

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

1220 South St. Francis Drive
Santa Fe, NM 87505

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

AS DRILLED

JASON C. EDWARDS
Certificate Number 15269

LAT: 36.265554°N
LONG: 107.632825°W
DATUM: NAD1983

RV

9



WPX Energy

T24N R8W

Chaco 2408-36O

NW Lybrook UT #133H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

17 June, 2015

CONFIDENTIAL



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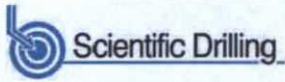
OIL CONS. DIV DIST. 3

JUL 31 2015



OIL CONS. DIV DIST. 3

JUL 31 2015



Company Name: WPX Energy
Project: T24N R8W
Site: Chaco 2408-36O
Well: NW Lybrook UT #133H

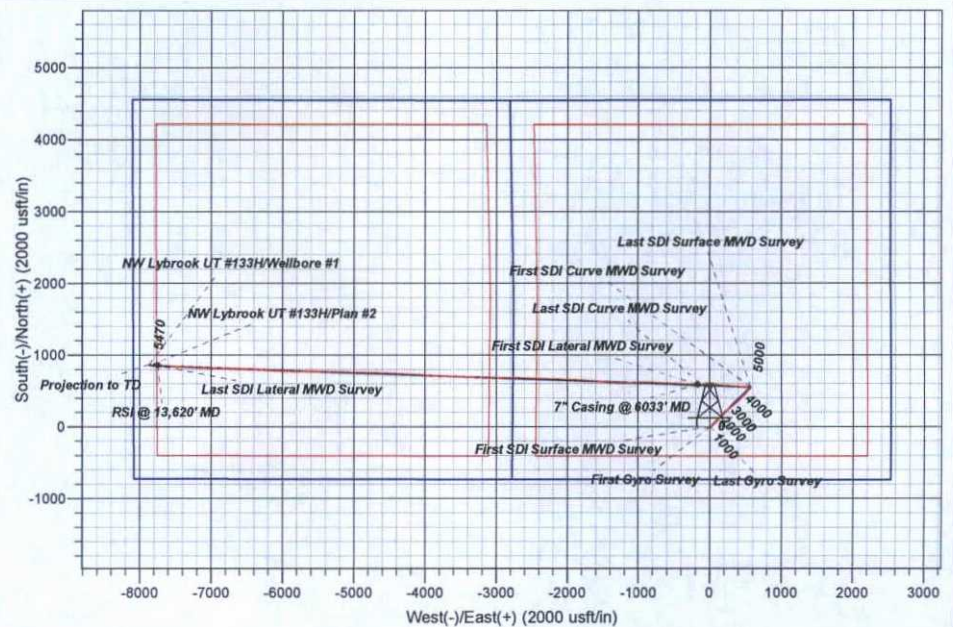
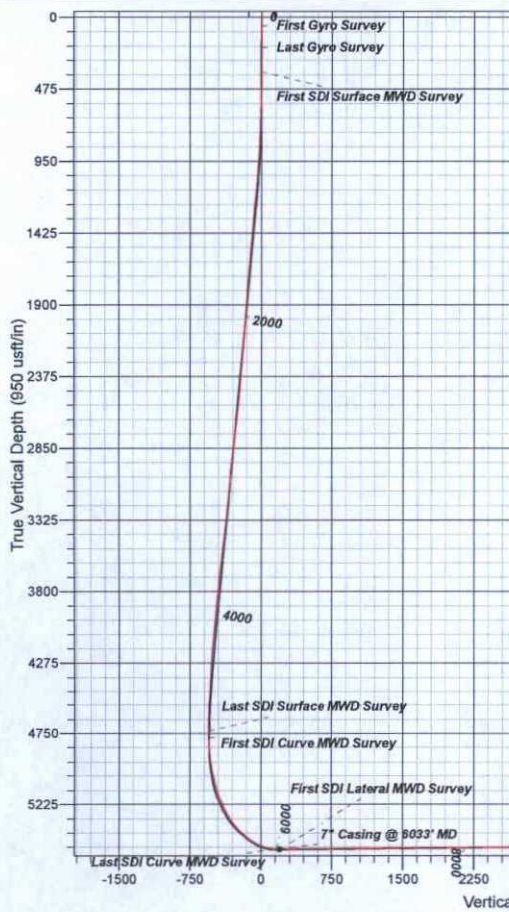


