

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

AS DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31235	² Pool Code 98088	³ Pool Name CHACO UNIT NE HZ (OIL)
⁴ Property Code 313148	⁵ Property Name CHACO 2306-18M	⁶ Well Number 240H
⁷ GRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC	⁹ Elevation 6938'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	18	23N	6W	4	231	SOUTH	195	WEST	RIO ARriba

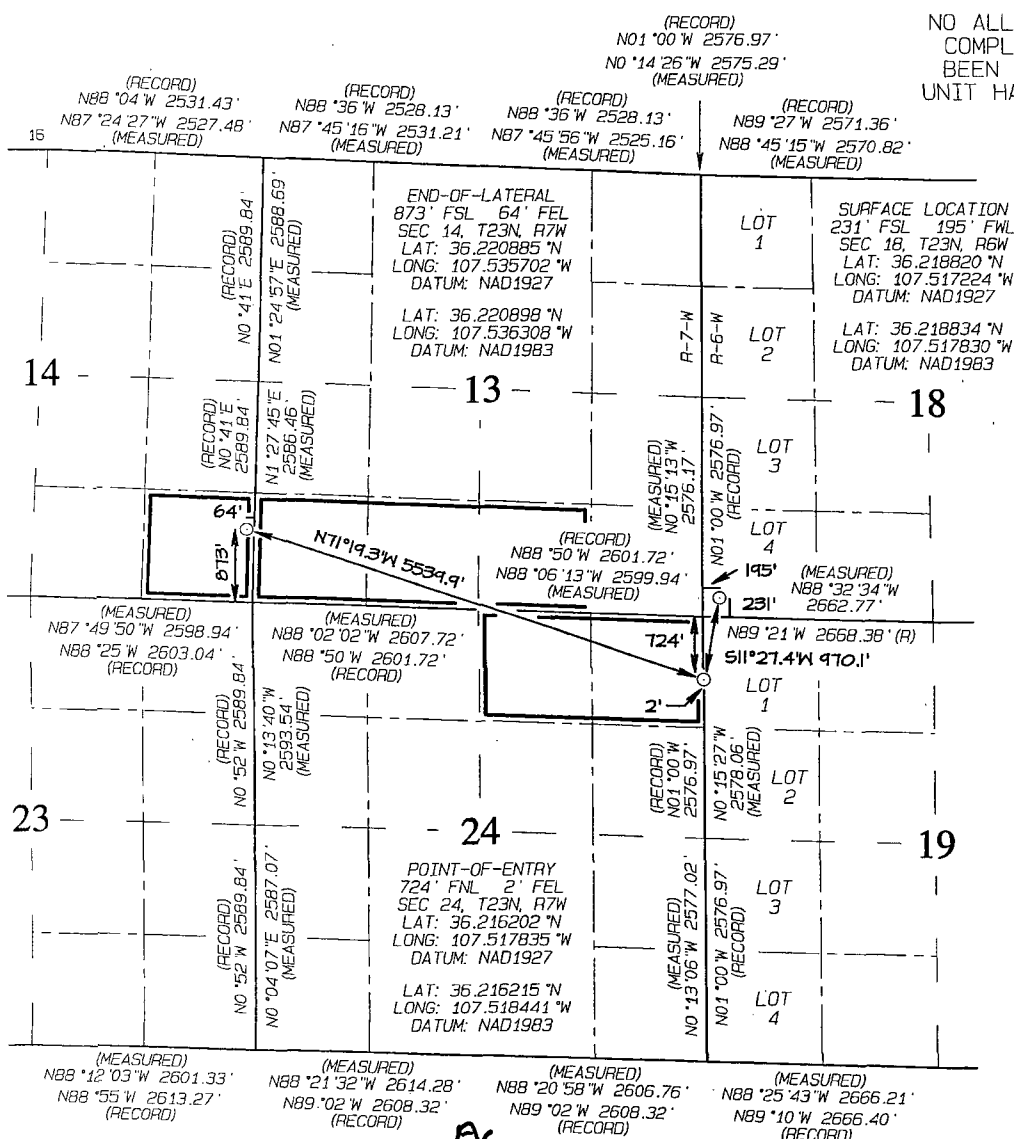
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	14	23N	7W		873	SOUTH	64	EAST	RIO ARriba

¹² Dedicated Acres 240.0	N/2 NE/4 (24) SE/4 SE/4 (14) S/2 SW/4, SW/4 SE/4 (13)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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RECD OCT 1 11
OIL CONS. DIV.

NO ALLOWABLE WILL BE DESIGNATED 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: *Larry Higgins* Date: 9/30/14
LARRY HIGGINS

Printed Name
larry.higgins@wpxenergy.com

E-mail Address

¹⁸ SURVEYOR CERTIFICATION

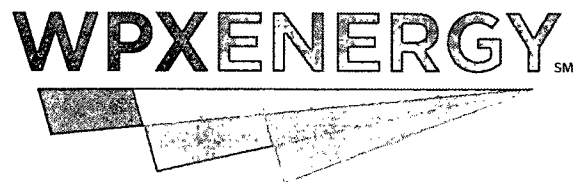
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: SEPTEMBER 9, 2014
Survey Date: DECEMBER 31, 2013

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



WPX Energy Rocky Mountain, LLC

Rio Arriba County, NM NAD27

Chaco 2306-18M

Chaco 2306-18M #240H

OH

Design: OH

Survey Report - Geographic

08 September, 2014

CONFIDENTIAL



www.scientificdrilling.com



Company Name: WPX Energy Rocky Mountain, LLC
 Project: Rio Arriba County, NM NAD27
 Site: Chaco 2306-18M
 Well: Chaco 2306-18M #240H

