and C102 are attached.

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

OIL CONS. DIV DIST. 3

JUN 26 2015

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Lacey Granillo		Title Permitting Tech III	
Signature		Date 6/12/15	
THIS SPACE FOR FEDERAL OR STATE OFFICE USE			
Approved by William Tambeken		Title Petrokem Engineer	Date 06-24-2015
Conditions of approval, if any, are attached. Approval of this notice 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.		Office FFO	

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 page 2)

ADHERE TO PREVIOUS NMOCD CONDITIONS OF APPROVAL

NMOCD AV

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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

JUN 12 2015

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31311	*Pool Code 97232 / 42289	*Pool Name BASIN MANCOS / LYBROOK GALLUP
*Property Code 314809	*Property Name CHACO 2407-35I	*Well Number 159H
*OGRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 6806'

¹⁰ Surface Location

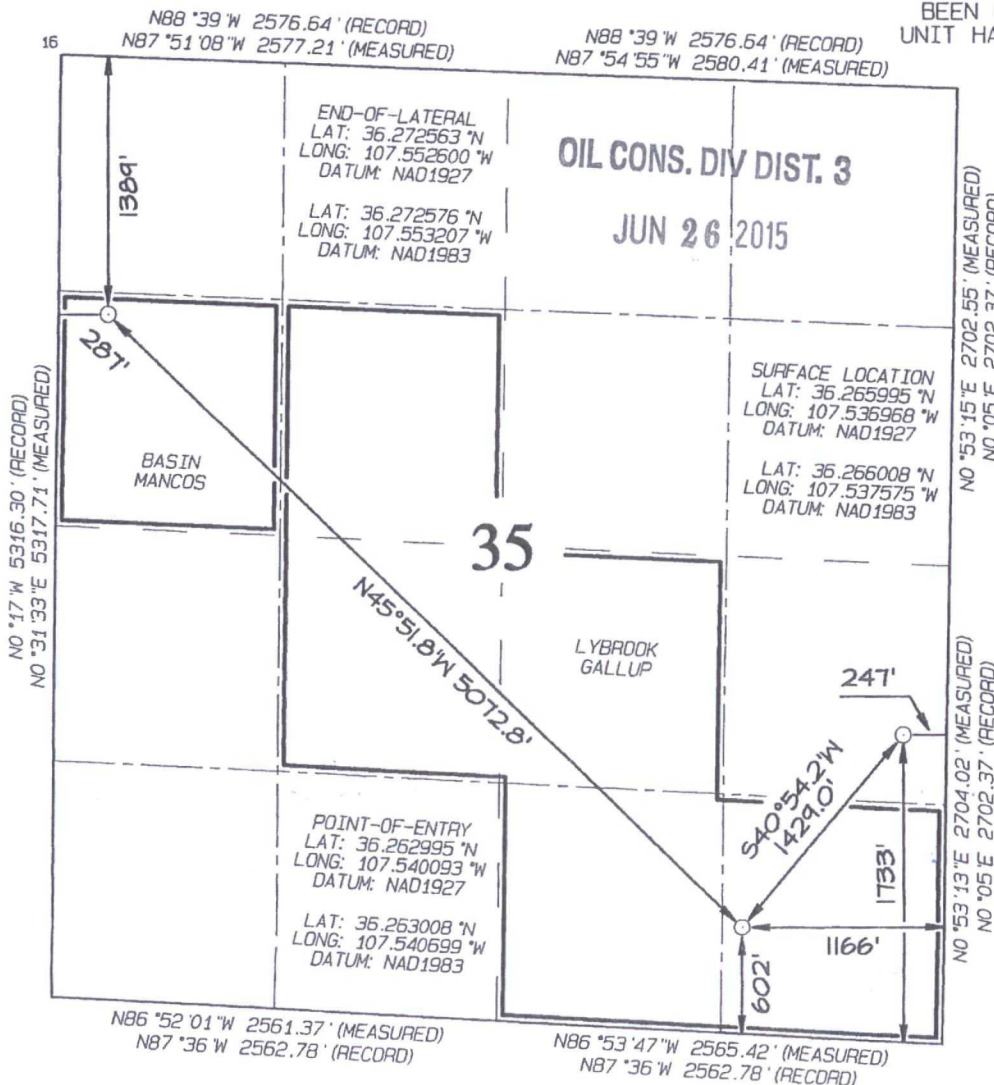
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	35	24N	7W		1733	SOUTH	247	EAST	RIO ARriba