Azimuths to True North
Magnetic North: 9.12°

Magnetic Field
Strength: 49896.5nT
Dip Angle: 62.95°
Date: 6/4/2015
Model: HDGM

WELL DETAILS: NW Lybrook UT #133H

+N/-S	+E/-W	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)	6893.00
0.00	0.00	Northing	Easting
		1915960.23	559288.18
		Latitude	Longitude
		36.2655400	-107.6322200



Design: Wellbore #1 (NW Lybrook UT #133H/Wellbore #1)
Created By: Janie Collins Date: 11:21, June 17 2015

PROJECT DETAILS: T24N R8W

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 NW Lybrook UT #133H
Project:	T24N R8W	TVD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Site:	Chaco 2408-360	MD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Well:	NW Lybrook UT #133H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Grand Junction District

Project	T24N R8W		
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 2408-360		
Site Position:		Northing:	1,915,960.24 usft
From:	Map	Easting:	559,288.18 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.2655400
		Longitude:	-107.6322200
		Grid Convergence:	0.12 °

Well	NW Lybrook UT #133H		
Well Position	+N/-S	0.00 usft	Northing: 1,915,960.24 usft
	+E/-W	0.00 usft	Easting: 559,288.18 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.2655400
		Longitude:	-107.6322200
		Ground Level:	6,893.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	6/4/2015	9.12
			Dip Angle (°) 62.95
			Field Strength (nT) 49,897

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)
	0.00	0.00	0.00
			Direction (°) 272.03

Survey Program	Date	6/17/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
25.00	200.00	Survey #1 - Gyro Survey (Wellbore #1)	GYRO-NS	Gyrocompass Gyro
359.00	4,814.00	Survey #2 - Surface MWD Survey (Wellbo	SDI MWD	SDI MWD - Standard ver 1.0.1
4,859.00	5,986.00	Survey #3 - Curve MWD Survey (Wellbore	SDI MWD	SDI MWD - Standard ver 1.0.1
6,043.00	13,741.00	Survey #4 - Lateral MWD Survey (Wellbor	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey									
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	1,915,960.24	559,288.18	36.2655400	-107.6322200
25.00	0.00	0.00	25.00	0.00	0.00	1,915,960.24	559,288.18	36.2655400	-107.6322200
55.00	0.26	137.13	55.00	-0.05	0.05	1,915,960.19	559,288.23	36.2655398	-107.6322199
First Gyro Survey									
85.00	0.12	104.37	85.00	-0.11	0.12	1,915,960.13	559,288.31	36.2655397	-107.6322196
115.00	0.14	142.15	115.00	-0.14	0.18	1,915,960.09	559,288.36	36.2655396	-107.6322194
145.00	0.31	151.93	145.00	-0.24	0.24	1,915,959.99	559,288.42	36.2655393	-107.6322192
175.00	0.40	127.52	175.00	-0.38	0.36	1,915,959.86	559,288.54	36.2655389	-107.6322188

