

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21241	*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 314331	*Property Name S CHACO UT	*Well Number 346H
*OGRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 7034'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	2	22N	7W	1	1305	NORTH	200	EAST	SANDOVAL

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
A	1	22N	7W	1	1111	NORTH	333	EAST	SANDOVAL

¹² Dedicated Acres 160.64	N/2 N/2 Section 1	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13883-A
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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

SURFACE LOCATION
1305' FNL 200' FEL
SEC 2, T22N, R7W
LAT: 36.172113°N
LONG: 107.535526°W
DATUM: NAD1927

LAT: 36.172127°N
LONG: 107.536132°W
DATUM: NAD1983

POINT-OF-ENTRY
378' FNL 341' FWL
SEC 1, T22N, R7W
LAT: 36.174662°N
LONG: 107.533670°W
DATUM: NAD1927

LAT: 36.174677°N
LONG: 107.534191°W
DATUM: NAD1983

RSI TOOL
1109' FNL 348' FEL
SEC 1, T22N, R7W
LAT: 36.172704 'N
LONG: 107.518153 'W
DATUM: NAD1927

LAT: 36.172718 'N
LONG: 107.518758 'W
DATUM: NAD1983

END-OF-LATERAL
1111' FNL 333' FEL
SEC 1, T22N, R7W
LAT: 36.172698°N
LONG: 107.518099°W
DATUM: NAD1927

LAT: 36.172712°N
LONG: 107.518705°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 or an agreement with a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

heretofore entered by the division.

Signature Marie E. Jaramillo Date 8/11/15

Printed Name Marie E. Jaramillo

E-mail Address marie.jaramillo@wpxenergy.com

¹⁸ SURVEYOR CERTIFICATION

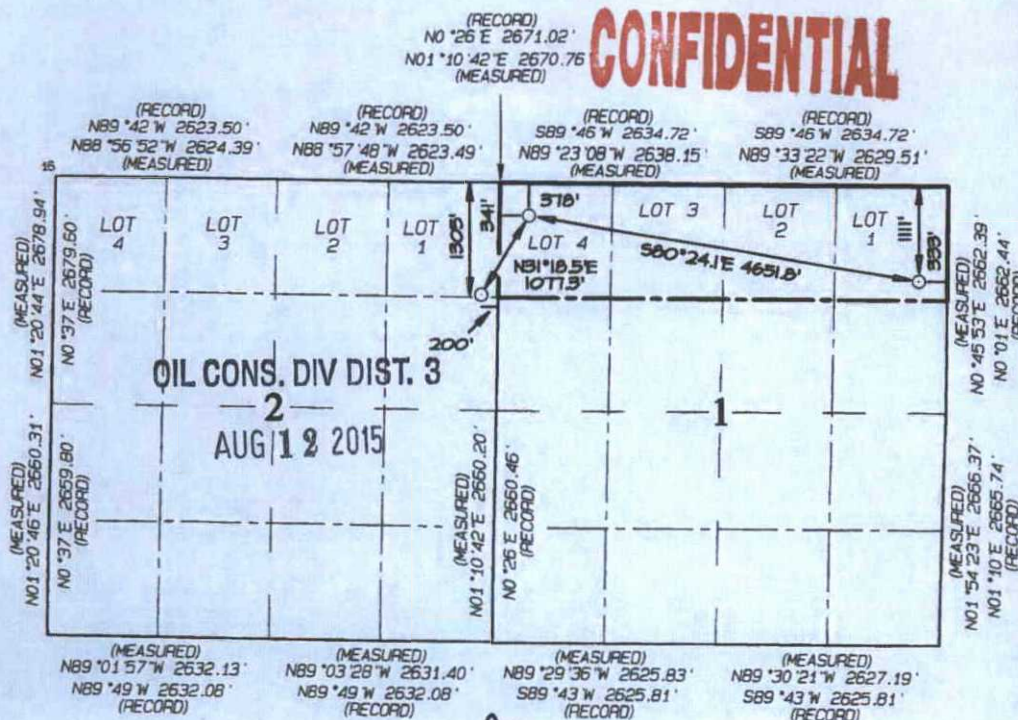
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: AUGUST 7, 2015
Survey Date: AUGUST 15, 2014

