

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) 476-3452

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

CONFIDENTIAL

¹ API Number 30-039-31237	² Pool Code 98088	³ Pool Name CHACO UNIT NE HZ (OIL)
⁴ Property Code 313148	⁵ Property Name CHACO 2306-18M	⁶ Weil Number 292H
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	275	SOUTH	197	WEST	RIO ARriba

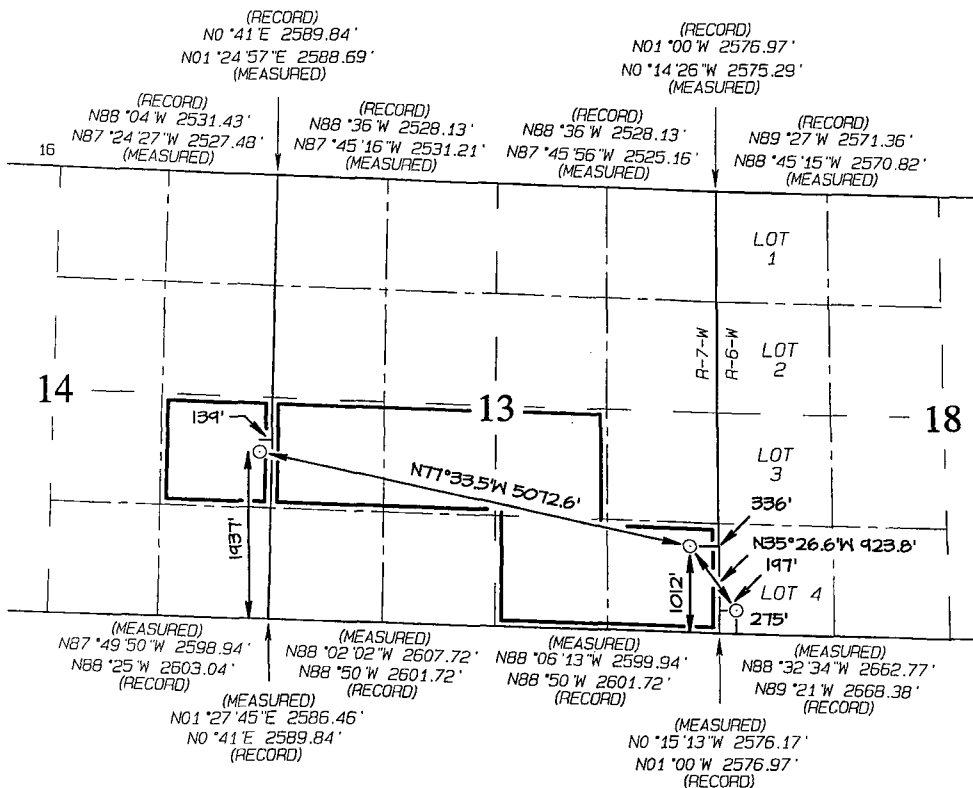
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	14	23N	7W		1937	SOUTH	139	EAST	RIO ARriba

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

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 **DIST. 3**



END-OF-LATERAL
1937' FSL 139' FEL
SECTION 14, T23N, R7W
LAT: 36.223811°N
LONG: 107.535910°W
DATUM: NAD1927

LAT: 36.223824°N
LONG: 107.536516°W
DATUM: NAD1983

POINT-OF-ENTRY
1012' FSL 336' FEL
SECTION 13, T23N, R7W
LAT: 36.220988°N
LONG: 107.519071°W
DATUM: NAD1927

LAT: 36.221002°N
LONG: 107.519677°W
DATUM: NAD1983

SURFACE LOCATION
275' FSL 197' FWL
SECTION 18, T23N, R6W
LAT: 36.218941°N
LONG: 107.517222°W
DATUM: NAD1927

LAT: 36.218954°N
LONG: 107.517828°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 herebefore entered by the division.

Signature *Larry Higgins* Date *9/30/14*

Printed Name
LARRY HIGGINS
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: AUGUST 11, 2014
Survey Date: DECEMBER 31, 2013

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269

Ar



Company Name: WPX Energy Rocky Mountain, LLC
 Project: Rio Arriba County, NM NAD27
 Site: Chaco 2306-18M
 Well: Chaco 2306-18M #292H