Company:	WPX Energy	Local Co-ordinate Reference:	Well NW Lybrook UT #133H
Project:	T24N R8W	TVD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Site:	Chaco 2408-360	MD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Well:	NW Lybrook UT #133H	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
200.00	0.64	139.18	200.00	-0.54	0.52	1,915,959.70	559,288.70	36.2655385	-107.6322183
Last Gyro Survey									
359.00	0.82	124.25	358.98	-1.85	2.04	1,915,958.39	559,290.23	36.2655349	-107.6322131
First SDI Surface MWD Survey									
450.00	2.13	59.51	449.96	-1.36	4.03	1,915,958.89	559,292.22	36.2655362	-107.6322063
541.00	2.45	57.75	540.88	0.54	7.14	1,915,960.79	559,295.32	36.2655414	-107.6321958
632.00	2.43	60.49	631.80	2.52	10.46	1,915,962.78	559,298.64	36.2655469	-107.6321845
723.00	3.47	46.63	722.68	5.37	14.14	1,915,965.63	559,302.31	36.2655547	-107.6321721
814.00	5.54	46.64	813.40	10.27	19.34	1,915,970.55	559,307.50	36.2655682	-107.6321544
905.00	7.33	46.01	903.82	17.32	26.71	1,915,977.61	559,314.86	36.2655875	-107.6321294
995.00	9.19	48.04	992.88	26.12	36.18	1,915,986.43	559,324.31	36.2656117	-107.6320973
1,085.00	10.47	48.06	1,081.56	36.39	47.61	1,915,996.72	559,335.72	36.2656399	-107.6320585
1,177.00	12.64	46.91	1,171.69	48.85	61.18	1,916,009.22	559,349.26	36.2656742	-107.6320125
1,267.00	13.61	46.76	1,259.34	62.83	76.09	1,916,023.23	559,364.14	36.2657126	-107.6319619
1,358.00	13.32	43.40	1,347.84	77.78	91.09	1,916,038.21	559,379.11	36.2657536	-107.6319110
1,450.00	11.61	39.61	1,437.67	92.62	104.28	1,916,053.07	559,392.27	36.2657944	-107.6318663
1,540.00	11.60	37.90	1,525.83	106.73	115.61	1,916,067.21	559,403.57	36.2658332	-107.6318279
1,631.00	11.16	43.13	1,615.04	120.38	127.25	1,916,080.88	559,415.18	36.2658707	-107.6317884
1,722.00	11.42	42.26	1,704.28	133.48	139.33	1,916,094.00	559,427.23	36.2659066	-107.6317474
1,814.00	11.84	40.04	1,794.39	147.44	151.53	1,916,107.99	559,439.40	36.2659450	-107.6317060
1,905.00	11.13	38.84	1,883.57	161.43	163.04	1,916,122.01	559,450.89	36.2659834	-107.6316670
1,996.00	10.34	47.49	1,972.98	173.79	174.57	1,916,134.39	559,462.39	36.2660174	-107.6316279
2,086.00	10.49	46.77	2,061.50	184.86	186.49	1,916,145.49	559,474.29	36.2660478	-107.6315874
2,177.00	10.14	46.19	2,151.03	196.08	198.31	1,916,156.73	559,486.08	36.2660786	-107.6315473
2,268.00	10.73	47.86	2,240.52	207.31	210.37	1,916,167.98	559,498.12	36.2661095	-107.6315064
2,359.00	11.11	47.40	2,329.87	218.93	223.11	1,916,179.63	559,510.83	36.2661414	-107.6314632
2,450.00	11.32	46.47	2,419.14	231.01	236.04	1,916,191.74	559,523.74	36.2661746	-107.6314194
2,541.00	10.58	45.68	2,508.48	243.00	248.49	1,916,203.75	559,536.17	36.2662075	-107.6313771
2,632.00	11.56	47.68	2,597.78	254.98	261.21	1,916,215.76	559,548.86	36.2662404	-107.6313340
2,724.00	13.21	51.55	2,687.64	267.72	276.26	1,916,228.53	559,563.88	36.2662754	-107.6312829
2,814.00	13.37	52.31	2,775.23	280.48	292.54	1,916,241.32	559,580.14	36.2663105	-107.6312277
2,905.00	13.53	50.90	2,863.74	293.62	309.13	1,916,254.50	559,596.70	36.2663466	-107.6311714
2,996.00	12.52	49.01	2,952.39	306.81	324.84	1,916,267.72	559,612.38	36.2663828	-107.6311181
3,087.00	11.36	47.21	3,041.42	319.37	338.86	1,916,280.31	559,626.38	36.2664173	-107.6310706
3,178.00	11.89	48.66	3,130.56	331.65	352.48	1,916,292.62	559,639.97	36.2664510	-107.6310244
3,269.00	12.55	52.00	3,219.50	343.93	367.31	1,916,304.93	559,654.77	36.2664848	-107.6309741
3,361.00	13.81	50.08	3,309.07	357.13	383.60	1,916,318.16	559,671.04	36.2665210	-107.6309188
3,452.00	14.34	49.08	3,397.34	371.48	400.45	1,916,332.55	559,687.86	36.2665605	-107.6308616
3,542.00	14.79	43.77	3,484.45	387.07	416.82	1,916,348.18	559,704.20	36.2666033	-107.6308061
3,633.00	14.16	42.19	3,572.56	403.71	432.33	1,916,364.84	559,719.67	36.2666490	-107.6307535
3,724.00	13.57	41.71	3,660.91	419.93	446.91	1,916,381.09	559,734.22	36.2666935	-107.6307040
3,815.00	13.87	46.15	3,749.32	435.45	461.88	1,916,396.65	559,749.15	36.2667362	-107.6306533
3,905.00	13.63	44.88	3,836.74	450.44	477.14	1,916,411.67	559,764.39	36.2667774	-107.6306015
3,996.00	13.32	43.01	3,925.23	465.70	491.86	1,916,426.96	559,779.07	36.2668193	-107.6305516
4,087.00	12.93	41.48	4,013.85	481.00	505.75	1,916,442.28	559,792.93	36.2668613	-107.6305044
4,178.00	11.99	45.12	4,102.71	495.29	519.19	1,916,456.61	559,806.34	36.2669006	-107.6304588
4,268.00	11.82	44.13	4,190.78	508.51	532.23	1,916,469.85	559,819.36	36.2669369	-107.6304146
4,359.00	10.10	42.01	4,280.11	521.13	544.06	1,916,482.49	559,831.16	36.2669716	-107.6303745
4,450.00	8.34	42.04	4,369.93	531.96	553.83	1,916,493.34	559,840.90	36.2670013	-107.6303414
4,541.00	5.63	44.41	4,460.25	540.05	561.37	1,916,501.45	559,848.43	36.2670235	-107.6303158
4,632.00	3.54	47.91	4,550.95	545.12	566.58	1,916,506.53	559,853.63	36.2670375	-107.6302981
4,723.00	2.56	41.68	4,641.82	548.52	570.02	1,916,509.94	559,857.06	36.2670468	-107.6302864
4,814.00	0.45	32.18	4,732.79	550.34	571.56	1,916,511.77	559,858.60	36.2670518	-107.6302812
Last SDI Surface MWD Survey									