WPXENERGY

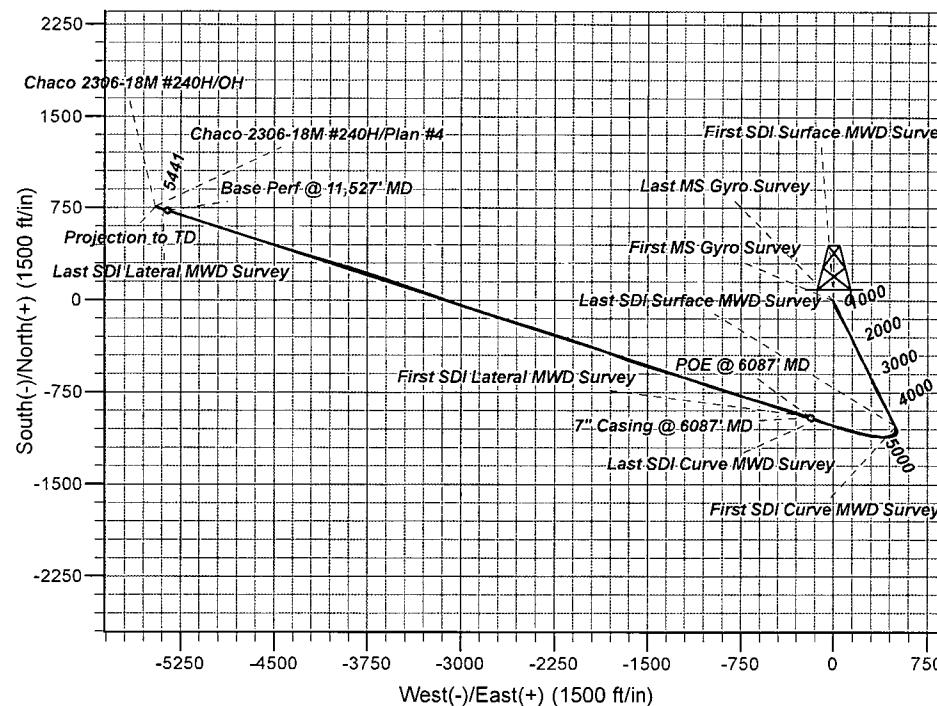
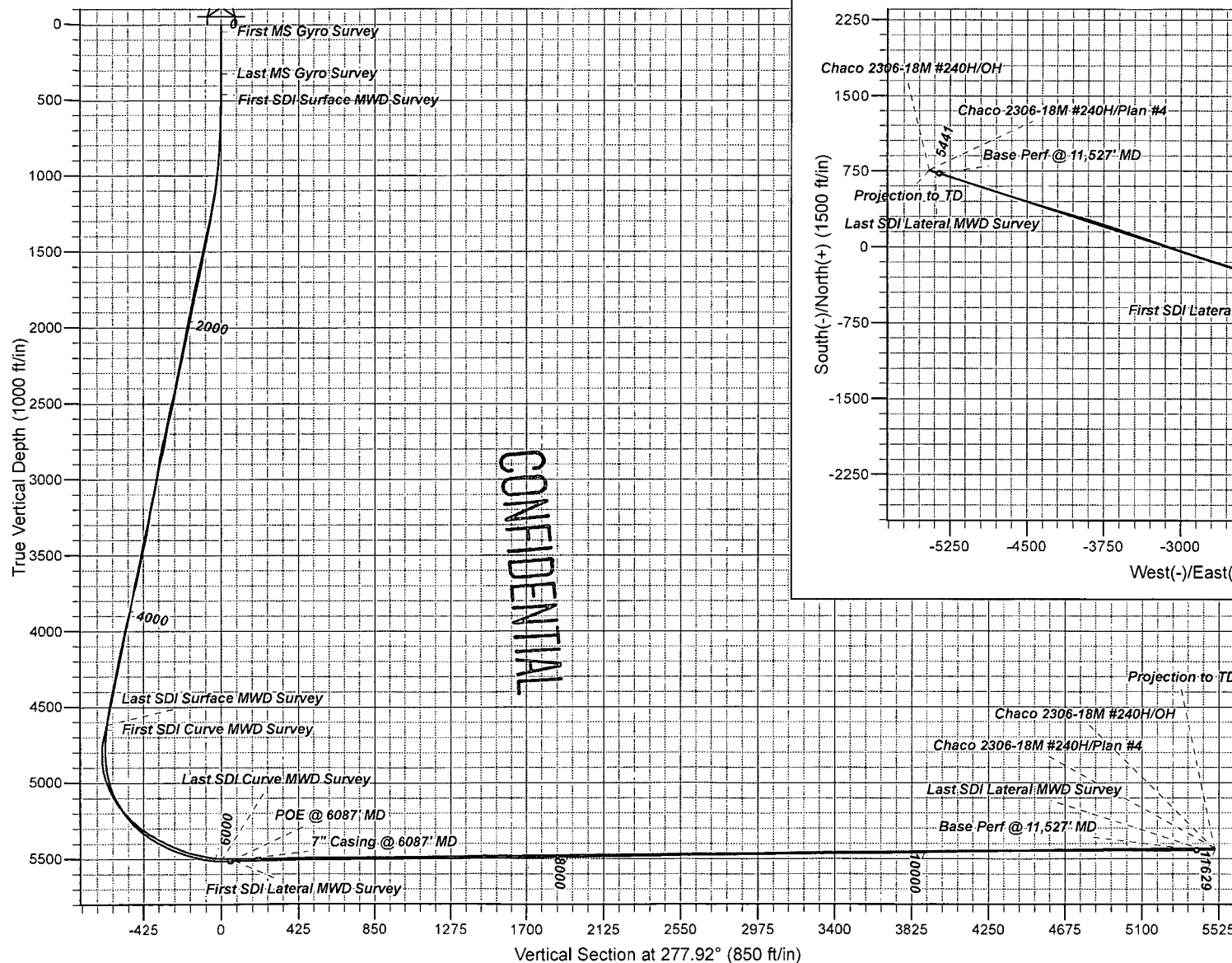