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



A ✓

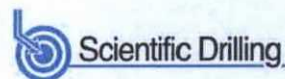
RV

OIL CONS. DIV DIST. 3

AUG 12 2015



Company Name: WPX Energy
 Project: T22N R7W
 Site: Chaco 2207-02A
 Well: S Chaco UT #346H



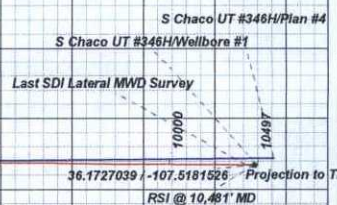
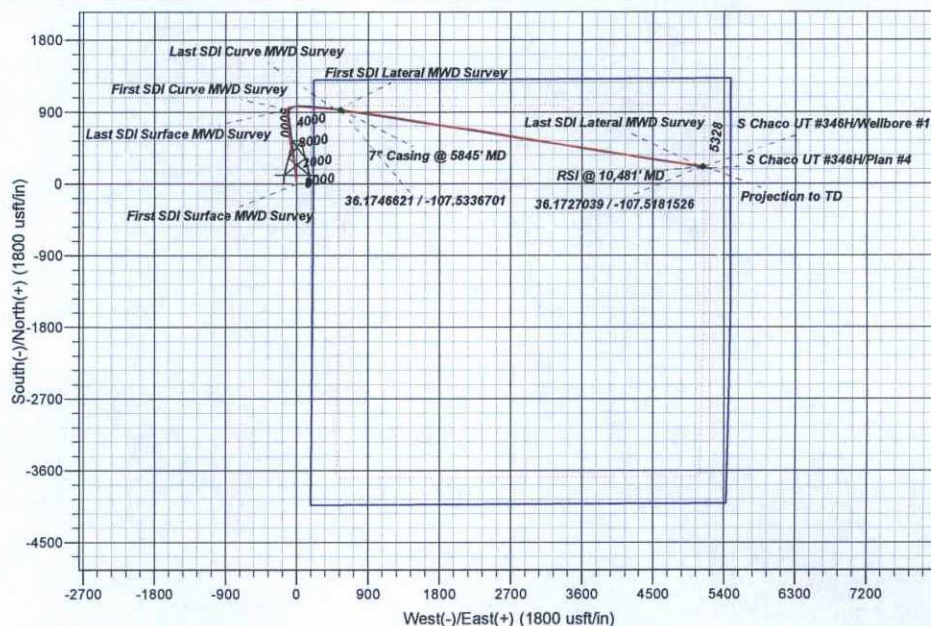
Azimuths to True North
 Magnetic North: 9.08°

Magnetic Field
 Strength: 49766.5nT
 Dip Angle: 62.92°
 Date: 7/11/2015
 Model: HDGM

WELL DETAILS: S Chaco UT #346H

GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)		7034.00	
+N/-S	+E/-W	North	East
0.00	0.00	1882025.30	587898.36
		Latitude	Longitude
		36.1721139	-107.5355250

A4



Design: Wellbore #1 (S Chaco UT #346H/Wellbore #1)
 Created By: Janie Collins Date: 11:09, August 03 2015

PROJECT DETAILS: T22N R7W

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003

System Datum: Mean Sea Level
 Local North: True

Company:	WPX Energy	Local Co-ordinate Reference:	Well S Chaco UT #346H - Slot A4
Project:	T22N R7W	TVD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Site:	Chaco 2207-02A	MD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Well:	S Chaco UT #346H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Grand Junction District

CONFIDENTIAL

OIL CONS. DIV DIST. 3

Project	T22N R7W	System Datum:	Mean Sea Level
Map System:	US State Plane 1927 (Exact solution)		
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

AUG 12 2015

Site		Chaco 2207-02A			
Site Position:		Northing:	1,881,980.93 usft	Latitude:	36.1719920
From:	Map	Easting:	587,898.06 usft	Longitude:	-107.5355265
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.18 °