Company:	WPX Energy	Local Co-ordinate Reference:	Well NW Lybrook UT #133H
Project:	T24N R8W	TVD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Site:	Chaco 2408-360	MD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Well:	NW Lybrook UT #133H	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
4,859.00	0.91	270.14	4,777.79	550.49	571.29	1,916,511.92	559,858.33	36.2670522	-107.6302821
First SDI Curve MWD Survey									
4,905.00	3.59	269.42	4,823.75	550.48	569.49	1,916,511.90	559,856.53	36.2670522	-107.6302882
4,950.00	7.32	275.97	4,868.53	550.76	565.23	1,916,512.17	559,852.26	36.2670530	-107.6303027
4,996.00	10.52	277.25	4,913.97	551.60	558.14	1,916,512.99	559,845.18	36.2670553	-107.6303267
5,041.00	13.99	275.86	4,957.94	552.67	548.66	1,916,514.05	559,835.69	36.2670582	-107.6303589
5,087.00	17.23	275.15	5,002.24	553.85	536.34	1,916,515.20	559,823.37	36.2670615	-107.6304007
5,133.00	20.40	274.68	5,045.77	555.12	521.56	1,916,516.44	559,808.58	36.2670649	-107.6304508
5,178.00	23.84	272.38	5,087.46	556.14	504.65	1,916,517.42	559,791.67	36.2670677	-107.6305082
5,224.00	27.36	272.80	5,128.93	557.04	484.80	1,916,518.28	559,771.82	36.2670702	-107.6305755
5,269.00	30.59	273.09	5,168.30	558.16	463.03	1,916,519.36	559,750.05	36.2670733	-107.6306494
5,315.00	33.55	274.35	5,207.27	559.76	438.66	1,916,520.90	559,725.68	36.2670777	-107.6307320
5,360.00	37.30	274.67	5,243.94	561.81	412.66	1,916,522.90	559,699.68	36.2670833	-107.6308202
5,406.00	40.44	273.80	5,279.75	563.93	383.88	1,916,524.97	559,670.89	36.2670892	-107.6309178
5,451.00	43.90	272.78	5,313.09	565.66	353.72	1,916,526.63	559,640.73	36.2670939	-107.6310201
5,497.00	48.20	272.49	5,345.01	567.18	320.65	1,916,528.08	559,607.65	36.2670981	-107.6311323
5,543.00	52.10	273.39	5,374.48	569.00	285.39	1,916,529.83	559,572.39	36.2671031	-107.6312519
5,588.00	56.59	274.53	5,400.71	571.53	248.92	1,916,532.28	559,535.92	36.2671100	-107.6313756
5,634.00	61.43	275.48	5,424.38	574.98	209.65	1,916,535.65	559,496.64	36.2671195	-107.6315089
5,679.00	62.54	275.48	5,445.52	578.77	170.10	1,916,539.36	559,457.09	36.2671299	-107.6316430
5,725.00	65.73	274.60	5,465.59	582.40	128.88	1,916,542.91	559,415.85	36.2671399	-107.6317829
5,771.00	70.66	273.06	5,482.67	585.25	86.28	1,916,545.66	559,373.25	36.2671477	-107.6319274
5,816.00	74.04	272.06	5,496.31	587.16	43.45	1,916,547.48	559,330.41	36.2671530	-107.6320727
5,862.00	78.16	271.03	5,507.36	588.36	-1.18	1,916,548.59	559,285.78	36.2671563	-107.6322240
5,907.00	82.35	270.34	5,514.97	588.89	-45.52	1,916,549.03	559,241.44	36.2671577	-107.6323744