WPXENERGY

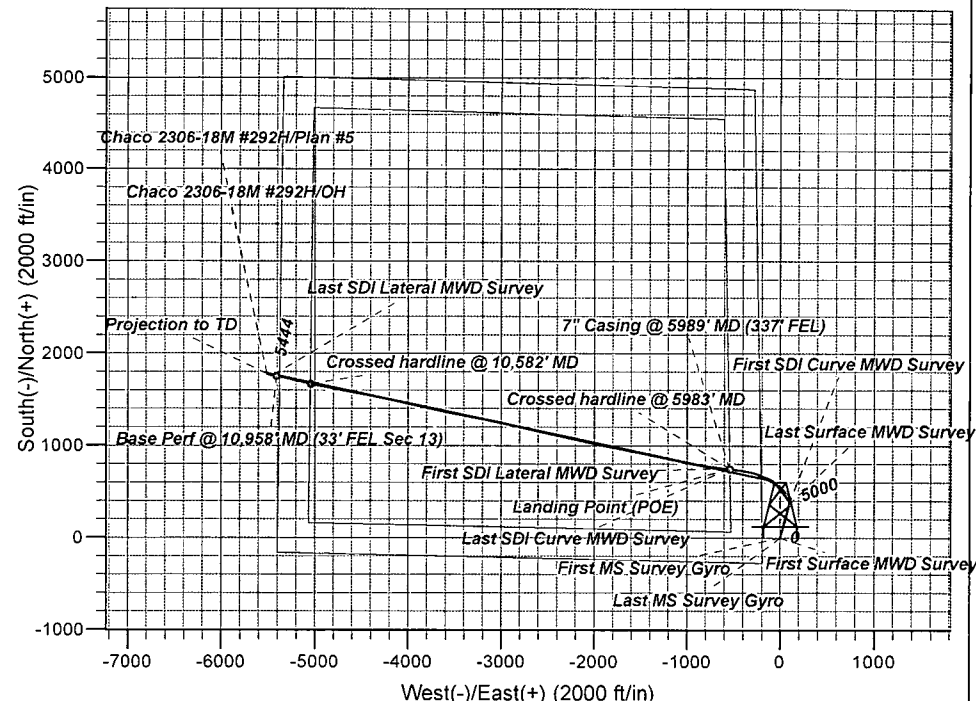
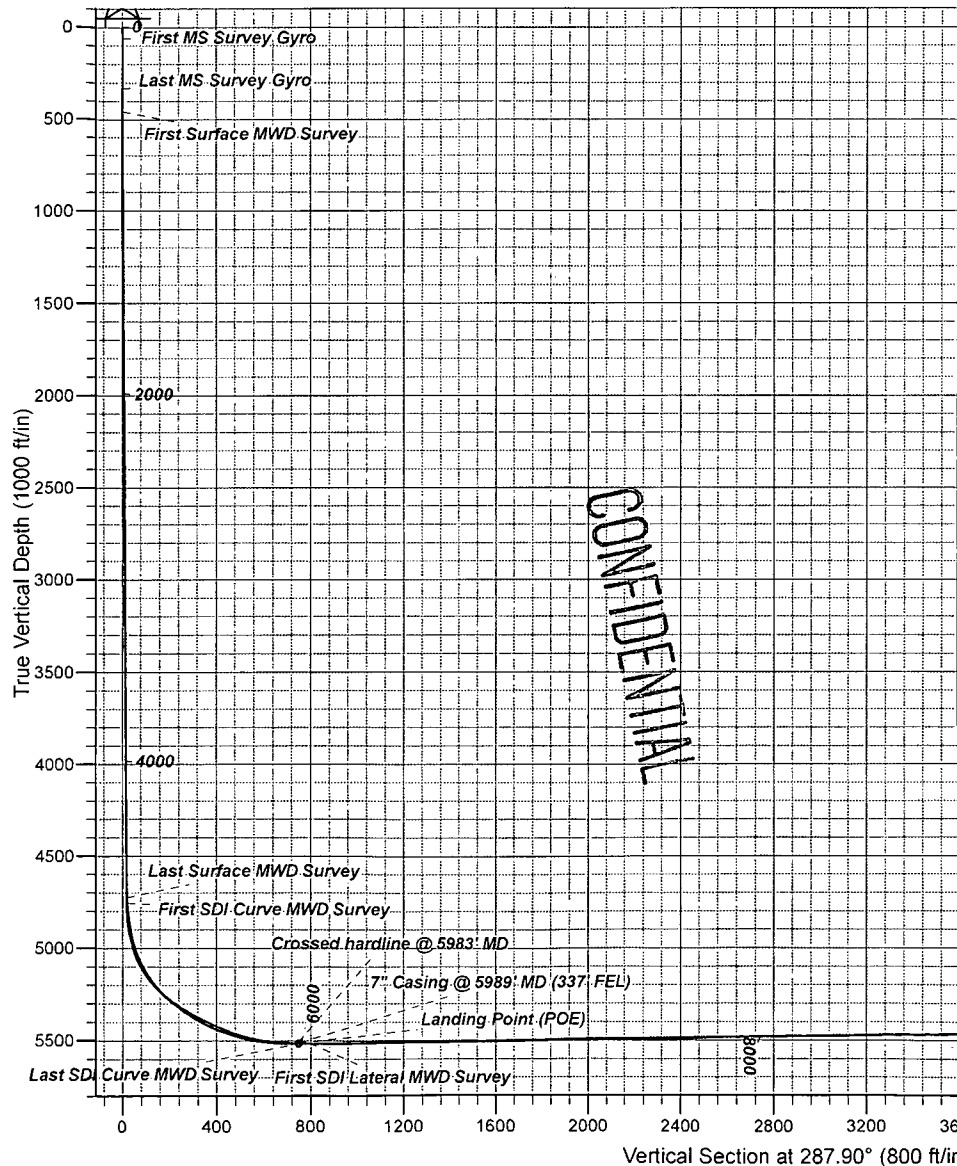


Azimuths to True North
 Magnetic North: 9.43°

Magnetic Field
 Strength: 50079.5nT
 Dip Angle: 63.00°
 Date: 7/14/2014
 Model: BGGM2014

WELL DETAILS: Chaco 2306-18M #292H

+N/-S	+E/-W	GL 6938' & RKB 14' @ 6952.00ft (Aztec 730)	6938.00		
		Northing	Easting	Latitude	Longitude
0.00	0.00	1901346.74	126199.14	36° 13' 8.184 N	107° 31' 1.992 W



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

Design: OH (Chaco 2306-18M #292H/OH)
 Created By: Janie Collins Date: 13:55, August 06 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

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #292H
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 #292H	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	Latitude:	36° 13' 7.752 N
From:	Lat/Long	Easting:	126,198.57 usft	Longitude:	107° 31' 1.992 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.75 °

Well	Chaco 2306-18M #292H					
Well Position	+N/-S	0.00 ft	Northing:	1,901,346.74 usft	Latitude:	36° 13' 8.184 N
	+E/-W	0.00 ft	Easting:	126,199.14 usft	Longitude:	107° 31' 1.992 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	6,938.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	7/14/2014	9.43	63.00	50,079

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	287.90	

Survey Program	Date	8/6/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
14.00	334.00	Survey #1 - Gyro Survey (OH)	Gyro		
460.00	4,746.00	Survey #2 - Surface MWD Survey (OH)	MWD SDI	MWD - Standard ver 1.0.1	
4,777.00	6,004.00	Survey #3 - Curve MWD Survey (OH)	MWD SDI	MWD - Standard ver 1.0.1	
6,035.00	11,064.00	Survey #4 - Lateral MWD Survey (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,901,346.74	126,199.14	36° 13' 8.184 N	107° 31' 1.992 W
14.00	0.00	0.00	14.00	0.00	0.00	1,901,346.74	126,199.14	36° 13' 8.184 N	107° 31' 1.992 W
64.00	0.37	197.11	64.00	-0.15	-0.05	1,901,346.59	126,199.09	36° 13' 8.182 N	107° 31' 1.993 W
First MS Survey Gyro									
114.00	0.48	209.89	114.00	-0.49	-0.20	1,901,346.25	126,198.93	36° 13' 8.179 N	107° 31' 1.994 W
164.00	0.45	200.06	164.00	-0.86	-0.37	1,901,345.89	126,198.76	36° 13' 8.176 N	107° 31' 1.997 W
214.00	0.65	197.33	213.99	-1.31	-0.52	1,901,345.44	126,198.60	36° 13' 8.171 N	107° 31' 1.998 W
264.00	0.78	214.31	263.99	-1.86	-0.80	1,901,344.89	126,198.32	36° 13' 8.166 N	107° 31' 2.002 W