Azimuths to True North
 Magnetic North: 9.42°

Magnetic Field
 Strength: 50066.8snT
 Dip Angle: 63.00°
 Date: 8/19/2014
 Model: BGGM2014

WELL DETAILS: Chaco 2306-18M #240H

		GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)		6938.00	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1901303.05	126198.56	36.2188200	-107.5172200



RCVD OCT 1 '14
OIL CONS. DIV.
DIST. 3

Design: OH (Chaco 2306-18M #240H/OH)
Created By: Janie Collins Date: 12:12, September 08 2014
PROJECT DETAILS: Rio Arriba County, NM NAD27
Geodetic System: US State Plane 1927 (Exact solution) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: New Mexico Central 3002
System Datum: Mean Sea Level Local North: True



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #240H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Site:	Chaco 2306-18M	MD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Well:	Chaco 2306-18M #240H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	Rio Arriba County, NM NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site	Chaco 2306-18M		
Site Position:		Northing:	1,901,303.06 usft
From:	Lat/Long	Easting:	126,198.57 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	36.2188200
		Longitude:	-107.5172200
		Grid Convergence:	-0.75 °

Well	Chaco 2306-18M #240H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	36.2188200
		Longitude:	-107.5172200
		Ground Level:	6,938.00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	BGGM2014	8/19/2014	9.42
			Dip Angle
			(°)
			63.00
			Field Strength
			(nT)
			50,067

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			277.92

Survey Program	Date 9/8/2014		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
14.00	339.00	Survey #1 - Gyro Survey (OH)	Gyro
460.00	4,784.00	Survey #2 - Surface MWD Survey (OH)	MWD SDI
4,815.00	6,035.00	Survey #3 - Curve MWD Survey (OH)	MWD SDI
6,112.00	11,629.00	Survey #4 - Lateral MWD Survey (OH)	MWD SDI
			Description
			MWD - Standard ver 1.0.1
			MWD - Standard ver 1.0.1
			MWD - Standard ver 1.0.1

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting		
(ft)			(ft)			(usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	1,901,303.06	126,198.57	36.2188200	-107.5172200
14.00	0.00	0.00	14.00	0.00	0.00	1,901,303.06	126,198.57	36.2188200	-107.5172200
50.00	0.21	221.58	50.00	-0.05	-0.04	1,901,303.01	126,198.52	36.2188198	-107.5172202
First MS Gyro Survey									
64.00	0.29	221.58	64.00	-0.09	-0.08	1,901,302.96	126,198.48	36.2188197	-107.5172203
114.00	0.32	196.82	114.00	-0.32	-0.21	1,901,302.74	126,198.36	36.2188191	-107.5172207
164.00	0.33	159.03	164.00	-0.59	-0.20	1,901,302.47	126,198.36	36.2188184	-107.5172207
214.00	0.50	164.81	214.00	-0.94	-0.09	1,901,302.12	126,198.47	36.2188174	-107.5172203
264.00	0.55	188.37	263.99	-1.38	-0.07	1,901,301.67	126,198.48	36.2188162	-107.5172203