5,953.00	85.02	270.30	5,520.03	589.14	-91.23	1,916,549.19	559,195.73	36.2671584	-107.6325295
5,986.00	87.83	269.90	5,522.09	589.20	-124.17	1,916,549.18	559,162.79	36.2671586	-107.6326412
Last SDI Curve MWD Survey									
6,033.00	90.11	271.30	5,522.94	589.69	-171.15	1,916,549.57	559,115.81	36.2671599	-107.6328006
7" Casing @ 6033' MD									
6,043.00	90.59	271.60	5,522.88	589.95	-181.15	1,916,549.81	559,105.81	36.2671606	-107.6328345
First SDI Lateral MWD Survey									
6,062.00	91.51	272.17	5,522.53	590.57	-200.13	1,916,550.39	559,086.82	36.2671623	-107.6328989
6,132.00	90.57	272.58	5,521.26	593.47	-270.06	1,916,553.15	559,016.89	36.2671703	-107.6331361
6,224.00	89.80	273.19	5,520.96	598.10	-361.94	1,916,557.59	558,925.00	36.2671830	-107.6334478
6,315.00	90.22	273.58	5,520.95	603.47	-452.78	1,916,562.77	558,834.15	36.2671978	-107.6337560
6,406.00	90.31	272.17	5,520.52	608.04	-543.67	1,916,567.15	558,743.25	36.2672103	-107.6340643
6,497.00	90.03	271.13	5,520.25	610.66	-634.63	1,916,569.58	558,652.29	36.2672175	-107.6343728
6,588.00	90.57	271.28	5,519.78	612.57	-725.60	1,916,571.30	558,561.31	36.2672228	-107.6346814
6,679.00	90.40	271.21	5,519.01	614.55	-816.58	1,916,573.09	558,470.33	36.2672282	-107.6349900
6,770.00	89.80	270.95	5,518.85	616.26	-907.56	1,916,574.62	558,379.34	36.2672329	-107.6352987
6,861.00	90.81	271.04	5,518.36	617.84	-998.55	1,916,576.01	558,288.35	36.2672372	-107.6356073
6,952.00	90.13	269.68	5,517.62	618.42	-1,089.54	1,916,576.39	558,197.36	36.2672388	-107.6359160
7,043.00	89.83	268.47	5,517.65	616.95	-1,180.53	1,916,574.73	558,106.38	36.2672347	-107.6362246
7,134.00	91.38	269.68	5,516.69	615.48	-1,271.50	1,916,573.07	558,015.40	36.2672307	-107.6365332
7,225.00	91.95	272.00	5,514.04	616.81	-1,362.45	1,916,574.22	557,924.45	36.2672343	-107.6368417
7,316.00	90.04	274.99	5,512.46	622.36	-1,453.25	1,916,579.58	557,833.64	36.2672496	-107.6371497
7,407.00	90.03	273.96	5,512.41	629.46	-1,543.97	1,916,586.49	557,742.91	36.2672691	-107.6374575
7,498.00	90.10	273.59	5,512.31	635.45	-1,634.78	1,916,592.29	557,652.09	36.2672855	-107.6377655
7,589.00	90.31	273.67	5,511.98	641.21	-1,725.59	1,916,597.86	557,561.26	36.2673013	-107.6380736
7,680.00	90.23	274.06	5,511.55	647.34	-1,816.38	1,916,603.81	557,470.46	36.2673181	-107.6383816
7,771.00	90.31	273.76	5,511.12	653.55	-1,907.17	1,916,609.83	557,379.66	36.2673352	-107.6386895
7,862.00	90.04	272.70	5,510.84	658.68	-1,998.03	1,916,614.76	557,288.79	36.2673492	-107.6389977
7,953.00	90.13	271.73	5,510.71	662.19	-2,088.96	1,916,618.09	557,197.86	36.2673589	-107.6393062