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #292H
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 #292H	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
334.00	1.07	229.62	333.98	-2.68	-1.57	1,901,344.08	126,197.54	36° 13' 8.157 N	107° 31' 2.011 W
Last MS Survey Gyro									
460.00	1.04	235.26	459.96	-4.09	-3.40	1,901,342.69	126,195.68	36° 13' 8.144 N	107° 31' 2.034 W
First Surface MWD Survey									
492.00	0.68	247.89	491.96	-4.33	-3.82	1,901,342.46	126,195.27	36° 13' 8.141 N	107° 31' 2.039 W
524.00	0.33	340.24	523.96	-4.32	-4.02	1,901,342.48	126,195.06	36° 13' 8.141 N	107° 31' 2.041 W
586.00	0.68	7.43	585.95	-3.78	-4.04	1,901,343.01	126,195.05	36° 13' 8.147 N	107° 31' 2.041 W
649.00	1.29	23.11	648.94	-2.76	-3.71	1,901,344.03	126,195.39	36° 13' 8.157 N	107° 31' 2.037 W
712.00	2.40	23.23	711.91	-0.90	-2.91	1,901,345.88	126,196.22	36° 13' 8.175 N	107° 31' 2.028 W
775.00	3.86	22.63	774.81	2.27	-1.57	1,901,349.04	126,197.59	36° 13' 8.206 N	107° 31' 2.011 W
838.00	4.38	23.70	837.65	6.43	0.21	1,901,353.17	126,199.43	36° 13' 8.248 N	107° 31' 1.989 W
902.00	4.31	23.22	901.47	10.88	2.14	1,901,357.59	126,201.42	36° 13' 8.292 N	107° 31' 1.966 W
965.00	4.66	16.11	964.27	15.52	3.78	1,901,362.21	126,203.12	36° 13' 8.337 N	107° 31' 1.946 W
1,028.00	4.86	10.33	1,027.06	20.60	4.97	1,901,367.27	126,204.38	36° 13' 8.388 N	107° 31' 1.931 W
1,091.00	5.01	10.40	1,089.82	25.93	5.95	1,901,372.59	126,205.42	36° 13' 8.440 N	107° 31' 1.919 W
1,154.00	4.94	11.33	1,152.59	31.30	6.98	1,901,377.94	126,206.52	36° 13' 8.493 N	107° 31' 1.907 W
1,217.00	5.30	13.69	1,215.34	36.78	8.20	1,901,383.41	126,207.82	36° 13' 8.548 N	107° 31' 1.892 W
1,280.00	5.68	13.05	1,278.05	42.65	9.59	1,901,389.26	126,209.29	36° 13' 8.606 N	107° 31' 1.875 W
1,306.00	5.98	14.42	1,303.91	45.21	10.22	1,901,391.82	126,209.95	36° 13' 8.631 N	107° 31' 1.867 W
1,334.24	5.75	15.25	1,332.00	48.00	10.96	1,901,394.60	126,210.72	36° 13' 8.659 N	107° 31' 1.858 W
1,368.00	5.48	16.33	1,365.60	51.18	11.85	1,901,397.76	126,211.66	36° 13' 8.690 N	107° 31' 1.847 W
1,429.00	6.20	16.64	1,426.29	57.13	13.62	1,901,403.69	126,213.50	36° 13' 8.749 N	107° 31' 1.826 W
1,490.00	6.06	18.25	1,486.94	63.35	15.57	1,901,409.88	126,215.53	36° 13' 8.810 N	107° 31' 1.802 W
1,551.00	5.57	10.03	1,547.62	69.32	17.09	1,901,415.83	126,217.14	36° 13' 8.869 N	107° 31' 1.783 W
1,613.00	5.56	14.28	1,609.33	75.19	18.36	1,901,421.69	126,218.48	36° 13' 8.928 N	107° 31' 1.768 W
1,674.00	5.59	14.70	1,670.04	80.93	19.84	1,901,427.41	126,220.03	36° 13' 8.984 N	107° 31' 1.750 W
1,734.00	5.21	14.71	1,729.78	86.39	21.27	1,901,432.85	126,221.54	36° 13' 9.038 N	107° 31' 1.732 W
1,795.00	5.68	17.73	1,790.50	91.95	22.90	1,901,438.38	126,223.23	36° 13' 9.093 N	107° 31' 1.713 W
1,856.00	5.51	18.19	1,851.21	97.60	24.73	1,901,444.01	126,225.14	36° 13' 9.149 N	107° 31' 1.690 W
1,918.00	5.44	12.41	1,912.93	103.30	26.29	1,901,449.69	126,226.78	36° 13' 9.205 N	107° 31' 1.671 W
1,930.13	5.42	12.68	1,925.00	104.42	26.54	1,901,450.81	126,227.04	36° 13' 9.217 N	107° 31' 1.668 W
1,979.00	5.33	13.77	1,973.66	108.88	27.59	1,901,455.25	126,228.15	36° 13' 9.261 N	107° 31' 1.655 W
2,033.57	5.19	15.72	2,028.00	113.72	28.86	1,901,460.07	126,229.48	36° 13' 9.308 N	107° 31' 1.640 W
2,041.00	5.17	15.99	2,035.40	114.36	29.04	1,901,460.71	126,229.67	36° 13' 9.315 N	107° 31' 1.638 W
2,102.00	4.75	16.32	2,096.17	119.43	30.51	1,901,465.76	126,231.21	36° 13' 9.365 N	107° 31' 1.620 W
2,164.00	4.77	14.91	2,157.96	124.38	31.89	1,901,470.70	126,232.65	36° 13' 9.414 N	107° 31' 1.603 W
2,225.00	4.73	11.92	2,218.75	129.29	33.06	1,901,475.59	126,233.89	36° 13' 9.463 N	107° 31' 1.589 W
2,286.00	4.81	17.85	2,279.54	134.19	34.37	1,901,480.47	126,235.26	36° 13' 9.511 N	107° 31' 1.573 W
2,319.59	5.01	19.22	2,313.00	136.91	35.28	1,901,483.18	126,236.21	36° 13' 9.538 N	107° 31' 1.561 W
2,348.00	5.19	20.30	2,341.30	139.29	36.14	1,901,485.55	126,237.09	36° 13' 9.561 N	107° 31' 1.551 W
2,411.00	6.21	22.97	2,403.99	145.10	38.46	1,901,491.33	126,239.49	36° 13' 9.619 N	107° 31' 1.523 W
2,474.00	6.56	25.61	2,466.60	151.48	41.34	1,901,497.67	126,242.46	36° 13' 9.682 N	107° 31' 1.488 W
2,537.00	6.53	18.70	2,529.19	158.12	44.04	1,901,504.27	126,245.25	36° 13' 9.748 N	107° 31' 1.455 W
2,599.00	6.27	15.12	2,590.80	164.73	46.06	1,901,510.85	126,247.35	36° 13' 9.813 N	107° 31' 1.430 W
2,662.00	6.20	12.68	2,653.43	171.37	47.70	1,901,517.47	126,249.08	36° 13' 9.879 N	107° 31' 1.410 W
2,726.00	5.75	11.96	2,717.08	177.88	49.13	1,901,523.96	126,250.58	36° 13' 9.943 N	107° 31' 1.393 W
2,789.00	4.81	9.57	2,779.81	183.57	50.22	1,901,529.64	126,251.75	36° 13' 9.999 N	107° 31' 1.379 W
2,852.00	4.88	12.90	2,842.59	188.79	51.26	1,901,534.84	126,252.86	36° 13' 10.051 N	107° 31' 1.367 W
2,915.00	4.52	12.43	2,905.38	193.82	52.39	1,901,539.86	126,254.06	36° 13' 10.101 N	107° 31' 1.353 W
2,977.00	4.87	20.24	2,967.17	198.68	53.82	1,901,544.70	126,255.56	36° 13' 10.149 N	107° 31' 1.335 W
3,039.00	4.82	17.36	3,028.95	203.63	55.51	1,901,549.63	126,257.31	36° 13' 10.198 N	107° 31' 1.315 W
3,102.00	4.87	22.61	3,091.72	208.63	57.33	1,901,554.60	126,259.19	36° 13' 10.247 N	107° 31' 1.292 W
3,166.00	4.89	21.77	3,155.49	213.67	59.39	1,901,559.62	126,261.31	36° 13' 10.297 N	107° 31' 1.267 W
3,229.00	5.21	14.28	3,218.25	218.94	61.09	1,901,564.86	126,263.08	36° 13' 10.349 N	107° 31' 1.247 W
3,292.00	5.76	5.14	3,280.96	224.86	62.08	1,901,570.77	126,264.15	36° 13' 10.407 N	107° 31' 1.234 W