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #240H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Site:	Chaco 2306-18M	MD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Well:	Chaco 2306-18M #240H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
314.00	0.53	188.70	313.99	-1.85	-0.14	1,901,301.21	126,198.41	36.2188149	-107.5172205
325.00	0.57	183.00	324.99	-1.96	-0.15	1,901,301.10	126,198.40	36.2188146	-107.5172205
Last MS Gyro Survey									
339.00	0.63	176.89	338.99	-2.10	-0.15	1,901,300.96	126,198.39	36.2188142	-107.5172205
460.00	0.77	204.26	459.98	-3.51	-0.44	1,901,299.56	126,198.08	36.2188103	-107.5172215
First SDI Surface MWD Survey									
524.00	1.68	193.85	523.97	-4.81	-0.85	1,901,298.26	126,197.66	36.2188068	-107.5172229
587.00	2.37	180.03	586.93	-7.01	-1.07	1,901,296.06	126,197.41	36.2188007	-107.5172237
650.00	3.42	170.20	649.85	-10.16	-0.75	1,901,292.90	126,197.69	36.2187921	-107.5172226
713.00	4.83	161.10	712.68	-14.52	0.43	1,901,288.53	126,198.81	36.2187801	-107.5172186
776.00	6.50	157.57	775.37	-20.33	2.65	1,901,282.69	126,200.95	36.2187641	-107.5172111
839.00	7.96	158.53	837.87	-27.69	5.61	1,901,275.30	126,203.81	36.2187439	-107.5172010
901.00	9.35	159.33	899.16	-36.39	8.96	1,901,266.55	126,207.05	36.2187200	-107.5171897
965.00	10.27	159.69	962.23	-46.61	12.77	1,901,256.28	126,210.73	36.2186920	-107.5171767
1,027.00	11.44	155.48	1,023.12	-57.39	17.24	1,901,245.45	126,215.06	36.2186623	-107.5171616
1,090.00	12.40	155.35	1,084.76	-69.22	22.66	1,901,233.55	126,220.32	36.2186298	-107.5171432
1,152.00	13.10	151.47	1,145.23	-81.44	28.79	1,901,221.24	126,226.29	36.2185963	-107.5171225
1,244.00	14.29	149.64	1,234.61	-100.40	39.51	1,901,202.15	126,236.76	36.2185442	-107.5170861
1,305.00	14.97	150.79	1,293.64	-113.77	47.16	1,901,188.68	126,244.24	36.2185075	-107.5170602
1,367.00	16.30	154.01	1,353.34	-128.59	54.88	1,901,173.77	126,251.76	36.2184668	-107.5170340
1,427.00	17.54	154.25	1,410.74	-144.30	62.50	1,901,157.96	126,259.17	36.2184236	-107.5170082
1,488.00	17.91	151.84	1,468.85	-160.85	70.92	1,901,141.30	126,267.38	36.2183782	-107.5169797
1,549.00	17.85	151.48	1,526.90	-177.33	79.81	1,901,124.70	126,276.05	36.2183329	-107.5169495
1,609.00	17.68	151.25	1,584.04	-193.40	88.58	1,901,108.52	126,284.61	36.2182888	-107.5169198
1,669.00	16.84	151.13	1,641.34	-209.00	97.16	1,901,092.81	126,292.99	36.2182459	-107.5168907
1,731.00	16.40	150.09	1,700.75	-224.45	105.86	1,901,077.25	126,301.49	36.2182035	-107.5168612
1,792.00	16.27	153.31	1,759.29	-239.55	113.99	1,901,062.04	126,309.42	36.2181620	-107.5168337
1,853.00	16.61	155.59	1,817.79	-255.12	121.43	1,901,046.37	126,316.66	36.2181192	-107.5168084
1,914.00	16.24	154.99	1,876.30	-270.79	128.64	1,901,030.61	126,323.66	36.2180762	-107.5167840
1,974.00	16.90	156.54	1,933.81	-286.39	135.66	1,901,014.91	126,330.47	36.2180333	-107.5167602
2,035.00	17.96	157.69	1,992.01	-303.23	142.76	1,900,997.99	126,337.35	36.2179871	-107.5167361
2,096.00	17.67	156.28	2,050.09	-320.41	150.06	1,900,980.72	126,344.42	36.2179399	-107.5167114
2,157.00	17.05	155.07	2,108.31	-336.99	157.55	1,900,964.04	126,351.70	36.2178943	-107.5166860
2,218.00	16.37	155.02	2,166.73	-352.89	164.95	1,900,948.04	126,358.89	36.2178507	-107.5166609
2,279.00	16.50	155.27	2,225.24	-368.55	172.20	1,900,932.29	126,365.94	36.2178076	-107.5166363
2,342.00	16.77	153.53	2,285.60	-384.81	180.00	1,900,915.92	126,373.52	36.2177630	-107.5166099
2,402.00	17.15	154.32	2,342.99	-400.54	187.69	1,900,900.10	126,381.01	36.2177198	-107.5165839
2,462.00	18.05	155.54	2,400.18	-416.97	195.37	1,900,883.57	126,388.47	36.2176747	-107.5165578
2,524.00	18.84	156.71	2,459.00	-434.91	203.31	1,900,865.53	126,396.17	36.2176254	-107.5165309
2,585.00	18.51	154.35	2,516.79	-452.68	211.39	1,900,847.65	126,404.03	36.2175766	-107.5165035
2,646.00	18.41	150.86	2,574.65	-469.83	220.28	1,900,830.39	126,412.68	36.2175295	-107.5164734
2,708.00	17.76	150.14	2,633.59	-486.58	229.75	1,900,813.52	126,421.94	36.2174835	-107.5164413
2,771.00	16.51	150.40	2,693.79	-502.70	238.96	1,900,797.28	126,430.93	36.2174392	-107.5164101
2,835.00	15.16	150.36	2,755.36	-517.88	247.59	1,900,781.99	126,439.36	36.2173975	-107.5163808
2,898.00	15.42	150.93	2,816.13	-532.36	255.73	1,900,767.40	126,447.32	36.2173577	-107.5163532
2,961.00	15.38	151.58	2,876.87	-547.03	263.78	1,900,752.63	126,455.17	36.2173174	-107.5163260
3,025.00	14.84	155.60	2,938.66	-561.95	271.20	1,900,737.61	126,462.40	36.2172764	-107.5163008
3,088.00	15.02	156.81	2,999.53	-576.80	277.75	1,900,722.67	126,468.75	36.2172356	-107.5162786
3,151.00	15.38	157.33	3,060.33	-592.02	284.18	1,900,707.38	126,474.99	36.2171938	-107.5162568
3,214.00	15.81	156.93	3,121.01	-607.62	290.77	1,900,691.69	126,481.37	36.2171510	-107.5162345
3,277.00	16.10	159.02	3,181.58	-623.67	297.26	1,900,675.55	126,487.65	36.2171069	-107.5162125
3,340.00	16.67	157.54	3,242.02	-640.18	303.84	1,900,658.96	126,494.01	36.2170615	-107.5161902
3,402.00	17.15	158.35	3,301.34	-656.90	310.61	1,900,642.16	126,500.56	36.2170156	-107.5161672
3,465.00	17.79	156.77	3,361.43	-674.37	317.83	1,900,624.59	126,507.56	36.2169676	-107.5161427
3,528.00	17.86	156.04	3,421.41	-692.05	325.55	1,900,606.82	126,515.04	36.2169191	-107.5161166