Company:	WPX Energy	Local Co-ordinate Reference:	Well NW Lybrook UT #133H
Project:	T24N R8W	TVD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Site:	Chaco 2408-360	MD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Well:	NW Lybrook UT #133H	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
8,044.00	90.40	270.82	5,510.29	664.22	-2,179.93	1,916,619.93	557,106.88	36.2673644	-107.6396148
8,135.00	90.10	271.40	5,509.89	665.98	-2,270.91	1,916,621.50	557,015.89	36.2673693	-107.6399234
8,226.00	90.23	271.41	5,509.63	668.21	-2,361.89	1,916,623.54	556,924.91	36.2673754	-107.6402320
8,317.00	90.40	271.85	5,509.13	670.80	-2,452.85	1,916,625.94	556,833.95	36.2673825	-107.6405406
8,377.00	90.17	271.93	5,508.83	672.78	-2,512.81	1,916,627.80	556,773.98	36.2673879	-107.6407440
8,408.00	90.10	272.39	5,508.76	673.95	-2,543.79	1,916,628.90	556,743.00	36.2673911	-107.6408491
8,499.00	90.74	272.28	5,508.09	677.66	-2,634.71	1,916,632.42	556,652.07	36.2674012	-107.6411575
8,590.00	89.93	271.02	5,507.56	680.28	-2,725.67	1,916,634.85	556,561.10	36.2674084	-107.6414661
8,620.00	90.13	270.57	5,507.54	680.69	-2,755.67	1,916,635.21	556,531.11	36.2674095	-107.6415678
8,680.00	90.84	270.07	5,507.03	681.03	-2,815.66	1,916,635.42	556,471.11	36.2674105	-107.6417713
8,772.00	90.67	270.45	5,505.82	681.44	-2,907.66	1,916,635.64	556,379.12	36.2674116	-107.6420834
8,863.00	89.97	272.69	5,505.31	683.94	-2,998.61	1,916,637.95	556,288.16	36.2674184	-107.6423919
8,954.00	90.54	272.98	5,504.91	688.44	-3,089.50	1,916,642.26	556,197.26	36.2674307	-107.6427002
9,045.00	90.31	271.82	5,504.23	692.25	-3,180.42	1,916,645.88	556,106.34	36.2674412	-107.6430087
9,136.00	90.04	271.65	5,503.96	695.00	-3,271.37	1,916,648.45	556,015.37	36.2674487	-107.6433172
9,226.00	90.00	270.83	5,503.92	696.95	-3,361.35	1,916,650.21	555,925.39	36.2674540	-107.6436224
9,318.00	90.37	270.12	5,503.63	697.71	-3,453.35	1,916,650.78	555,833.39	36.2674561	-107.6439345
9,408.00	90.10	269.92	5,503.26	697.75	-3,543.35	1,916,650.82	555,743.39	36.2674562	-107.6442398
9,499.00	89.93	273.14	5,503.23	700.18	-3,634.30	1,916,652.86	555,652.43	36.2674628	-107.6445483
9,591.00	89.46	273.54	5,503.72	705.54	-3,726.14	1,916,658.03	555,560.58	36.2674775	-107.6448599
9,682.00	91.21	273.99	5,503.19	711.51	-3,816.94	1,916,663.82	555,469.77	36.2674939	-107.6451679
9,773.00	90.61	272.74	5,501.75	716.85	-3,907.77	1,916,668.97	555,378.93	36.2675085	-107.6454760
9,864.00	90.33	272.73	5,501.00	721.19	-3,998.67	1,916,673.13	555,288.03	36.2675204	-107.6457843
9,955.00	90.31	273.23	5,500.49	725.92	-4,089.54	1,916,677.67	555,197.14	36.2675334	-107.6460926
10,046.00	90.31	273.23	5,500.00	731.05	-4,180.40	1,916,682.61	555,106.28	36.2675474	-107.6464008
10,137.00	90.40	272.61	5,499.44	735.69	-4,271.27	1,916,687.05	555,015.39	36.2675601	-107.6467091