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #292H
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 #292H	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
3,355.00	5.61	1.94	3,343.65	231.08	62.46	1,901,576.99	126,264.62	36° 13' 10.469 N	107° 31' 1.230 W
3,392.52	5.32	9.93	3,381.00	234.63	62.83	1,901,580.53	126,265.03	36° 13' 10.504 N	107° 31' 1.225 W
3,417.00	5.19	15.55	3,405.38	236.81	63.32	1,901,582.71	126,265.55	36° 13' 10.526 N	107° 31' 1.219 W
3,435.70	5.27	15.59	3,424.00	238.46	63.78	1,901,584.34	126,266.03	36° 13' 10.542 N	107° 31' 1.214 W
3,482.00	5.46	15.70	3,470.10	242.62	64.94	1,901,588.50	126,267.25	36° 13' 10.583 N	107° 31' 1.200 W
3,544.00	4.95	15.70	3,531.84	248.04	66.47	1,901,593.89	126,268.84	36° 13' 10.637 N	107° 31' 1.181 W
3,607.00	5.19	18.34	3,594.59	253.36	68.10	1,901,599.19	126,270.54	36° 13' 10.689 N	107° 31' 1.161 W
3,671.00	5.00	17.18	3,658.34	258.77	69.83	1,901,604.58	126,272.35	36° 13' 10.743 N	107° 31' 1.140 W
3,734.00	5.02	15.13	3,721.10	264.06	71.36	1,901,609.84	126,273.95	36° 13' 10.795 N	107° 31' 1.121 W
3,796.00	6.07	16.62	3,782.81	269.82	73.01	1,901,615.58	126,275.67	36° 13' 10.852 N	107° 31' 1.101 W
3,861.00	6.36	14.98	3,847.43	276.59	74.92	1,901,622.32	126,277.67	36° 13' 10.919 N	107° 31' 1.078 W
3,924.00	6.94	14.13	3,910.00	283.65	76.75	1,901,629.36	126,279.59	36° 13' 10.989 N	107° 31' 1.055 W
3,988.00	6.03	11.35	3,973.59	290.69	78.36	1,901,636.39	126,281.29	36° 13' 11.058 N	107° 31' 1.036 W
4,052.00	4.68	4.85	4,037.31	296.59	79.24	1,901,642.27	126,282.25	36° 13' 11.117 N	107° 31' 1.025 W
4,115.00	4.65	8.92	4,100.10	301.68	79.85	1,901,647.35	126,282.93	36° 13' 11.167 N	107° 31' 1.018 W
4,177.00	4.10	10.19	4,161.92	306.34	80.64	1,901,652.00	126,283.77	36° 13' 11.213 N	107° 31' 1.008 W
4,216.18	4.31	12.95	4,201.00	309.15	81.21	1,901,654.81	126,284.39	36° 13' 11.241 N	107° 31' 1.001 W
4,241.00	4.44	14.57	4,225.75	310.99	81.66	1,901,656.64	126,284.86	36° 13' 11.259 N	107° 31' 0.995 W
4,304.00	5.19	16.81	4,288.52	316.08	83.10	1,901,661.71	126,286.36	36° 13' 11.310 N	107° 31' 0.978 W
4,368.00	5.79	18.55	4,352.23	321.91	84.97	1,901,667.51	126,288.30	36° 13' 11.367 N	107° 31' 0.955 W
4,398.93	5.86	18.38	4,383.00	324.89	85.96	1,901,670.48	126,289.34	36° 13' 11.397 N	107° 31' 0.943 W
4,431.00	5.93	18.21	4,414.90	328.02	86.99	1,901,673.59	126,290.41	36° 13' 11.428 N	107° 31' 0.930 W
4,494.00	5.36	12.71	4,477.59	333.98	88.66	1,901,679.53	126,292.15	36° 13' 11.486 N	107° 31' 0.910 W
4,557.00	5.49	12.97	4,540.31	339.79	89.98	1,901,685.32	126,293.55	36° 13' 11.544 N	107° 31' 0.894 W
4,619.00	4.87	14.59	4,602.06	345.22	91.31	1,901,690.74	126,294.95	36° 13' 11.598 N	107° 31' 0.878 W
4,683.00	4.38	13.70	4,665.85	350.23	92.57	1,901,695.73	126,296.28	36° 13' 11.647 N	107° 31' 0.862 W
4,714.00	5.52	8.73	4,696.73	352.85	93.08	1,901,698.34	126,296.82	36° 13' 11.673 N	107° 31' 0.856 W
4,746.00	8.43	3.93	4,728.49	356.71	93.48	1,901,702.20	126,297.27	36° 13' 11.711 N	107° 31' 0.851 W
Last Surface MWD Survey									
4,777.00	10.41	4.97	4,759.07	361.77	93.87	1,901,707.25	126,297.73	36° 13' 11.761 N	107° 31' 0.846 W
First SDI Curve MWD Survey									
4,809.00	12.47	1.68	4,790.44	368.10	94.23	1,901,713.58	126,298.17	36° 13' 11.824 N	107° 31' 0.842 W
4,840.00	14.43	0.07	4,820.59	375.31	94.33	1,901,720.79	126,298.36	36° 13' 11.895 N	107° 31' 0.841 W
4,872.00	15.52	355.38	4,851.50	383.57	93.99	1,901,729.05	126,298.13	36° 13' 11.977 N	107° 31' 0.845 W
4,903.00	17.33	352.19	4,881.23	392.28	93.03	1,901,737.77	126,297.28	36° 13' 12.063 N	107° 31' 0.857 W
4,935.00	18.27	350.33	4,911.70	401.94	91.54	1,901,747.45	126,295.92	36° 13' 12.159 N	107° 31' 0.875 W
4,966.00	18.82	347.09	4,941.09	411.61	89.60	1,901,757.14	126,294.11	36° 13' 12.254 N	107° 31' 0.899 W
4,998.00	19.79	342.10	4,971.30	421.79	86.78	1,901,767.36	126,291.43	36° 13' 12.355 N	107° 31' 0.933 W
5,029.00	22.46	338.99	5,000.21	432.32	83.05	1,901,777.94	126,287.83	36° 13' 12.459 N	107° 31' 0.979 W
5,061.00	24.41	336.03	5,029.57	444.07	78.17	1,901,789.75	126,283.11	36° 13' 12.575 N	107° 31' 1.038 W
5,092.00	26.23	333.00	5,057.59	456.03	72.46	1,901,801.78	126,277.55	36° 13' 12.693 N	107° 31' 1.108 W
5,124.00	27.70	331.26	5,086.11	468.85	65.67	1,901,814.69	126,270.93	36° 13' 12.820 N	107° 31' 1.191 W
5,155.00	30.48	329.40	5,113.20	481.94	58.20	1,901,827.88	126,263.63	36° 13' 12.950 N	107° 31' 1.282 W
5,187.00	33.54	329.02	5,140.33	496.51	49.52	1,901,842.56	126,255.14	36° 13' 13.094 N	107° 31' 1.388 W
5,219.00	34.45	324.43	5,166.87	511.45	39.70	1,901,857.63	126,245.52	36° 13' 13.241 N	107° 31' 1.508 W
5,250.00	36.01	320.96	5,192.19	525.66	28.86	1,901,871.98	126,234.86	36° 13' 13.382 N	107° 31' 1.640 W
5,281.00	38.79	318.21	5,216.82	539.98	16.64	1,901,886.46	126,222.84	36° 13' 13.524 N	107° 31' 1.789 W
5,313.00	41.19	314.99	5,241.34	554.91	2.51	1,901,901.57	126,208.90	36° 13' 13.671 N	107° 31' 1.961 W
5,344.00	43.82	312.30	5,264.19	569.35	-12.65	1,901,916.21	126,193.93	36° 13' 13.814 N	107° 31' 2.146 W
5,375.00	44.38	308.45	5,286.45	583.32	-29.08	1,901,930.39	126,177.68	36° 13' 13.952 N	107° 31' 2.347 W
5,408.00	46.12	304.54	5,309.69	597.24	-47.92	1,901,944.56	126,159.03	36° 13' 14.090 N	107° 31' 2.577 W
5,439.00	47.69	300.74	5,330.87	609.44	-66.98	1,901,957.00	126,140.13	36° 13' 14.210 N	107° 31' 2.809 W
5,471.00	49.76	298.43	5,351.98	621.31	-87.90	1,901,969.14	126,119.37	36° 13' 14.328 N	107° 31' 3.065 W
5,502.00	52.19	299.74	5,371.50	633.02	-108.94	1,901,981.13	126,098.48	36° 13' 14.443 N	107° 31' 3.321 W
5,536.00	53.00	295.22	5,392.16	645.47	-132.89	1,901,993.89	126,074.70	36° 13' 14.567 N	107° 31' 3.614 W