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
E	35	24N	7W		1389	NORTH	287	WEST	RIO ARriba

¹² Dedicated Acres 240.0	S/2 SE/4 & NW/4 SE/4 NE/4 SW/4 & S/2 NW/4 SECTION 35, T24N, R7W	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS
COMPLETION UNTIL ALL INTERESTS HAVE
BEEN CONSOLIDATED OR A NON-STANDARD
UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *[Signature]* Date: 6/12/15
Printed Name: *[Name]*
E-mail Address: *[Email]*

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: JUNE 11, 2015
Survey Date: SEPTEMBER 3, 2013

Signature and Seal of Professional Surveyor

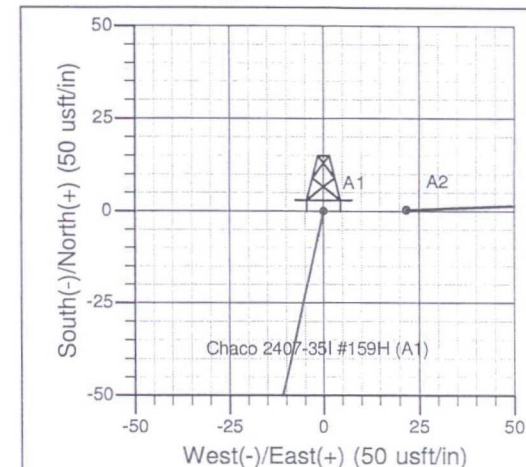
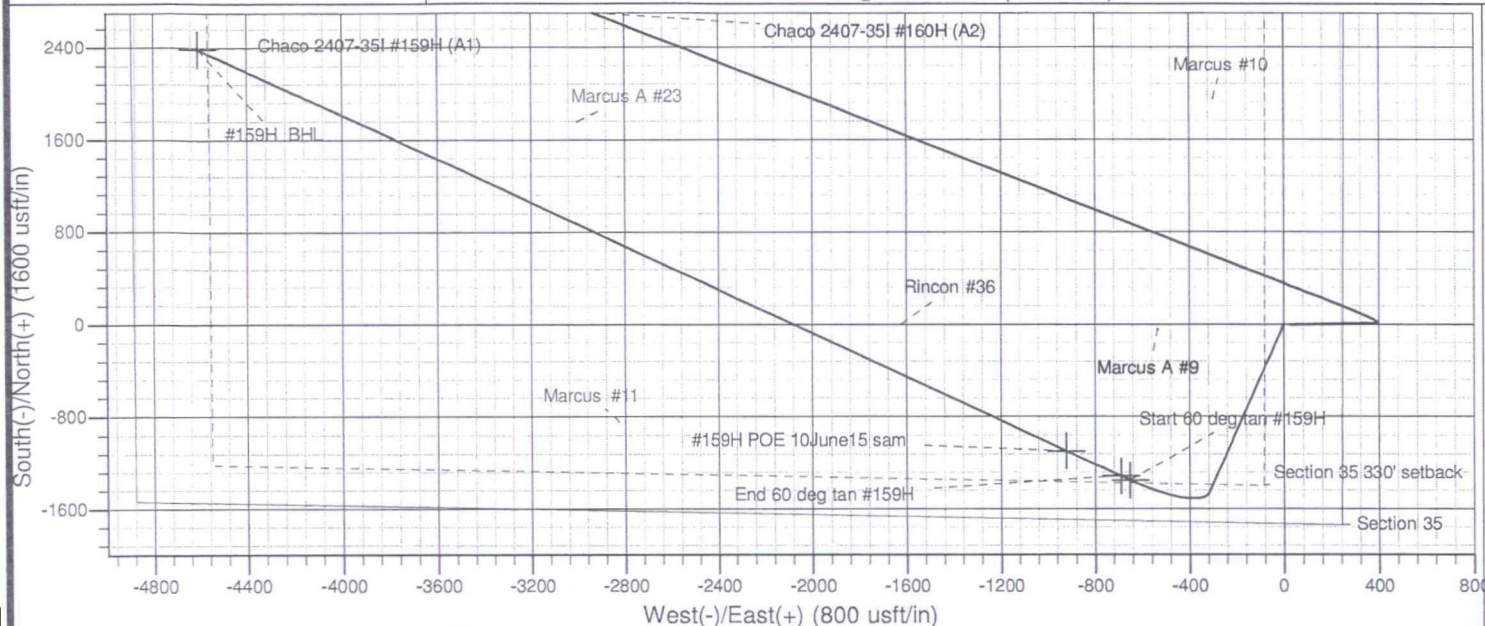
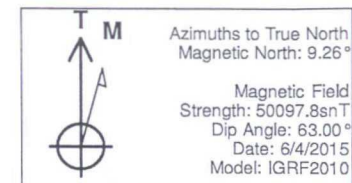