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #240H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Site:	Chaco 2306-18M	MD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Well:	Chaco 2306-18M #240H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,591.00	17.27	155.09	3,481.47	-709.36	333.41	1,900,589.41	126,522.68	36.2168715	-107.5160899
3,654.00	17.95	153.93	3,541.52	-726.56	341.62	1,900,572.10	126,530.66	36.2168243	-107.5160621
3,717.00	18.93	153.30	3,601.29	-744.41	350.48	1,900,554.13	126,539.28	36.2167753	-107.5160321
3,780.00	18.60	154.50	3,660.94	-762.61	359.39	1,900,535.82	126,547.96	36.2167253	-107.5160019
3,843.00	17.82	154.00	3,720.78	-780.34	367.94	1,900,517.98	126,556.28	36.2166766	-107.5159729
3,905.00	18.23	152.37	3,779.74	-797.46	376.60	1,900,500.75	126,564.71	36.2166295	-107.5159435
3,967.00	18.28	152.04	3,838.62	-814.64	385.66	1,900,483.45	126,573.54	36.2165823	-107.5159129
4,030.00	18.43	151.70	3,898.41	-832.13	395.01	1,900,465.83	126,582.67	36.2165343	-107.5158812
4,093.00	17.94	149.93	3,958.27	-849.30	404.59	1,900,448.54	126,592.02	36.2164871	-107.5158487
4,155.00	16.47	149.42	4,017.49	-865.13	413.85	1,900,432.59	126,601.07	36.2164437	-107.5158173
4,218.00	16.49	150.34	4,077.90	-880.59	422.82	1,900,417.02	126,609.84	36.2164012	-107.5157869
4,281.00	16.35	151.56	4,138.33	-896.16	431.46	1,900,401.34	126,618.28	36.2163584	-107.5157576
4,344.00	16.89	155.14	4,198.70	-912.26	439.54	1,900,385.14	126,626.14	36.2163142	-107.5157302
4,406.00	18.05	153.40	4,257.84	-929.02	447.62	1,900,368.27	126,634.01	36.2162682	-107.5157028
4,469.00	18.12	154.17	4,317.73	-946.56	456.26	1,900,350.61	126,642.42	36.2162200	-107.5156735
4,532.00	17.12	156.46	4,377.77	-963.88	464.23	1,900,333.19	126,650.16	36.2161724	-107.5156465
4,594.00	16.03	154.92	4,437.20	-980.00	471.51	1,900,316.98	126,657.23	36.2161281	-107.5156219
4,657.00	14.94	154.18	4,497.91	-995.19	478.73	1,900,301.69	126,664.25	36.2160864	-107.5155974
4,721.00	13.40	154.44	4,559.96	-1,009.31	485.53	1,900,287.49	126,670.86	36.2160476	-107.5155744
4,784.00	12.11	155.87	4,621.40	-1,021.93	491.38	1,900,274.80	126,676.54	36.2160130	-107.5155545
Last SDI Surface MWD Survey									
4,815.00	11.17	156.65	4,651.77	-1,027.65	493.90	1,900,269.04	126,678.99	36.2159972	-107.5155460
First SDI Curve MWD Survey									
4,846.00	10.38	163.24	4,682.22	-1,033.08	495.89	1,900,263.58	126,680.91	36.2159823	-107.5155392
4,878.00	10.35	173.37	4,713.70	-1,038.70	497.05	1,900,257.95	126,682.00	36.2159669	-107.5155353
4,909.00	10.48	183.04	4,744.19	-1,044.28	497.23	1,900,252.37	126,682.10	36.2159516	-107.5155347
4,940.00	10.97	187.09	4,774.65	-1,050.02	496.71	1,900,246.63	126,681.51	36.2159358	-107.5155364
4,972.00	11.76	192.08	4,806.03	-1,056.23	495.66	1,900,240.44	126,680.37	36.2159187	-107.5155400
5,003.00	12.15	203.74	4,836.36	-1,062.31	493.68	1,900,234.39	126,678.32	36.2159020	-107.5155467
5,034.00	11.52	209.57	4,866.70	-1,067.99	490.84	1,900,228.75	126,675.41	36.2158865	-107.5155563
5,066.00	12.75	216.41	4,897.99	-1,073.61	487.17	1,900,223.17	126,671.66	36.2158710	-107.5155688
5,097.00	13.78	222.42	4,928.16	-1,079.09	482.64	1,900,217.75	126,667.07	36.2158560	-107.5155841
5,129.00	15.39	230.12	4,959.13	-1,084.63	476.81	1,900,212.29	126,661.16	36.2158408	-107.5156039
5,160.00	16.27	234.88	4,988.96	-1,089.76	470.11	1,900,207.25	126,654.39	36.2158266	-107.5156266
5,191.00	17.85	240.67	5,018.59	-1,094.59	462.41	1,900,202.52	126,646.63	36.2158134	-107.5156527
5,222.00	19.06	247.27	5,048.00	-1,098.87	453.60	1,900,198.35	126,637.76	36.2158016	-107.5156826
5,253.00	22.56	256.92	5,076.98	-1,102.18	443.13	1,900,195.19	126,627.25	36.2157925	-107.5157181
5,284.00	25.62	262.11	5,105.28	-1,104.44	430.70	1,900,193.08	126,614.79	36.2157863	-107.5157602
5,316.00	26.85	263.26	5,133.99	-1,106.24	416.67	1,900,191.47	126,600.74	36.2157814	-107.5158078
5,347.00	27.87	266.25	5,161.52	-1,107.54	402.48	1,900,190.36	126,586.54	36.2157778	-107.5158558
5,377.00	30.16	269.58	5,187.75	-1,108.05	387.95	1,900,190.03	126,572.00	36.2157764	-107.5159051
5,409.00	32.01	270.03	5,215.16	-1,108.10	371.43	1,900,190.20	126,555.48	36.2157763	-107.5159611
5,440.00	34.37	272.27	5,241.10	-1,107.75	354.46	1,900,190.77	126,538.52	36.2157772	-107.5160186
5,472.00	37.57	275.05	5,267.00	-1,106.54	335.71	1,900,192.23	126,519.79	36.2157806	-107.5160822
5,503.00	41.94	277.76	5,290.82	-1,104.30	316.02	1,900,194.72	126,500.13	36.2157867	-107.5161489
5,535.00	46.05	279.87	5,313.84	-1,100.88	294.07	1,900,198.43	126,478.22	36.2157961	-107.5162233
5,566.00	48.78	281.66	5,334.82	-1,096.61	271.65	1,900,202.99	126,455.86	36.2158078	-107.5162993
5,596.00	50.45	282.02	5,354.25	-1,091.92	249.29	1,900,207.97	126,433.56	36.2158207	-107.5163751
5,628.00	52.85	282.94	5,374.11	-1,086.50	224.79	1,900,213.72	126,409.13	36.2158356	-107.5164581
5,659.00	56.02	283.33	5,392.14	-1,080.77	200.23	1,900,219.77	126,384.66	36.2158514	-107.5165414
5,690.00	57.94	283.48	5,409.03	-1,074.74	174.95	1,900,226.12	126,359.46	36.2158679	-107.5166271
5,722.00	60.00	284.55	5,425.52	-1,068.10	148.35	1,900,233.11	126,332.94	36.2158862	-107.5167172
5,753.00	63.05	286.65	5,440.30	-1,060.76	122.11	1,900,240.79	126,306.80	36.2159063	-107.5168062
5,784.00	66.04	288.26	5,453.63	-1,052.37	95.41	1,900,249.54	126,280.22	36.2159294	-107.5168966
5,816.00	68.19	288.47	5,466.07	-1,043.08	67.44	1,900,259.19	126,252.36	36.2159549	-107.5169915