10,228.00	90.07	272.07	5,499.06	739.40	-4,362.20	1,916,690.58	554,924.46	36.2675703	-107.6470175
10,319.00	90.04	272.79	5,498.98	743.26	-4,453.12	1,916,694.25	554,833.53	36.2675808	-107.6473259
10,410.00	90.30	272.49	5,498.71	747.45	-4,544.02	1,916,698.25	554,742.62	36.2675923	-107.6476343
10,501.00	90.34	271.39	5,498.20	750.53	-4,634.96	1,916,701.14	554,651.67	36.2676007	-107.6479428
10,592.00	89.77	271.04	5,498.11	752.46	-4,725.94	1,916,702.88	554,560.69	36.2676060	-107.6482514
10,682.00	89.83	270.72	5,498.42	753.84	-4,815.93	1,916,704.08	554,470.70	36.2676098	-107.6485567
10,774.00	89.87	270.77	5,498.67	755.04	-4,907.92	1,916,705.08	554,378.70	36.2676130	-107.6488687
10,865.00	90.04	272.44	5,498.74	757.59	-4,998.88	1,916,707.44	554,287.74	36.2676200	-107.6491773
10,956.00	90.34	271.85	5,498.43	760.99	-5,089.82	1,916,710.66	554,196.79	36.2676293	-107.6494858
11,046.00	89.96	272.26	5,498.20	764.22	-5,179.76	1,916,713.70	554,106.85	36.2676381	-107.6497909
11,137.00	90.48	272.17	5,497.85	767.74	-5,270.69	1,916,717.03	554,015.91	36.2676477	-107.6500993
11,228.00	89.60	271.29	5,497.79	770.49	-5,361.65	1,916,719.59	553,924.95	36.2676552	-107.6504079
11,320.00	90.40	271.03	5,497.79	772.35	-5,453.63	1,916,721.26	553,832.96	36.2676603	-107.6507199
11,411.00	90.22	270.24	5,497.29	773.36	-5,544.62	1,916,722.08	553,741.97	36.2676630	-107.6510286
11,502.00	90.44	269.42	5,496.77	773.09	-5,635.62	1,916,721.62	553,650.97	36.2676622	-107.6513373
11,593.00	90.04	270.86	5,496.39	773.31	-5,726.61	1,916,721.65	553,559.97	36.2676628	-107.6516459
11,684.00	90.31	271.56	5,496.11	775.23	-5,817.59	1,916,723.39	553,468.99	36.2676680	-107.6519546
11,775.00	90.50	271.12	5,495.47	777.36	-5,908.57	1,916,725.33	553,378.02	36.2676738	-107.6522632
11,867.00	90.91	272.83	5,494.34	780.53	-6,000.50	1,916,728.31	553,286.07	36.2676824	-107.6525750
11,957.00	90.22	273.40	5,493.45	785.42	-6,090.36	1,916,733.01	553,196.20	36.2676958	-107.6528798
12,048.00	90.60	273.56	5,492.80	790.94	-6,181.19	1,916,738.34	553,105.36	36.2677109	-107.6531880
12,139.00	90.27	273.40	5,492.11	796.47	-6,272.02	1,916,743.68	553,014.52	36.2677261	-107.6534961
12,231.00	91.07	272.44	5,491.03	801.15	-6,363.89	1,916,748.17	552,922.64	36.2677389	-107.6538077
12,322.00	90.70	272.17	5,489.62	804.81	-6,454.81	1,916,751.65	552,831.72	36.2677489	-107.6541161
12,413.00	90.67	271.55	5,488.54	807.77	-6,545.75	1,916,754.41	552,740.77	36.2677569	-107.6544247
12,504.00	90.75	271.38	5,487.41	810.09	-6,636.72	1,916,756.55	552,649.80	36.2677633	-107.6547332
12,595.00	90.84	271.73	5,486.15	812.56	-6,727.67	1,916,758.83	552,558.84	36.2677700	-107.6550418
12,687.00	89.80	271.60	5,485.63	815.23	-6,819.63	1,916,761.31	552,466.87	36.2677773	-107.6553537
12,778.00	90.24	271.30	5,485.60	817.54	-6,910.60	1,916,763.42	552,375.90	36.2677835	-107.6556623