JASON C. EDWARDS

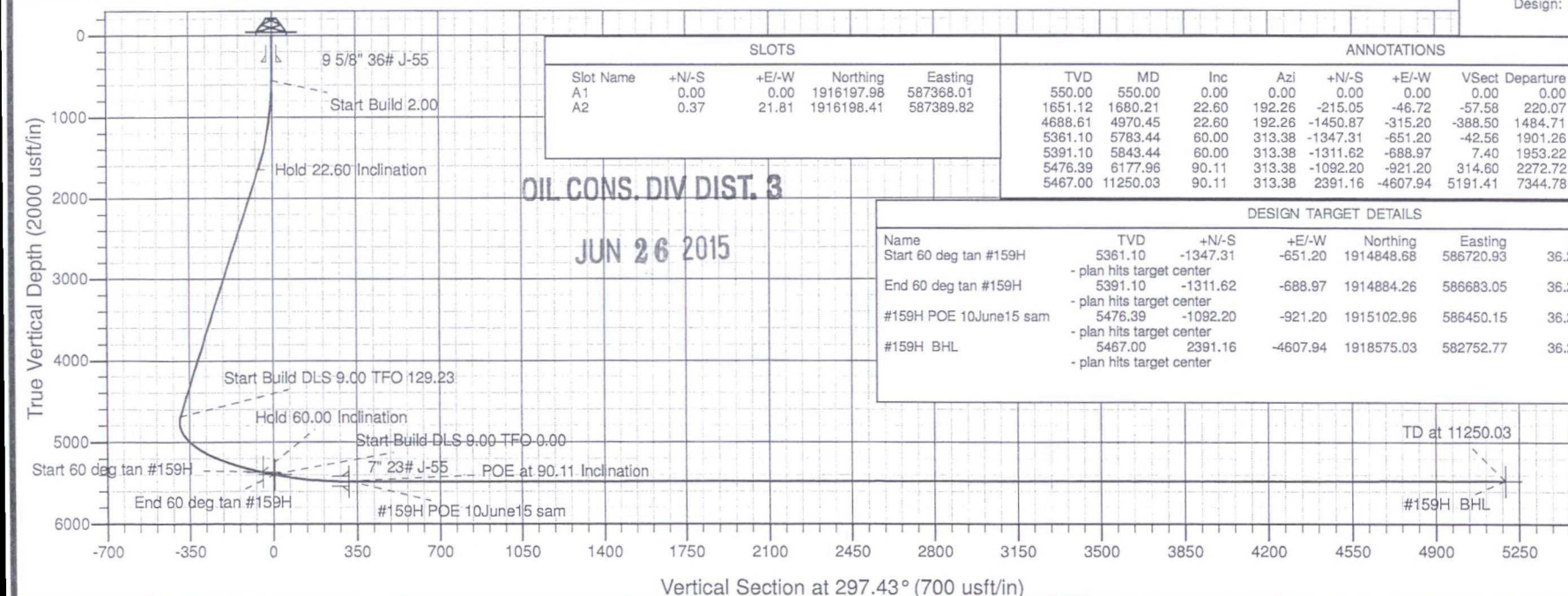
Certificate Number 15269

Well Name: Chaco 2407-35I #159H
 Surface Location: Chaco 2407-35I
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6806.00
 +N/-S 0.00 +E/-W 0.00 Northing 1916197.98 Easting 587368.01 Latitude 36.2659950 Longitude -107.5369680
 KB @ 6820.00usft (Aztec 920)