Well		S Chaco UT #346H - Slot A4				
Well Position	+N/-S	0.00 usft	Northing:	1,882,025.30 usft	Latitude:	36.1721139
	+E/-W	0.00 usft	Easting:	587,898.36 usft	Longitude:	-107.5355250
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,034.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/11/2015	9.08	62.92	49,767

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	99.56	

Survey Program		Date 8/3/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
25.00	325.00	Survey #1 (Wellbore #1)	GYRO-NS	Gyrocompass Gyro
380.00	4,732.00	Survey #2 - Surface MWD (Wellbore #1)	SDI MWD	SDI MWD - Standard ver 1.0.1
4,778.00	5,780.00	Survey #3 - Curve MWD Survey (Wellbore	SDI MWD	SDI MWD - Standard ver 1.0.1
5,795.00	10,497.00	Survey #4 - SDI Lateral MWD Survey (We	SDI MWD	SDI MWD - Standard ver 1.0.1

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,882,025.30	587,898.36	36.1721139	-107.5355250
25.00	0.00	0.00	25.00	0.00	0.00	1,882,025.30	587,898.36	36.1721139	-107.5355250
55.00	0.56	233.18	55.00	-0.09	-0.12	1,882,025.21	587,898.25	36.1721136	-107.5355254
85.00	0.51	229.31	85.00	-0.26	-0.34	1,882,025.04	587,898.03	36.1721132	-107.5355262
115.00	0.57	242.91	115.00	-0.42	-0.57	1,882,024.88	587,897.79	36.1721127	-107.5355270
145.00	0.47	257.50	145.00	-0.51	-0.82	1,882,024.79	587,897.54	36.1721125	-107.5355278
175.00	0.59	273.69	174.99	-0.53	-1.10	1,882,024.77	587,897.27	36.1721124	-107.5355288
205.00	0.43	267.77	204.99	-0.52	-1.36	1,882,024.77	587,897.00	36.1721124	-107.5355297
235.00	0.31	284.31	234.99	-0.51	-1.56	1,882,024.79	587,896.81	36.1721125	-107.5355303