Company:	WPX Energy, Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #292H
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 #292H	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
5,567.00	56.79	293.94	5,409.99	656.01	-155.95	1,902,004.73	126,051.77	36° 13' 14.671 N	107° 31' 3.895 W
5,599.00	60.31	292.34	5,426.68	666.73	-181.05	1,902,015.78	126,026.82	36° 13' 14.777 N	107° 31' 4.201 W
5,630.00	63.59	290.75	5,441.26	676.77	-206.50	1,902,026.15	126,001.51	36° 13' 14.876 N	107° 31' 4.512 W
5,661.00	66.71	288.71	5,454.28	686.26	-232.97	1,902,035.98	125,975.16	36° 13' 14.970 N	107° 31' 4.835 W
5,693.00	67.77	287.36	5,466.66	695.39	-261.03	1,902,045.48	125,947.22	36° 13' 15.060 N	107° 31' 5.177 W
5,725.00	69.90	285.09	5,478.22	703.72	-289.68	1,902,054.19	125,918.68	36° 13' 15.143 N	107° 31' 5.527 W
5,757.00	72.50	282.58	5,488.53	710.96	-319.09	1,902,061.81	125,889.37	36° 13' 15.214 N	107° 31' 5.886 W
5,788.00	77.11	280.75	5,496.66	717.00	-348.38	1,902,068.23	125,860.16	36° 13' 15.274 N	107° 31' 6.243 W
5,820.00	81.30	279.33	5,502.65	722.48	-379.32	1,902,074.11	125,829.29	36° 13' 15.328 N	107° 31' 6.621 W
5,851.00	83.71	278.23	5,506.69	727.17	-409.70	1,902,079.20	125,798.98	36° 13' 15.374 N	107° 31' 6.992 W
5,883.00	84.66	278.12	5,509.93	731.69	-441.21	1,902,084.14	125,767.53	36° 13' 15.419 N	107° 31' 7.376 W
5,914.00	86.27	278.17	5,512.38	736.07	-471.80	1,902,088.92	125,737.00	36° 13' 15.463 N	107° 31' 7.749 W
5,939.00	86.91	277.72	5,513.87	739.52	-496.51	1,902,092.69	125,712.33	36° 13' 15.497 N	107° 31' 8.051 W
5,983.00	88.86	276.72	5,515.49	745.05	-540.13	1,902,098.78	125,668.79	36° 13' 15.551 N	107° 31' 8.583 W
Crossed hardline @ 5983' MD									
5,989.00	89.13	276.59	5,515.60	745.74	-546.09	1,902,099.56	125,662.84	36° 13' 15.558 N	107° 31' 8.656 W
Landing Point (POE) - 7" Casing @ 5989' MD (337' FEL)									
5,996.00	89.44	276.43	5,515.69	746.54	-553.05	1,902,100.44	125,655.90	36° 13' 15.566 N	107° 31' 8.741 W
6,004.00	89.80	276.25	5,515.74	747.42	-561.00	1,902,101.43	125,647.96	36° 13' 15.575 N	107° 31' 8.838 W
Last SDI Curve MWD Survey									
6,035.00	90.07	278.07	5,515.78	751.29	-591.75	1,902,105.69	125,617.26	36° 13' 15.613 N	107° 31' 9.213 W
First SDI Lateral MWD Survey									
6,097.00	90.17	278.35	5,515.65	760.14	-653.12	1,902,115.35	125,556.01	36° 13' 15.700 N	107° 31' 9.962 W
6,158.00	90.44	278.04	5,515.32	768.83	-713.49	1,902,124.83	125,495.76	36° 13' 15.786 N	107° 31' 10.699 W
6,219.00	91.36	278.02	5,514.36	777.35	-773.89	1,902,134.14	125,435.48	36° 13' 15.871 N	107° 31' 11.436 W
6,281.00	92.08	278.39	5,512.50	786.20	-835.23	1,902,143.79	125,374.26	36° 13' 15.958 N	107° 31' 12.184 W
6,341.00	91.21	277.93	5,510.78	794.71	-894.59	1,902,153.07	125,315.01	36° 13' 16.042 N	107° 31' 12.909 W
6,403.00	90.13	280.48	5,510.05	804.63	-955.78	1,902,163.79	125,253.95	36° 13' 16.140 N	107° 31' 13.655 W
6,464.00	90.40	281.98	5,509.77	816.51	-1,015.61	1,902,176.45	125,194.29	36° 13' 16.258 N	107° 31' 14.386 W
6,525.00	90.13	281.33	5,509.49	828.83	-1,075.36	1,902,189.55	125,134.71	36° 13' 16.380 N	107° 31' 15.115 W
6,586.00	90.64	282.00	5,509.08	841.16	-1,135.09	1,902,202.67	125,075.14	36° 13' 16.501 N	107° 31' 15.844 W
6,646.00	91.04	283.45	5,508.20	854.38	-1,193.61	1,902,216.64	125,016.80	36° 13' 16.632 N	107° 31' 16.558 W
6,708.00	91.88	283.39	5,506.62	868.76	-1,253.90	1,902,231.82	124,956.70	36° 13' 16.774 N	107° 31' 17.293 W
6,770.00	91.11	282.02	5,505.00	882.39	-1,314.36	1,902,246.23	124,896.43	36° 13' 16.909 N	107° 31' 18.031 W
6,831.00	90.61	281.75	5,504.09	894.95	-1,374.04	1,902,259.58	124,836.91	36° 13' 17.033 N	107° 31' 18.760 W
6,893.00	90.44	281.69	5,503.52	907.55	-1,434.75	1,902,272.96	124,776.38	36° 13' 17.158 N	107° 31' 19.500 W
6,954.00	91.04	281.55	5,502.73	919.83	-1,494.49	1,902,286.03	124,716.80	36° 13' 17.279 N	107° 31' 20.229 W
7,016.00	90.71	281.93	5,501.78	932.45	-1,555.19	1,902,299.43	124,656.27	36° 13' 17.404 N	107° 31' 20.970 W
7,076.00	91.61	281.98	5,500.57	944.87	-1,613.87	1,902,312.62	124,597.75	36° 13' 17.527 N	107° 31' 21.686 W
7,138.00	91.58	281.86	5,498.84	957.67	-1,674.51	1,902,326.22	124,537.29	36° 13' 17.653 N	107° 31' 22.426 W
7,199.00	91.11	281.28	5,497.41	969.90	-1,734.26	1,902,339.23	124,477.71	36° 13' 17.774 N	107° 31' 23.155 W
7,260.00	91.48	280.61	5,496.03	981.48	-1,794.13	1,902,351.59	124,417.99	36° 13' 17.889 N	107° 31' 23.886 W
7,324.00	90.04	280.22	5,495.18	993.05	-1,857.07	1,902,363.98	124,355.21	36° 13' 18.003 N	107° 31' 24.654 W
7,387.00	90.50	280.95	5,494.89	1,004.62	-1,919.00	1,902,376.36	124,293.44	36° 13' 18.117 N	107° 31' 25.410 W
7,450.00	90.04	280.75	5,494.59	1,016.48	-1,980.87	1,902,389.03	124,231.73	36° 13' 18.235 N	107° 31' 26.165 W
7,513.00	90.07	281.56	5,494.53	1,028.67	-2,042.68	1,902,402.02	124,170.08	36° 13' 18.355 N	107° 31' 26.919 W
7,576.00	90.84	282.58	5,494.03	1,041.84	-2,104.28	1,902,416.00	124,108.66	36° 13' 18.485 N	107° 31' 27.671 W
7,638.00	92.15	284.35	5,492.41	1,056.27	-2,164.56	1,902,431.21	124,048.58	36° 13' 18.628 N	107° 31' 28.406 W
7,701.00	92.90	284.43	5,489.64	1,071.92	-2,225.52	1,902,447.65	123,987.82	36° 13' 18.783 N	107° 31' 29.150 W
7,765.00	92.45	283.25	5,486.65	1,087.21	-2,287.59	1,902,463.75	123,925.96	36° 13' 18.934 N	107° 31' 29.908 W
7,828.00	91.48	281.67	5,484.49	1,100.79	-2,349.07	1,902,478.14	123,864.66	36° 13' 19.068 N	107° 31' 30.658 W
7,891.00	91.82	281.22	5,482.68	1,113.29	-2,410.79	1,902,491.44	123,803.11	36° 13' 19.192 N	107° 31' 31.411 W
7,954.00	90.64	281.70	5,481.32	1,125.80	-2,472.52	1,902,504.76	123,741.55	36° 13' 19.315 N	107° 31' 32.164 W
8,016.00	91.14	281.85	5,480.36	1,138.45	-2,533.21	1,902,518.20	123,681.03	36° 13' 19.440 N	107° 31' 32.905 W