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #240H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Site:	Chaco 2306-18M	MD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Well:	Chaco 2306-18M #240H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,847.00	70.45	288.55	5,477.02	-1,033.87	39.94	1,900,268.76	126,224.99	36.2159802	-107.5170847
5,878.00	73.60	289.89	5,486.58	-1,024.16	12.10	1,900,278.83	126,197.28	36.2160068	-107.5171790
5,910.00	75.54	290.26	5,495.10	-1,013.57	-16.87	1,900,289.79	126,168.45	36.2160359	-107.5172772
5,941.00	77.73	290.00	5,502.26	-1,003.19	-45.19	1,900,300.54	126,140.27	36.2160644	-107.5173732
5,972.00	80.47	290.27	5,508.12	-992.72	-73.77	1,900,311.39	126,111.83	36.2160932	-107.5174701
6,004.00	85.46	290.27	5,512.04	-981.72	-103.55	1,900,322.78	126,082.19	36.2161234	-107.5175710
6,035.00	89.23	289.59	5,513.48	-971.16	-132.66	1,900,333.71	126,053.23	36.2161524	-107.5176697
Last SDI Curve MWD Survey									
6,087.00	90.75	290.65	5,513.49	-953.28	-181.48	1,900,352.24	126,004.64	36.2162015	-107.5178352
POE @ 6087' MD - 7" Casing @ 6087' MD									
6,112.00	91.48	291.16	5,513.00	-944.36	-204.83	1,900,361.46	125,981.41	36.2162260	-107.5179143
First SDI Lateral MWD Survey									
6,212.00	91.38	287.55	5,510.50	-911.23	-299.13	1,900,395.81	125,887.55	36.2163170	-107.5182340
6,273.00	91.84	286.59	5,508.79	-893.33	-357.42	1,900,414.47	125,829.50	36.2163662	-107.5184315
6,334.00	91.07	286.25	5,507.24	-876.10	-415.92	1,900,432.47	125,771.24	36.2164135	-107.5186298
6,396.00	90.81	287.00	5,506.22	-858.36	-475.32	1,900,450.98	125,712.07	36.2164623	-107.5188311
6,456.00	91.21	286.62	5,505.17	-841.01	-532.74	1,900,469.08	125,654.88	36.2165099	-107.5190258
6,517.00	89.96	286.72	5,504.54	-823.51	-591.18	1,900,487.34	125,596.68	36.2165580	-107.5192239
6,578.00	90.54	286.16	5,504.28	-806.25	-649.68	1,900,505.37	125,538.41	36.2166054	-107.5194222
6,638.00	91.01	286.03	5,503.47	-789.62	-707.32	1,900,522.75	125,480.99	36.2166511	-107.5196175
6,698.00	90.34	286.66	5,502.76	-772.73	-764.89	1,900,540.39	125,423.64	36.2166974	-107.5198127
6,761.00	90.81	286.93	5,502.13	-754.53	-825.20	1,900,559.38	125,363.57	36.2167474	-107.5200171
6,821.00	90.10	287.37	5,501.65	-736.84	-882.53	1,900,577.82	125,306.48	36.2167960	-107.5202114
6,882.00	90.74	286.86	5,501.20	-718.89	-940.83	1,900,596.53	125,248.42	36.2168453	-107.5204090
6,943.00	91.01	288.75	5,500.27	-700.24	-998.90	1,900,615.93	125,190.60	36.2168965	-107.5206059
7,003.00	91.01	289.70	5,499.21	-680.49	-1,055.54	1,900,636.43	125,134.22	36.2169508	-107.5207979
7,064.00	91.85	289.38	5,497.69	-660.09	-1,113.01	1,900,657.57	125,077.03	36.2170068	-107.5209926
7,125.00	89.78	288.31	5,496.82	-640.39	-1,170.73	1,900,678.02	125,019.57	36.2170609	-107.5211883
7,186.00	89.97	287.60	5,496.96	-621.59	-1,228.76	1,900,697.59	124,961.79	36.2171126	-107.5213850
7,247.00	89.96	286.46	5,496.99	-603.72	-1,287.08	1,900,716.21	124,903.70	36.2171616	-107.5215827
7,308.00	90.37	285.98	5,496.82	-586.68	-1,345.66	1,900,734.01	124,845.36	36.2172084	-107.5217812
7,371.00	89.96	286.81	5,496.64	-568.90	-1,406.09	1,900,752.58	124,785.16	36.2172573	-107.5219861
7,431.00	90.17	286.13	5,496.57	-551.89	-1,463.63	1,900,770.35	124,727.85	36.2173040	-107.5221811
7,491.00	90.40	286.64	5,496.27	-534.96	-1,521.19	1,900,788.02	124,670.52	36.2173505	-107.5223762
7,553.00	91.91	288.67	5,495.02	-516.17	-1,580.26	1,900,807.59	124,611.70	36.2174021	-107.5225764
7,614.00	91.25	289.50	5,493.34	-496.23	-1,637.88	1,900,828.28	124,554.34	36.2174568	-107.5227717
7,675.00	91.48	290.04	5,491.89	-475.60	-1,695.27	1,900,849.65	124,497.23	36.2175135	-107.5229663
7,738.00	91.18	290.97	5,490.42	-453.54	-1,754.26	1,900,872.49	124,438.53	36.2175741	-107.5231662
7,800.00	90.44	291.48	5,489.55	-431.10	-1,812.05	1,900,895.68	124,381.04	36.2176357	-107.5233621
7,863.00	90.44	290.93	5,489.06	-408.31	-1,870.78	1,900,919.23	124,322.61	36.2176983	-107.5235612
7,926.00	90.17	289.67	5,488.73	-386.45	-1,929.87	1,900,941.86	124,263.82	36.2177583	-107.5237615
7,988.00	89.96	289.10	5,488.66	-365.87	-1,988.35	1,900,963.20	124,205.61	36.2178148	-107.5239597
8,051.00	90.27	288.52	5,488.53	-345.56	-2,047.99	1,900,984.29	124,146.24	36.2178706	-107.5241619
8,114.00	91.31	288.16	5,487.66	-325.74	-2,107.78	1,901,004.89	124,086.72	36.2179250	-107.5243645
8,178.00	92.25	288.00	5,485.67	-305.89	-2,168.59	1,901,025.54	124,026.17	36.2179796	-107.5245707
8,241.00	91.35	287.84	5,483.69	-286.51	-2,228.50	1,901,045.70	123,966.52	36.2180328	-107.5247737
8,304.00	91.55	287.95	5,482.10	-267.16	-2,288.44	1,901,065.83	123,906.84	36.2180859	-107.5249769
8,367.00	91.92	287.16	5,480.19	-248.17	-2,348.47	1,901,085.61	123,847.06	36.2181381	-107.5251804
8,430.00	90.98	287.95	5,478.60	-229.17	-2,408.52	1,901,105.38	123,787.26	36.2181902	-107.5253839
8,492.00	91.18	287.52	5,477.43	-210.29	-2,467.56	1,901,125.04	123,728.47	36.2182421	-107.5255841
8,556.00	90.13	287.52	5,476.70	-191.03	-2,528.59	1,901,145.10	123,667.70	36.2182950	-107.5257909
8,619.00	90.78	287.43	5,476.20	-172.11	-2,588.68	1,901,164.80	123,607.87	36.2183469	-107.5259946
8,682.00	91.04	286.79	5,475.20	-153.58	-2,648.88	1,901,184.12	123,547.91	36.2183978	-107.5261987
8,744.00	90.33	287.87	5,474.46	-135.11	-2,708.06	1,901,203.36	123,488.98	36.2184485	-107.5263993
8,807.00	91.31	287.48	5,473.56	-115.98	-2,768.08	1,901,223.26	123,429.21	36.2185010	-107.5266027