Company:	WPX Energy	Local Co-ordinate Reference:	Well S Chaco UT #346H - Slot A4
Project:	T22N R7W	TVD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Site:	Chaco 2207-02A	MD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Well:	S Chaco UT #346H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
265.00	0.41	327.47	264.99	-0.40	-1.69	1,882,024.90	587,896.67	36.1721128	-107.5355308
295.00	0.32	325.96	294.99	-0.24	-1.80	1,882,025.06	587,896.57	36.1721132	-107.5355311
325.00	0.37	338.29	324.99	-0.08	-1.88	1,882,025.22	587,896.48	36.1721137	-107.5355314
380.00	0.30	330.16	379.99	0.21	-2.02	1,882,025.51	587,896.35	36.1721145	-107.5355319
First SDI Surface MWD Survey									
450.00	0.80	350.13	449.99	0.85	-2.19	1,882,026.15	587,896.17	36.1721162	-107.5355325
541.00	2.93	358.76	540.93	3.80	-2.35	1,882,029.10	587,896.00	36.1721243	-107.5355330
632.00	3.44	0.90	631.79	8.86	-2.36	1,882,034.15	587,895.98	36.1721382	-107.5355330
723.00	4.68	354.69	722.56	15.29	-2.66	1,882,040.58	587,895.66	36.1721559	-107.5355340
813.00	8.18	349.22	811.98	25.23	-4.20	1,882,050.52	587,894.09	36.1721832	-107.5355393
905.00	9.08	349.76	902.94	38.81	-6.71	1,882,064.09	587,891.53	36.1722205	-107.5355478
996.00	9.62	353.60	992.73	53.43	-8.84	1,882,078.71	587,889.36	36.1722607	-107.5355550
1,087.00	10.62	353.13	1,082.32	69.31	-10.69	1,882,094.58	587,887.46	36.1723043	-107.5355612
1,178.00	12.16	350.73	1,171.52	87.10	-13.23	1,882,112.36	587,884.86	36.1723531	-107.5355699
1,269.00	12.80	351.40	1,260.37	106.52	-16.28	1,882,131.78	587,881.75	36.1724065	-107.5355802
1,361.00	13.32	352.89	1,349.99	127.12	-19.12	1,882,152.36	587,878.85	36.1724631	-107.5355898
1,452.00	13.36	355.57	1,438.54	148.00	-21.23	1,882,173.24	587,876.68	36.1725205	-107.5355970
1,542.00	14.04	352.63	1,525.98	169.20	-23.43	1,882,194.43	587,874.41	36.1725787	-107.5356044
1,633.00	13.45	349.01	1,614.37	190.53	-26.87	1,882,215.75	587,870.91	36.1726373	-107.5356161
1,724.00	12.55	345.81	1,703.04	210.51	-31.31	1,882,235.71	587,866.41	36.1726922	-107.5356311
1,816.00	12.84	354.67	1,792.80	230.38	-34.71	1,882,255.57	587,862.95	36.1727468	-107.5356426
1,907.00	13.38	353.74	1,881.43	250.91	-36.80	1,882,276.10	587,860.80	36.1728032	-107.5356497
1,999.00	13.29	353.67	1,970.95	272.00	-39.12	1,882,297.18	587,858.41	36.1728611	-107.5356576
2,090.00	14.21	349.56	2,059.34	293.39	-42.30	1,882,318.56	587,855.16	36.1729198	-107.5356684
2,181.00	13.98	348.35	2,147.60	315.13	-46.54	1,882,340.29	587,850.85	36.1729796	-107.5356827
2,272.00	13.97	346.51	2,235.91	336.58	-51.33	1,882,361.72	587,846.01	36.1730385	-107.5356989