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #292H
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 #292H	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
8,079.00	90.47	282.75	5,479.48	1,151.87	-2,594.75	1,902,532.43	123,619.67	36° 13' 19.573 N	107° 31' 33.656 W
8,143.00	90.84	282.60	5,478.74	1,165.91	-2,657.19	1,902,547.28	123,557.42	36° 13' 19.712 N	107° 31' 34.418 W
8,206.00	90.34	282.94	5,478.10	1,179.84	-2,718.63	1,902,562.01	123,496.17	36° 13' 19.849 N	107° 31' 35.168 W
8,268.00	91.18	283.09	5,477.27	1,193.80	-2,779.03	1,902,576.76	123,435.96	36° 13' 19.987 N	107° 31' 35.905 W
8,331.00	90.13	283.13	5,476.55	1,208.09	-2,840.38	1,902,591.85	123,374.79	36° 13' 20.129 N	107° 31' 36.654 W
8,393.00	90.71	283.19	5,476.10	1,222.20	-2,900.75	1,902,606.75	123,314.61	36° 13' 20.268 N	107° 31' 37.390 W
8,456.00	91.35	283.31	5,474.97	1,236.64	-2,962.07	1,902,621.99	123,253.50	36° 13' 20.411 N	107° 31' 38.139 W
8,519.00	91.48	282.70	5,473.41	1,250.81	-3,023.43	1,902,636.96	123,192.32	36° 13' 20.551 N	107° 31' 38.887 W
8,582.00	92.05	281.78	5,471.47	1,264.16	-3,084.97	1,902,651.12	123,130.96	36° 13' 20.683 N	107° 31' 39.638 W
8,645.00	90.77	281.77	5,469.92	1,277.02	-3,146.62	1,902,664.77	123,069.48	36° 13' 20.810 N	107° 31' 40.391 W
8,708.00	91.35	281.07	5,468.75	1,289.49	-3,208.36	1,902,678.05	123,007.91	36° 13' 20.933 N	107° 31' 41.144 W
8,771.00	91.21	280.15	5,467.35	1,301.08	-3,270.27	1,902,690.46	122,946.16	36° 13' 21.048 N	107° 31' 41.900 W
8,834.00	90.20	279.73	5,466.57	1,311.96	-3,332.32	1,902,702.14	122,884.26	36° 13' 21.155 N	107° 31' 42.657 W
8,897.00	90.22	281.19	5,466.34	1,323.40	-3,394.27	1,902,714.38	122,822.46	36° 13' 21.268 N	107° 31' 43.413 W
8,960.00	90.37	280.47	5,466.02	1,335.23	-3,456.15	1,902,727.03	122,760.75	36° 13' 21.385 N	107° 31' 44.168 W
9,023.00	90.24	280.53	5,465.68	1,346.71	-3,518.09	1,902,739.32	122,698.96	36° 13' 21.499 N	107° 31' 44.924 W
9,086.00	91.15	282.68	5,464.92	1,359.38	-3,579.79	1,902,752.80	122,637.42	36° 13' 21.624 N	107° 31' 45.677 W
9,149.00	90.67	283.85	5,463.92	1,373.84	-3,641.10	1,902,768.05	122,576.31	36° 13' 21.767 N	107° 31' 46.425 W
9,211.00	91.25	282.84	5,462.88	1,388.15	-3,701.42	1,902,783.14	122,516.18	36° 13' 21.908 N	107° 31' 47.161 W
9,274.00	91.01	282.42	5,461.63	1,401.92	-3,762.88	1,902,797.72	122,454.91	36° 13' 22.044 N	107° 31' 47.911 W
9,338.00	91.61	282.62	5,460.17	1,415.79	-3,825.35	1,902,812.40	122,392.63	36° 13' 22.181 N	107° 31' 48.674 W
9,401.00	90.60	282.62	5,458.96	1,429.55	-3,886.81	1,902,826.97	122,331.35	36° 13' 22.317 N	107° 31' 49.424 W
9,463.00	90.04	283.12	5,458.61	1,443.36	-3,947.25	1,902,841.57	122,271.10	36° 13' 22.454 N	107° 31' 50.161 W
9,526.00	90.34	282.81	5,458.40	1,457.49	-4,008.65	1,902,856.50	122,209.89	36° 13' 22.593 N	107° 31' 50.911 W
9,590.00	90.98	282.76	5,457.66	1,471.66	-4,071.06	1,902,871.48	122,147.67	36° 13' 22.733 N	107° 31' 51.672 W