Company:	WPX Energy	Local Co-ordinate Reference:	Well NW Lybrook UT #133H
Project:	T24N R8W	TVD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Site:	Chaco 2408-360	MD Reference:	GL 6893' & RKB 25' @ 6918.00usft (Aztec 1000)
Well:	NW Lybrook UT #133H	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
12,869.00	90.47	272.37	5,485.04	820.45	-7,001.55	1,916,766.15	552,284.94	36.2677915	-107.6559708
12,960.00	90.44	271.34	5,484.31	823.40	-7,092.50	1,916,768.90	552,193.99	36.2677995	-107.6562794
13,051.00	90.40	271.25	5,483.65	825.45	-7,183.48	1,916,770.77	552,103.01	36.2678051	-107.6565880
13,143.00	91.38	272.71	5,482.22	828.63	-7,275.41	1,916,773.76	552,011.07	36.2678138	-107.6568998
13,234.00	90.84	273.32	5,480.46	833.42	-7,366.26	1,916,778.36	551,920.20	36.2678269	-107.6572080
13,325.00	91.21	273.53	5,478.83	838.85	-7,457.09	1,916,783.60	551,829.37	36.2678417	-107.6575161
13,416.00	91.31	273.64	5,476.83	844.54	-7,547.89	1,916,789.10	551,738.56	36.2678573	-107.6578241
13,507.00	90.75	273.58	5,475.19	850.27	-7,638.69	1,916,794.64	551,647.74	36.2678730	-107.6581322
13,598.00	90.84	273.93	5,473.93	856.23	-7,729.49	1,916,800.41	551,556.94	36.2678893	-107.6584402
13,620.00	91.18	273.95	5,473.54	857.74	-7,751.43	1,916,801.88	551,534.99	36.2678934	-107.6585146
RSI @ 13,620' MD									
13,676.00	92.05	273.99	5,471.96	861.61	-7,807.27	1,916,805.64	551,479.14	36.2679040	-107.6587041
Last SDI Lateral MWD Survey									
13,741.00	92.05	273.99	5,469.64	866.13	-7,872.07	1,916,810.02	551,414.33	36.2679164	-107.6589239
Projection to TD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
55.00	55.00	-0.05	0.05	First Gyro Survey
200.00	200.00	-0.54	0.52	Last Gyro Survey
359.00	358.98	-1.85	2.04	First SDI Surface MWD Survey
4,814.00	4,732.79	550.34	571.56	Last SDI Surface MWD Survey
4,859.00	4,777.79	550.49	571.29	First SDI Curve MWD Survey
5,986.00	5,522.09	589.20	-124.17	Last SDI Curve MWD Survey
6,033.00	5,522.94	589.69	-171.15	7" Casing @ 6033' MD
6,043.00	5,522.88	589.95	-181.15	First SDI Lateral MWD Survey
13,620.00	5,473.54	857.74	-7,751.43	RSI @ 13,620' MD
13,676.00	5,471.96	861.61	-7,807.27	Last SDI Lateral MWD Survey
13,741.00	5,469.64	866.13	-7,872.07	Projection to TD

Checked By: _____ Approved By: _____ Date: _____