2,364.00	14.08	345.60	2,325.16	358.22	-56.70	1,882,383.35	587,840.57	36.1730980	-107.5357171
2,456.00	14.34	344.24	2,414.35	380.02	-62.58	1,882,405.13	587,834.62	36.1731579	-107.5357371
2,547.00	14.56	348.60	2,502.47	402.08	-67.90	1,882,427.17	587,829.23	36.1732185	-107.5357551
2,638.00	14.62	350.30	2,590.54	424.62	-72.09	1,882,449.69	587,824.97	36.1732804	-107.5357693
2,730.00	14.86	350.10	2,679.51	447.68	-76.08	1,882,472.75	587,820.91	36.1733437	-107.5357828
2,821.00	14.75	350.16	2,767.49	470.59	-80.06	1,882,495.65	587,816.86	36.1734067	-107.5357963
2,912.00	15.00	350.41	2,855.44	493.62	-84.01	1,882,518.66	587,812.84	36.1734699	-107.5358097
3,002.00	14.30	351.81	2,942.52	516.10	-87.53	1,882,541.13	587,809.25	36.1735317	-107.5358216
3,093.00	13.98	351.07	3,030.76	538.09	-90.84	1,882,563.11	587,805.88	36.1735921	-107.5358328
3,184.00	13.60	352.99	3,119.14	559.56	-93.85	1,882,584.58	587,802.80	36.1736511	-107.5358430
3,275.00	13.45	354.49	3,207.61	580.72	-96.17	1,882,605.72	587,800.41	36.1737092	-107.5358509
3,366.00	13.48	353.34	3,296.11	601.79	-98.42	1,882,626.78	587,798.10	36.1737671	-107.5358585
3,457.00	13.33	352.79	3,384.63	622.73	-100.96	1,882,647.72	587,795.49	36.1738246	-107.5358671
3,548.00	14.04	355.49	3,473.05	644.14	-103.15	1,882,669.12	587,793.24	36.1738834	-107.5358745
3,639.00	14.37	355.70	3,561.27	666.41	-104.86	1,882,691.38	587,791.46	36.1739446	-107.5358803
3,731.00	14.49	355.31	3,650.36	689.26	-106.66	1,882,714.23	587,789.59	36.1740074	-107.5358864
3,822.00	14.42	354.28	3,738.48	711.88	-108.72	1,882,736.85	587,787.46	36.1740695	-107.5358934
3,913.00	14.19	350.61	3,826.66	734.16	-111.67	1,882,759.12	587,784.44	36.1741307	-107.5359034
4,003.00	13.98	350.10	3,913.96	755.75	-115.34	1,882,780.70	587,780.71	36.1741900	-107.5359158
4,094.00	13.58	349.44	4,002.34	777.08	-119.19	1,882,802.02	587,776.79	36.1742486	-107.5359289
4,189.00	13.30	351.10	4,094.74	798.84	-122.92	1,882,823.77	587,772.99	36.1743084	-107.5359415
4,276.00	13.81	354.74	4,179.31	819.07	-125.42	1,882,843.99	587,770.43	36.1743640	-107.5359500
4,367.00	14.36	355.68	4,267.58	841.14	-127.27	1,882,866.05	587,768.52	36.1744246	-107.5359562
4,459.00	13.19	354.21	4,356.93	862.96	-129.19	1,882,887.86	587,766.53	36.1744846	-107.5359627
4,550.00	13.73	356.74	4,445.43	884.07	-130.85	1,882,908.97	587,764.80	36.1745426	-107.5359684
4,641.00	13.60	355.71	4,533.86	905.52	-132.26	1,882,930.41	587,763.32	36.1746015	-107.5359732
4,686.00	13.31	354.14	4,577.62	915.95	-133.19	1,882,940.84	587,762.37	36.1746301	-107.5359763
4,732.00	12.26	359.39	4,622.48	926.10	-133.78	1,882,950.99	587,761.74	36.1746580	-107.5359783
Last SDI Surface MWD Survey									