9,652.00	90.57	282.46	5,456.83	1,485.19	-4,131.55	1,902,885.80	122,087.36	36° 13' 22.867 N	107° 31' 52.410 W
9,715.00	90.81	281.94	5,456.07	1,498.50	-4,193.13	1,902,899.92	122,025.96	36° 13' 22.999 N	107° 31' 53.162 W
9,778.00	90.22	281.98	5,455.50	1,511.56	-4,254.76	1,902,913.78	121,964.51	36° 13' 23.128 N	107° 31' 53.914 W
9,841.00	90.40	281.54	5,455.16	1,524.40	-4,316.43	1,902,927.42	121,903.01	36° 13' 23.255 N	107° 31' 54.667 W
9,904.00	90.04	282.07	5,454.92	1,537.29	-4,378.10	1,902,941.12	121,841.51	36° 13' 23.382 N	107° 31' 55.419 W
9,967.00	90.71	281.76	5,454.51	1,550.29	-4,439.74	1,902,954.93	121,780.05	36° 13' 23.510 N	107° 31' 56.171 W
10,030.00	90.66	281.72	5,453.75	1,563.11	-4,501.42	1,902,968.55	121,718.54	36° 13' 23.637 N	107° 31' 56.924 W
10,094.00	90.04	281.45	5,453.36	1,575.96	-4,564.11	1,902,982.22	121,656.02	36° 13' 23.764 N	107° 31' 57.689 W
10,157.00	90.13	280.05	5,453.27	1,587.71	-4,626.01	1,902,994.78	121,594.29	36° 13' 23.880 N	107° 31' 58.445 W
10,220.00	91.11	279.54	5,452.59	1,598.43	-4,688.08	1,903,006.31	121,532.36	36° 13' 23.986 N	107° 31' 59.202 W
10,282.00	90.24	279.77	5,451.86	1,608.83	-4,749.20	1,903,017.50	121,471.38	36° 13' 24.089 N	107° 31' 59.948 W
10,345.00	90.64	280.27	5,451.37	1,619.79	-4,811.24	1,903,029.27	121,409.49	36° 13' 24.197 N	107° 32' 0.705 W
10,409.00	90.40	280.81	5,450.79	1,631.50	-4,874.15	1,903,041.80	121,346.74	36° 13' 24.313 N	107° 32' 1.473 W
10,472.00	90.44	281.63	5,450.33	1,643.75	-4,935.95	1,903,054.87	121,285.11	36° 13' 24.434 N	107° 32' 2.227 W
10,535.00	91.24	283.02	5,449.41	1,657.20	-4,997.49	1,903,069.11	121,223.75	36° 13' 24.567 N	107° 32' 2.978 W
10,582.00	90.52	283.33	5,448.69	1,667.91	-5,043.24	1,903,080.42	121,178.14	36° 13' 24.672 N	107° 32' 3.536 W
Crossed hardline @ 10,582' MD									
10,598.00	90.27	283.44	5,448.58	1,671.62	-5,058.81	1,903,084.33	121,162.62	36° 13' 24.709 N	107° 32' 3.726 W
10,661.00	91.01	283.40	5,447.87	1,686.24	-5,120.08	1,903,099.75	121,101.54	36° 13' 24.854 N	107° 32' 4.474 W
10,724.00	90.94	283.50	5,446.80	1,700.89	-5,181.35	1,903,115.20	121,040.48	36° 13' 24.998 N	107° 32' 5.222 W
10,787.00	90.44	282.62	5,446.04	1,715.12	-5,242.71	1,903,130.24	120,979.30	36° 13' 25.139 N	107° 32' 5.971 W
10,850.00	90.00	282.39	5,445.80	1,728.76	-5,304.22	1,903,144.68	120,917.98	36° 13' 25.274 N	107° 32' 6.721 W
10,913.00	90.64	282.32	5,445.45	1,742.24	-5,365.76	1,903,158.96	120,856.62	36° 13' 25.407 N	107° 32' 7.472 W
10,958.00	91.02	282.05	5,444.80	1,751.74	-5,409.74	1,903,169.03	120,812.77	36° 13' 25.501 N	107° 32' 8.009 W
Base Perf @ 10,958' MD (33' FEL Sec 14)									
10,977.00	91.18	281.93	5,444.43	1,755.68	-5,428.32	1,903,173.22	120,794.24	36° 13' 25.540 N	107° 32' 8.236 W
10,998.00	90.31	282.07	5,444.16	1,760.05	-5,448.86	1,903,177.86	120,773.76	36° 13' 25.583 N	107° 32' 8.487 W
Last SDI Lateral MWD Survey									