Slot
A1



Project: T24N R7W
 Site: Chaco 2407-35I
 Well: Chaco 2407-35I #159H
 Wellbore: Wellbore #1
 Design: Design #1 4Jun15 sam



OIL CONS. DIV DIST. 3

JUN 26 2015

SLOTS					ANNOTATIONS								
Slot Name	+N/-S	+E/-W	Northing	Easting	TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
A1	0.00	0.00	1916197.98	587368.01	550.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
A2	0.37	21.81	1916198.41	587389.82	1651.12	1680.21	22.60	192.26	-215.05	-46.72	-57.58	220.07	Hold 22.60 Inclination
					4688.61	4970.45	22.60	192.26	-1450.87	-315.20	-388.50	1484.71	Start Build DLS 9.00 TFO 129.23
					5361.10	5783.44	60.00	313.38	-1347.31	-651.20	-42.56	1901.26	Hold 60.00 Inclination
					5391.10	5843.44	60.00	313.38	-1311.62	-688.97	7.40	1953.22	Start Build DLS 9.00 TFO 0.00
					5476.39	6177.96	90.11	313.38	-1092.20	-921.20	314.60	2272.72	POE at 90.11 Inclination
					5467.00	11250.03	90.11	313.38	2391.16	-4607.94	5191.41	7344.78	TD at 11250.03

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	Point
Start 60 deg tan #159H	5361.10	-1347.31	-651.20	1914848.68	586720.93	36.2622938	-107.5391768	Point	
End 60 deg tan #159H	5391.10	-1311.62	-688.97	1914884.26	586683.05	36.2623918	-107.5393050	Point	
#159H POE 10June15 sam	5476.39	-1092.20	-921.20	1915102.96	586450.15	36.2629946	-107.5400927	Point	
#159H BHL	5467.00	2391.16	-4607.94	1918575.03	582752.77	36.2725628	-107.5526000	Point	

OIL CONS. DIV DIST. 3

JUN 26 2015

WPX Energy

T24N R7W

Chaco 2407-35I

Chaco 2407-35I #159H - Slot A1

Wellbore #1

Plan: Design #1 4Jun15 sam

Standard Planning Report

10 June, 2015

WPX

Planning Report

Database:	COMPASS-SANJUAN	Local Co-ordinate Reference:	Well Chaco 2407-35I #159H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	KB @ 6820.00usft (Aztec 920)
Project:	T24N R7W	MD Reference:	KB @ 6820.00usft (Aztec 920)
Site:	Chaco 2407-35I	North Reference:	True
Well:	Chaco 2407-35I #159H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 4Jun15 sam		

Project	T24N 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 2407-35I		
Site Position:		Northing:	1,916,198.41 usft
From:	Lat/Long	Easting:	587,389.82 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.2659950
		Longitude:	-107.5368940
		Grid Convergence:	0.18 °

Well	Chaco 2407-35I #159H - Slot A1		
Well Position	+N/-S	-0.36 usft	Northing:
	+E/-W	-21.82 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.2659950
		Longitude:	-107.5369680
		Ground Level:	6,806.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/4/2015	9.26	63.00	50,098

Design	Design #1 4Jun15 sam			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	297.43

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	
550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,680.21	22.60	192.26	1,651.12	-215.05	-46.72	2.00	2.00	0.00	192.26	
4,970.45	22.60	192.26	4,688.61	-1,450.87	-315.20	0.00	0.00	0.00	0.00	
5,783.44	60.00	313.38	5,361.10	-1,347.31	-651.20	9.00	4.60	14.90	129.23	Start 60 deg tan
5,843.44	60.00	313.38	5,391.10	-1,311.62	-688.97	0.00	0.00	0.00	0.00	End 60 deg tan
6,013.83	75.34	313.38	5,455.65	-1,203.70	-803.19	9.00	9.00	0.00	0.00	
6,177.96	90.11	313.38	5,476.39	-1,092.20	-921.20	9.00	9.00	0.00	0.00	#159H POE 10June1!
11,250.03	90.11	313.38	5,467.00	2,391.16	-4,607.94	0.00	0.00	0.00	0.00	#159H BHL