Company:	WPX Energy	Local Co-ordinate Reference:	Well S Chaco UT #346H - Slot A4
Project:	T22N R7W	TVD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Site:	Chaco 2207-02A	MD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Well:	S Chaco UT #346H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,778.00	11.27	15.87	4,667.53	935.31	-132.60	1,882,960.20	587,762.89	36.1746833	-107.5359743
First SDI Curve MWD Survey									
4,823.00	12.36	35.71	4,711.59	943.46	-128.59	1,882,968.36	587,766.88	36.1747057	-107.5359607
4,869.00	12.95	52.68	4,756.49	950.58	-121.61	1,882,975.51	587,773.84	36.1747253	-107.5359371
4,915.00	13.43	67.77	4,801.29	955.73	-112.56	1,882,980.68	587,782.87	36.1747394	-107.5359064
4,960.00	15.74	76.40	4,844.84	959.14	-101.79	1,882,984.13	587,793.63	36.1747488	-107.5358699
5,006.00	18.07	80.41	4,888.85	961.80	-88.69	1,882,986.82	587,806.72	36.1747561	-107.5358255
5,051.00	20.48	84.09	4,931.33	963.77	-73.98	1,882,988.84	587,821.43	36.1747615	-107.5357757
5,096.00	23.40	86.89	4,973.07	965.07	-57.22	1,882,990.19	587,838.18	36.1747651	-107.5357189
5,142.00	27.45	88.98	5,014.60	965.75	-37.49	1,882,990.93	587,857.91	36.1747669	-107.5356521
5,187.00	30.95	91.17	5,053.88	965.70	-15.54	1,882,990.95	587,879.86	36.1747668	-107.5355777
5,233.00	35.27	91.28	5,092.40	965.16	9.57	1,882,990.49	587,904.98	36.1747653	-107.5354926
5,279.00	39.82	91.55	5,128.86	964.47	37.59	1,882,989.88	587,932.99	36.1747634	-107.5353977
5,325.00	46.16	92.07	5,162.49	963.47	68.92	1,882,988.98	587,964.33	36.1747607	-107.5352915
5,370.00	51.61	93.55	5,192.07	961.79	102.77	1,882,987.40	587,998.18	36.1747561	-107.5351768
5,416.00	57.01	94.82	5,218.90	959.05	140.02	1,882,984.78	588,035.44	36.1747485	-107.5350506
5,439.00	57.83	94.63	5,231.29	957.45	159.33	1,882,983.24	588,054.75	36.1747441	-107.5349852
5,462.00	58.66	94.44	5,243.39	955.91	178.83	1,882,981.75	588,074.26	36.1747399	-107.5349191
5,485.00	61.06	93.96	5,254.94	954.45	198.66	1,882,980.36	588,094.10	36.1747359	-107.5348519
5,507.00	63.36	93.53	5,265.20	953.18	218.08	1,882,979.15	588,113.52	36.1747324	-107.5347861
5,553.00	69.66	93.16	5,283.52	950.72	260.18	1,882,976.82	588,155.62	36.1747257	-107.5346435
5,598.00	76.49	93.17	5,296.61	948.35	303.14	1,882,974.58	588,198.59	36.1747191	-107.5344980
5,644.00	79.58	94.25	5,306.15	945.43	348.04	1,882,971.80	588,243.50	36.1747111	-107.5343458
5,689.00	82.50	95.57	5,313.16	941.63	392.32	1,882,968.13	588,287.79	36.1747007	-107.5341958
5,735.00	87.18	94.68	5,317.29	937.54	437.93	1,882,964.18	588,333.42	36.1746894	-107.5340412
5,780.00	90.70	95.42	5,318.13	933.58	482.75	1,882,960.36	588,378.24	36.1746785	-107.5338894
Last SDI Curve MWD Survey									
5,795.00	91.11	95.16	5,317.89	932.20	497.68	1,882,959.02	588,393.18	36.1746747	-107.5338388
First SDI Lateral MWD Survey									
5,845.00	91.17	95.41	5,316.90	927.59	547.46	1,882,954.57	588,442.97	36.1746621	-107.5336702
7" Casing @ 5845' MD - 36.1746621 / -107.5336701									
5,855.00	91.18	95.46	5,316.69	926.64	557.41	1,882,953.65	588,452.93	36.1746595	-107.5336364
5,878.00	91.20	95.58	5,316.21	924.43	580.30	1,882,951.51	588,475.82	36.1746534	-107.5335589
5,958.00	90.13	95.59	5,315.28	916.65	659.91	1,882,943.97	588,555.46	36.1746320	-107.5332891
6,049.00	90.10	98.22	5,315.10	905.71	750.24	1,882,933.31	588,645.82	36.1746020	-107.5329831
6,140.00	90.94	98.77	5,314.28	892.27	840.24	1,882,920.14	588,735.86	36.1745650	-107.5326782
6,232.00	89.87	99.17	5,313.63	877.92	931.11	1,882,906.08	588,826.78	36.1745256	-107.5323703
6,323.00	90.07	99.25	5,313.67	863.36	1,020.94	1,882,891.79	588,916.65	36.1744856	-107.5320659
6,414.00	89.83	98.85	5,313.75	849.04	1,110.81	1,882,877.75	589,006.56	36.1744463	-107.5317614
6,505.00	90.64	98.86	5,313.38	835.03	1,200.72	1,882,864.02	589,096.51	36.1744078	-107.5314568
6,597.00	90.10	98.03	5,312.79	821.52	1,291.72	1,882,850.79	589,187.56	36.1743707	-107.5311485
6,689.00	90.80	99.63	5,312.06	807.40	1,382.62	1,882,836.94	589,278.50	36.1743318	-107.5308405
6,780.00	90.37	101.00	5,311.13	791.11	1,472.14	1,882,820.92	589,368.07	36.1742871	-107.5305372
6,871.00	90.54	100.14	5,310.41	774.42	1,561.60	1,882,804.51	589,457.58	36.1742412	-107.5302341
6,963.00	90.20	99.23	5,309.82	758.94	1,652.28	1,882,789.31	589,548.31	36.1741987	-107.5299268
7,054.00	89.50	99.62	5,310.05	744.04	1,742.05	1,882,774.68	589,638.12	36.1741577	-107.5296227
7,145.00	90.37	99.55	5,310.16	728.89	1,831.78	1,882,759.81	589,727.90	36.1741161	-107.5293187
7,235.00	89.67	98.77	5,310.13	714.56	1,920.63	1,882,745.75	589,816.79	36.1740767	-107.5290176
7,326.00	89.40	97.79	5,310.87	701.46	2,010.68	1,882,732.92	589,906.88	36.1740407	-107.5287125
7,417.00	90.20	97.73	5,311.18	689.17	2,100.85	1,882,720.91	589,997.08	36.1740069	-107.5284071
7,507.00	90.33	97.74	5,310.77	677.06	2,190.03	1,882,709.07	590,086.30	36.1739736	-107.5281049
7,598.00	89.43	98.51	5,310.96	664.19	2,280.11	1,882,696.49	590,176.42	36.1739383	-107.5277997
7,690.00	90.17	99.56	5,311.28	649.75	2,370.97	1,882,682.32	590,267.32	36.1738986	-107.5274919
7,781.00	91.20	99.35	5,310.19	634.80	2,460.72	1,882,667.65	590,357.13	36.1738575	-107.5271877