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well Chaco 2306-18M #292H
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 #292H	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
11,064.00	90.50	282.00	5,443.69	1,773.81	-5,513.41	1,903,192.46	120,709.40	36° 13' 25.719 N	107° 32' 9.274 W
Projection to TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
64.00	64.00	-0.15	-0.05	First MS Survey Gyro
334.00	333.98	-2.68	-1.57	Last MS Survey Gyro
460.00	459.96	-4.09	-3.40	First Surface MWD Survey
4,746.00	4,728.49	356.71	93.48	Last Surface MWD Survey
4,777.00	4,759.07	361.77	93.87	First SDI Curve MWD Survey
5,983.00	5,515.49	745.05	-540.13	Crossed hardline @ 5983' MD
5,989.00	5,515.60	745.74	-546.09	Landing Point (POE)
5,989.00	5,515.60	745.74	-546.09	7" Casing @ 5989' MD (337' FEL)
6,004.00	5,515.74	747.42	-561.00	Last SDI Curve MWD Survey
6,035.00	5,515.78	751.29	-591.75	First SDI Lateral MWD Survey
10,582.00	5,448.69	1,667.91	-5,043.24	Crossed hardline @ 10,582' MD
10,958.00	5,444.80	1,751.74	-5,409.74	Base Perf @ 10,958' MD (33' FEL Sec 14)
10,998.00	5,444.16	1,760.05	-5,448.86	Last SDI Lateral MWD Survey
11,064.00	5,443.69	1,773.81	-5,513.41	Projection to TD

Checked By: _____ Approved By: _____ Date: _____