WPX

Planning Report

Database:	COMPASS-SANJUAN	Local Co-ordinate Reference:	Well Chaco 2407-35I #159H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	KB @ 6820.00usft (Aztec 920)
Project:	T24N R7W	MD Reference:	KB @ 6820.00usft (Aztec 920)
Site:	Chaco 2407-35I	North Reference:	True
Well:	Chaco 2407-35I #159H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 4Jun15 sam		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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" 36# J-55									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
550.00	0.00	0.00	550.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	9.00	192.26	998.15	-34.47	-7.49	-9.23	2.00	2.00	0.00
1,500.00	19.00	192.26	1,482.68	-152.52	-33.13	-40.84	2.00	2.00	0.00
1,680.21	22.60	192.26	1,651.12	-215.05	-46.72	-57.58	2.00	2.00	0.00
Hold 22.60 Inclination									
2,000.00	22.60	192.26	1,946.34	-335.16	-72.81	-89.75	0.00	0.00	0.00
2,500.00	22.60	192.26	2,407.93	-522.97	-113.61	-140.03	0.00	0.00	0.00
3,000.00	22.60	192.26	2,869.53	-710.77	-154.41	-190.32	0.00	0.00	0.00
3,500.00	22.60	192.26	3,331.12	-898.57	-195.21	-240.61	0.00	0.00	0.00
4,000.00	22.60	192.26	3,792.71	-1,086.37	-236.01	-290.90	0.00	0.00	0.00
4,500.00	22.60	192.26	4,254.30	-1,274.17	-276.81	-341.18	0.00	0.00	0.00
4,970.45	22.60	192.26	4,688.61	-1,450.87	-315.20	-388.50	0.00	0.00	0.00
Start Build DLS 9.00 TFO 129.23									
5,000.00	21.02	198.01	4,716.05	-1,461.46	-318.04	-390.85	9.00	-5.37	19.46
5,500.00	36.73	299.04	5,173.55	-1,474.85	-485.15	-248.70	9.00	3.14	20.21
5,783.44	60.00	313.38	5,361.10	-1,347.31	-651.20	-42.56	9.00	8.21	5.06
Hold 60.00 Inclination									
5,843.44	60.00	313.38	5,391.10	-1,311.62	-688.97	7.40	0.00	0.00	0.00
Start Build DLS 9.00 TFO 0.00									
6,000.00	74.09	313.38	5,452.01	-1,212.86	-793.49	145.67	9.00	9.00	0.00
6,013.83	75.34	313.38	5,455.65	-1,203.70	-803.19	158.49	9.00	9.00	0.00
6,177.96	90.11	313.38	5,476.39	-1,092.20	-921.20	314.60	9.00	9.00	0.00
POE at 90.11 Inclination									
6,178.00	90.11	313.38	5,476.39	-1,092.17	-921.23	314.64	0.00	0.00	0.00
7" 23# J-55									
6,500.00	90.11	313.38	5,475.79	-871.03	-1,155.28	624.24	0.00	0.00	0.00
7,000.00	90.11	313.38	5,474.87	-527.64	-1,518.72	1,104.99	0.00	0.00	0.00
7,500.00	90.11	313.38	5,473.94	-184.26	-1,882.15	1,585.75	0.00	0.00	0.00
8,000.00	90.11	313.38	5,473.02	159.13	-2,245.59	2,066.50	0.00	0.00	0.00
8,500.00	90.11	313.38	5,472.09	502.52	-2,609.02	2,547.25	0.00	0.00	0.00
9,000.00	90.11	313.38	5,471.17	845.90	-2,972.46	3,028.00	0.00	0.00	0.00
9,500.00	90.11	313.38	5,470.24	1,189.29	-3,335.89	3,508.75	0.00	0.00	0.00
10,000.00	90.11	313.38	5,469.31	1,532.67	-3,699.33	3,989.50	0.00	0.00	0.00
10,500.00	90.11	313.38	5,468.39	1,876.06	-4,062.76	4,470.26	0.00	0.00	0.00
11,000.00	90.11	313.38	5,467.46	2,219.45	-4,426.20	4,951.01	0.00	0.00	0.00
11,250.03	90.11	313.38	5,467.00	2,391.16	-4,607.94	5,191.41	0.00	0.00	0.00
TD at 11250.03									