Company:	WPX Energy	Local Co-ordinate Reference:	Well S Chaco UT #346H - Slot A4
Project:	T22N R7W	TVD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Site:	Chaco 2207-02A	MD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Well:	S Chaco UT #346H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,871.00	88.55	99.28	5,310.39	620.23	2,549.53	1,882,653.35	590,445.98	36.1738174	-107.5268869
7,962.00	89.53	98.89	5,311.91	605.87	2,639.37	1,882,639.26	590,535.86	36.1737780	-107.5265825
8,053.00	90.60	98.47	5,311.81	592.13	2,729.33	1,882,625.81	590,625.86	36.1737402	-107.5262777
8,143.00	89.77	98.98	5,311.52	578.48	2,818.28	1,882,612.43	590,714.86	36.1737027	-107.5259763
8,234.00	90.40	99.46	5,311.38	563.90	2,908.11	1,882,598.12	590,804.73	36.1736626	-107.5256720
8,325.00	89.50	99.48	5,311.46	548.93	2,997.87	1,882,583.43	590,894.53	36.1736214	-107.5253679
8,416.00	90.31	99.35	5,311.61	534.04	3,087.64	1,882,568.82	590,984.35	36.1735805	-107.5250637
8,507.00	90.13	98.95	5,311.26	519.57	3,177.48	1,882,554.62	591,074.24	36.1735407	-107.5247593
8,597.00	89.90	99.43	5,311.24	505.20	3,266.33	1,882,540.52	591,163.12	36.1735012	-107.5244583
8,688.00	89.93	99.25	5,311.37	490.43	3,356.12	1,882,526.03	591,252.96	36.1734606	-107.5241541
8,779.00	89.93	98.48	5,311.49	476.41	3,446.03	1,882,512.28	591,342.92	36.1734221	-107.5238494
8,870.00	90.04	98.73	5,311.51	462.79	3,536.01	1,882,498.94	591,432.93	36.1733846	-107.5235446
8,962.00	89.37	98.24	5,311.98	449.22	3,627.00	1,882,485.64	591,523.97	36.1733473	-107.5232363
9,053.00	89.69	98.82	5,312.73	435.72	3,716.99	1,882,472.42	591,614.00	36.1733102	-107.5229314
9,144.00	89.23	99.76	5,313.59	421.03	3,806.79	1,882,458.01	591,703.84	36.1732698	-107.5226272
9,235.00	89.69	100.40	5,314.45	405.10	3,896.38	1,882,442.36	591,793.48	36.1732260	-107.5223236
9,326.00	89.78	99.26	5,314.87	389.57	3,986.04	1,882,427.10	591,883.19	36.1731833	-107.5220199
9,417.00	88.81	99.96	5,315.99	374.38	4,075.76	1,882,412.18	591,972.95	36.1731416	-107.5217159
9,508.00	88.46	99.87	5,318.15	358.71	4,165.37	1,882,396.79	592,062.61	36.1730985	-107.5214123
9,599.00	88.72	100.40	5,320.39	342.70	4,254.92	1,882,381.06	592,152.22	36.1730545	-107.5211089
9,690.00	89.13	99.22	5,322.10	327.20	4,344.58	1,882,365.83	592,241.91	36.1730118	-107.5208051
9,781.00	89.93	99.99	5,322.85	312.02	4,434.30	1,882,350.93	592,331.68	36.1729701	-107.5205012
9,872.00	90.04	99.08	5,322.87	296.95	4,524.04	1,882,336.13	592,421.47	36.1729287	-107.5201971
9,963.00	89.53	97.99	5,323.21	283.44	4,614.03	1,882,322.90	592,511.50	36.1728915	-107.5198922
10,054.00	89.63	97.32	5,323.88	271.32	4,704.21	1,882,311.05	592,601.72	36.1728582	-107.5195867
10,145.00	89.26	97.15	5,324.76	259.86	4,794.48	1,882,299.87	592,692.03	36.1728266	-107.5192808
10,236.00	89.93	96.70	5,325.40	248.89	4,884.82	1,882,289.18	592,782.39	36.1727965	-107.5189748
10,326.00	88.90	98.03	5,326.32	237.35	4,974.07	1,882,277.91	592,871.68	36.1727647	-107.5186724
10,417.00	89.52	98.38	5,327.58	224.37	5,064.13	1,882,265.20	592,961.78	36.1727290	-107.5183673
10,436.00	89.63	98.19	5,327.72	221.63	5,082.93	1,882,262.52	592,980.59	36.1727215	-107.5183036
Last SDI Lateral MWD Survey									
10,481.00	89.63	98.19	5,328.01	215.22	5,127.47	1,882,256.25	593,025.15	36.1727039	-107.5181527
RSI @ 10,481' MD - 36.1727039 / -107.5181526									
10,497.00	89.63	98.19	5,328.11	212.94	5,143.30	1,882,254.02	593,040.99	36.1726976	-107.5180990
Projection to TD									