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #240H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Site:	Chaco 2306-18M	MD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Well:	Chaco 2306-18M #240H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,871.00	91.71	287.30	5,471.87	-96.86	-2,829.13	1,901,243.18	123,368.41	36.2185535	-107.5268097
8,933.00	90.44	288.04	5,470.71	-78.05	-2,888.20	1,901,262.77	123,309.60	36.2186052	-107.5270099
8,996.00	91.32	288.05	5,469.74	-58.53	-2,948.09	1,901,283.06	123,249.97	36.2186588	-107.5272129
9,059.00	90.40	289.25	5,468.79	-38.39	-3,007.77	1,901,303.98	123,190.55	36.2187141	-107.5274152
9,122.00	90.88	288.67	5,468.09	-17.92	-3,067.35	1,901,325.23	123,131.25	36.2187703	-107.5276172
9,185.00	89.93	289.13	5,467.64	2.48	-3,126.95	1,901,346.41	123,071.92	36.2188263	-107.5278192
9,248.00	90.70	288.89	5,467.30	23.00	-3,186.52	1,901,367.71	123,012.63	36.2188827	-107.5280211
9,311.00	91.18	289.08	5,466.26	43.50	-3,246.08	1,901,388.98	122,953.34	36.2189390	-107.5282230
9,374.00	90.30	290.35	5,465.45	64.75	-3,305.38	1,901,411.00	122,894.32	36.2189973	-107.5284241
9,437.00	90.30	289.67	5,465.12	86.30	-3,364.58	1,901,433.33	122,835.41	36.2190565	-107.5286247
9,500.00	90.27	289.94	5,464.81	107.65	-3,423.85	1,901,455.45	122,776.42	36.2191151	-107.5288256
9,563.00	90.27	289.79	5,464.51	129.06	-3,483.10	1,901,477.63	122,717.46	36.2191739	-107.5290265
9,626.00	90.03	289.37	5,464.34	150.17	-3,542.46	1,901,499.51	122,658.38	36.2192319	-107.5292277
9,688.00	90.50	288.79	5,464.06	170.44	-3,601.05	1,901,520.55	122,600.06	36.2192875	-107.5294263
9,752.00	91.01	288.75	5,463.21	191.03	-3,661.64	1,901,541.93	122,539.74	36.2193440	-107.5296317
9,814.00	91.48	288.07	5,461.87	210.60	-3,720.45	1,901,562.27	122,481.19	36.2193978	-107.5298311
9,877.00	90.87	288.30	5,460.58	230.26	-3,780.29	1,901,582.71	122,421.61	36.2194518	-107.5300339
9,940.00	90.50	287.18	5,459.82	249.46	-3,840.29	1,901,602.68	122,361.87	36.2195045	-107.5302373
10,003.00	90.30	286.17	5,459.38	267.53	-3,900.64	1,901,621.55	122,301.76	36.2195541	-107.5304418
10,064.00	92.02	286.29	5,458.15	284.58	-3,959.20	1,901,639.36	122,243.44	36.2196009	-107.5306403
10,127.00	92.11	285.54	5,455.88	301.84	-4,019.74	1,901,657.41	122,183.12	36.2196483	-107.5308456
10,190.00	90.91	286.63	5,454.22	319.29	-4,080.25	1,901,675.65	122,122.85	36.2196962	-107.5310507
10,253.00	90.47	287.16	5,453.46	337.60	-4,140.53	1,901,694.74	122,062.81	36.2197465	-107.5312550
10,316.00	91.61	286.91	5,452.32	356.05	-4,200.75	1,901,713.98	122,002.84	36.2197971	-107.5314592
10,380.00	92.29	286.80	5,450.14	374.60	-4,261.97	1,901,733.33	121,941.87	36.2198480	-107.5316667
10,443.00	90.13	286.46	5,448.81	392.62	-4,322.32	1,901,752.14	121,881.76	36.2198975	-107.5318712
10,506.00	91.58	286.82	5,447.87	410.66	-4,382.67	1,901,770.96	121,821.65	36.2199470	-107.5320758
10,569.00	90.34	288.04	5,446.81	429.53	-4,442.76	1,901,790.61	121,761.81	36.2199988	-107.5322795