WPX

Planning Report

Database:	COMPASS-SANJUAN	Local Co-ordinate Reference:	Well Chaco 2407-35I #159H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	KB @ 6820.00usft (Aztec 920)
Project:	T24N R7W	MD Reference:	KB @ 6820.00usft (Aztec 920)
Site:	Chaco 2407-35I	North Reference:	True
Well:	Chaco 2407-35I #159H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 4Jun15 sam		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 deg tan - plan hits target center - Point	0.00	0.00	5,361.10	-1,347.31	-651.20	1,914,848.68	586,720.94	36.2622937	-107.5391769
End 60 deg tan - plan hits target center - Point	0.00	0.00	5,391.10	-1,311.62	-688.97	1,914,884.26	586,683.06	36.2623918	-107.5393050
#159H BHL - plan hits target center - Point	0.00	0.00	5,467.00	2,391.16	-4,607.94	1,918,575.03	582,752.77	36.2725628	-107.5526001
#159H POE 10June15 s - plan hits target center - Point	0.00	0.00	5,476.39	-1,092.20	-921.20	1,915,102.97	586,450.16	36.2629945	-107.5400927

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
320.00	320.00	9 5/8" 36# J-55	9.62	12.25	
6,178.00	5,476.39	7" 23# J-55	7.00	8.75	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
550.00	550.00	0.00	0.00	Start Build 2.00
1,680.21	1,651.12	-215.05	-46.72	Hold 22.60 Inclination
4,970.45	4,688.61	-1,450.87	-315.20	Start Build DLS 9.00 TFO 129.23
5,783.44	5,361.10	-1,347.31	-651.20	Hold 60.00 Inclination
5,843.44	5,391.10	-1,311.62	-688.97	Start Build DLS 9.00 TFO 0.00
6,177.96	5,476.39	-1,203.70	-803.19	POE at 90.11 Inclination
11,250.03	5,467.00	-1,092.20	-921.20	TD at 11250.03

WPX ENERGY

Operations Plan

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

DATE: 6/12/2015 **FIELD:** Basin Mancos/ Lybrook Gallup

WELL NAME: Chaco 2407-35I #159H **SURFACE:** BLM

SH Location: NESE Section 35 24N-07W **ELEVATION:** 6806' GR

BH Location: SWNW Section 35 24N-07W **MINERALS:** Federal
Rio Arriba CO., NM

MEASURED DEPTH: 11,250'

I. GEOLOGY: Surface formation – San Jose

A. FORMATION TOPS: (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1033	1031	Point Lookout	4386	4149
Kirtland	1348	1338	Mancos	4666	4408
Picture Cliffs	2071	2012	Kickoff Point	4970	4689
Lewis	2149	2084	Top Target	5849	5394
Chacra	2427	2341	Landing Point	6178	5476
Cliff House	3610	3443	Base Target	6178	5476
Menefee	3667	3485			
			TD	11250	5467

- 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:

<u>CASING TYPE</u>	<u>OH SIZE (IN)</u>	<u>DEPTH (MD) (FT)</u>	<u>CASING SIZE (IN)</u>	<u>WEIGHT(LB)</u>	<u>GRADE</u>
Surface	12.25"	320'	9.625"	36#	J-55
Intermediate	8.75"	6178'	7"	23#	K-55
Prod. Liner	6.125"	6028' - 11250'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 6028'	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 + 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.
4. TIE-BACK CASING: None

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. PRODUCTION 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 TM System. Yield 1.36 cu ft/sk, 13.5 ppg, (416 sx / 566 cu ft. / 100 bbls). **Tail Spacer:** 20 BBL of MMCR. **Displacement:** Displace w/ +/- 145 bbl Fr Water. Total Cement (520 cu ft / 92.6 bbls).

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.

- 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.
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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 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).

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. After Stimulation and Testing operations are complete the 4-1/2" tie-back string will be removed from the well.