Company:	WPX Energy	Local Co-ordinate Reference:	Well S Chaco UT #346H - Slot A4
Project:	T22N R7W	TVD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Site:	Chaco 2207-02A	MD Reference:	GL 7034' & RKB 25' @ 7059.00usft (Aztec 1000)
Well:	S Chaco UT #346H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Grand Junction District

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 #346H - actual wellpath misses target center by 93.63usft at 5472.40usft MD (5248.72 TVD, 955.23 N, 187.73 E) - Point	0.00	0.00	5,211.74	1,036.73	215.24	1,883,062.69	588,110.42	36.1749619	-107.5347958
End 60 deg tan #346H - actual wellpath misses target center by 87.15usft at 5537.98usft MD (5278.05 TVD, 951.51 N, 246.21 E) - Point	0.00	0.00	5,241.74	1,028.10	266.48	1,883,054.21	588,161.69	36.1749382	-107.5346222
TD / PBHL #346H - actual wellpath misses target center by 107.66usft at 10497.00usft MD (5328.11 TVD, 212.94 N, 5143.30 E) - Point	0.00	0.00	5,278.00	191.08	5,236.05	1,882,232.44	593,133.80	36.1726375	-107.5177848
POE #346H - actual wellpath misses target center by 51.26usft at 5879.60usft MD (5316.18 TVD, 924.28 N, 581.89 E) - Point	0.00	0.00	5,327.00	974.13	586.89	1,883,001.23	588,482.26	36.1747900	-107.5335365

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
380.00	379.99	0.21	-2.02	First SDI Surface MWD Survey
4,732.00	4,622.48	926.10	-133.78	Last SDI Surface MWD Survey
4,778.00	4,667.53	935.31	-132.60	First SDI Curve MWD Survey
5,780.00	5,318.13	933.58	482.75	Last SDI Curve MWD Survey
5,795.00	5,317.89	932.20	497.68	First SDI Lateral MWD Survey
5,845.00	5,316.90	927.59	547.46	7" Casing @ 5845' MD
5,845.00	5,316.90	927.59	547.46	36.1746621 / -107.5336701
10,436.00	5,327.72	221.63	5,082.93	Last SDI Lateral MWD Survey
10,481.00	5,328.01	215.22	5,127.47	RSI @ 10,481' MD
10,481.00	5,328.01	215.22	5,127.47	36.1727039 / -107.5181526
10,497.00	5,328.11	212.94	5,143.30	Projection to TD

Checked By: _____ Approved By: _____ Date: _____