10,632.00	89.09	287.76	5,447.12	448.89	-4,502.71	1,901,810.76	121,702.12	36.2200520	-107.5324828
10,695.00	89.43	287.11	5,447.94	467.76	-4,562.81	1,901,830.42	121,642.27	36.2201038	-107.5326865
10,759.00	90.04	287.34	5,448.23	486.72	-4,623.94	1,901,850.17	121,581.39	36.2201558	-107.5328937
10,822.00	89.73	288.33	5,448.36	506.01	-4,683.91	1,901,870.24	121,521.68	36.2202088	-107.5330970
10,885.00	90.17	288.08	5,448.42	525.69	-4,743.76	1,901,890.71	121,462.09	36.2202629	-107.5332999
10,948.00	90.33	287.83	5,448.14	545.11	-4,803.69	1,901,910.91	121,402.42	36.2203162	-107.5335030
11,011.00	90.74	287.69	5,447.55	564.33	-4,863.69	1,901,930.91	121,342.68	36.2203689	-107.5337064
11,074.00	89.97	288.81	5,447.16	584.06	-4,923.51	1,901,951.42	121,283.12	36.2204231	-107.5339092
11,136.00	89.97	288.12	5,447.19	603.69	-4,982.32	1,901,971.82	121,224.57	36.2204770	-107.5341086
11,199.00	90.98	288.45	5,446.67	623.46	-5,042.14	1,901,992.36	121,165.02	36.2205313	-107.5343113
11,262.00	89.60	288.56	5,446.35	643.45	-5,101.88	1,902,013.14	121,105.55	36.2205861	-107.5345138
11,325.00	90.04	288.75	5,446.55	663.61	-5,161.57	1,902,034.07	121,046.12	36.2206415	-107.5347162
11,388.00	90.47	287.31	5,446.27	683.10	-5,221.47	1,902,054.35	120,986.48	36.2206950	-107.5349193
11,451.00	91.61	287.28	5,445.13	701.83	-5,281.61	1,902,073.86	120,926.59	36.2207464	-107.5351231
11,515.00	90.91	286.41	5,443.72	720.37	-5,342.85	1,902,093.20	120,866.60	36.2207973	-107.5353307
11,527.00	91.00	286.34	5,443.52	723.76	-5,354.36	1,902,096.73	120,854.13	36.2208066	-107.5353697
Base Perf @ 11,527' MD									
11,564.00	91.28	286.14	5,442.78	734.10	-5,389.88	1,902,107.54	120,818.75	36.2208350	-107.5354901
Last SDI Lateral MWD Survey									
11,629.00	91.28	286.14	5,441.33	752.17	-5,452.30	1,902,126.42	120,756.57	36.2208846	-107.5357017
Projection to TD									



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #240H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Site:	Chaco 2306-18M	MD Reference:	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)
Well:	Chaco 2306-18M #240H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
50.00	50.00	-0.05	-0.04	First MS Gyro Survey
325.00	324.99	-1.96	-0.15	Last MS Gyro Survey
460.00	459.98	-3.51	-0.44	First SDI Surface MWD Survey
4,784.00	4,621.40	-1,021.93	491.38	Last SDI Surface MWD Survey
4,815.00	4,651.77	-1,027.65	493.90	First SDI Curve MWD Survey
6,035.00	5,513.48	-971.16	-132.66	Last SDI Curve MWD Survey
6,087.00	5,513.49	-953.28	-181.48	POE @ 6087' MD
6,087.00	5,513.49	-953.28	-181.48	7" Casing @ 6087' MD
6,112.00	5,513.00	-944.36	-204.83	First SDI Lateral MWD Survey
11,527.00	5,443.52	723.76	-5,354.36	Base Perf @ 11,527' MD
11,564.00	5,442.78	734.10	-5,389.88	Last SDI Lateral MWD Survey
11,629.00	5,441.33	752.17	-5,452.30	Projection to TD

Checked By:	_____	Approved By:	_____	Date:	_____
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