

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
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JASON C. EDWARDS
Certificate Number 15269

Company:	WPX Energy	Local Co-ordinate Reference:	Well W Lybrook UT #749H - Slot A1
Project:	T23N R9W	TVD Reference:	KB @ 6758.00usft (Aztec 1000)
Site:	W Lybrook 2309-12P	MD Reference:	KB @ 6758.00usft (Aztec 1000)
Well:	W Lybrook UT #749H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Grand Junction District

Project	T23N R9W		
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	W Lybrook 2309-12P		
Site Position:		Northing:	1,905,338.99 usft
From:	Map	Easting:	529,692.39 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.2364886
		Longitude:	-107.7326501
		Grid Convergence:	0.06 °

Well	W Lybrook UT #749H - Slot A1		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.2364886
		Longitude:	-107.7326501
		Ground Level:	6,733.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	3/6/2016	9.13
			Dip Angle
			(°)
			Field Strength
			(nT)
			62.88
			49,806

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			143.02

Survey Program	Date 3/18/2016		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
55.00	316.00	Surface Gyro (Wellbore #1)	NS-GYRO-MS
451.00	4,181.00	Survey #2 - Surface MWD (Wellbore #1)	SDI MWD
4,272.00	5,507.00	Survey #3 - Curve MWD Survey (Wellbore)	SDI MWD
5,583.00	14,320.00	Survey #4 - Lateral MWD Survey (Wellbor	SDI MWD
			Description
			North sensing gyrocompassing m/s
			SDI MWD - Standard ver 1.0.1
			SDI MWD - Standard ver 1.0.1
			SDI MWD - Standard ver 1.0.1

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(usft)	(usft)	North	Easting		
(usft)			(usft)			(usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	1,905,338.99	529,692.39	36.2364886	-107.7326501
55.00	0.55	79.97	55.00	0.05	0.26	1,905,339.04	529,692.65	36.2364887	-107.7326492
85.00	0.47	53.85	85.00	0.14	0.50	1,905,339.14	529,692.89	36.2364890	-107.7326484
115.00	0.57	60.56	115.00	0.29	0.73	1,905,339.28	529,693.12	36.2364894	-107.7326476
145.00	0.42	65.69	145.00	0.41	0.96	1,905,339.40	529,693.35	36.2364897	-107.7326468
175.00	0.62	125.01	174.99	0.36	1.19	1,905,339.35	529,693.59	36.2364895	-107.7326460
205.00	0.49	141.76	204.99	0.17	1.41	1,905,339.16	529,693.80	36.2364890	-107.7326453
235.00	0.30	126.90	234.99	0.02	1.55	1,905,339.01	529,693.94	36.2364886	-107.7326448
265.00	0.71	172.02	264.99	-0.21	1.64	1,905,338.78	529,694.03	36.2364880	-107.7326445

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Well:	W Lybrook UT #749H	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
295.00	0.77	196.03	294.99	-0.59	1.61	1,905,338.40	529,694.00	36.2364869	-107.7326446
316.00	0.72	196.83	315.99	-0.85	1.53	1,905,338.14	529,693.92	36.2364862	-107.7326449
451.00	0.69	214.98	450.98	-2.33	0.82	1,905,336.66	529,693.21	36.2364822	-107.7326473
First SDI Surface MWD Survey									
542.00	2.47	262.85	541.94	-3.02	-1.44	1,905,335.97	529,690.95	36.2364803	-107.7326550
633.00	4.05	262.33	632.79	-3.70	-6.57	1,905,335.29	529,685.82	36.2364784	-107.7326724
724.00	5.70	261.47	723.46	-4.80	-14.23	1,905,334.18	529,678.17	36.2364754	-107.7326983
816.00	7.54	261.50	814.84	-6.37	-24.72	1,905,332.60	529,667.68	36.2364711	-107.7327339
906.00	9.52	259.08	903.84	-8.65	-37.86	1,905,330.30	529,654.54	36.2364648	-107.7327785
997.00	11.49	257.77	993.31	-11.99	-54.11	1,905,326.94	529,638.29	36.2364556	-107.7328336
1,087.00	12.74	257.12	1,081.31	-16.11	-72.55	1,905,322.81	529,619.86	36.2364443	-107.7328961
1,178.00	14.13	259.00	1,169.81	-20.46	-93.23	1,905,318.43	529,599.18	36.2364323	-107.7329662
1,270.00	14.95	255.72	1,258.87	-25.53	-115.76	1,905,313.34	529,576.66	36.2364184	-107.7330426
1,361.00	16.14	255.41	1,346.54	-31.61	-139.38	1,905,307.23	529,553.05	36.2364017	-107.7331227
1,451.00	18.23	255.98	1,432.52	-38.18	-165.14	1,905,300.65	529,527.29	36.2363837	-107.7332101
1,542.00	19.68	255.47	1,518.58	-45.47	-193.79	1,905,293.32	529,498.65	36.2363636	-107.7333072
1,633.00	21.03	254.05	1,603.89	-53.80	-224.32	1,905,284.96	529,468.13	36.2363408	-107.7334107
1,724.00	22.97	253.84	1,688.26	-63.23	-257.08	1,905,275.50	529,435.38	36.2363149	-107.7335218
1,815.00	24.22	255.40	1,771.66	-72.88	-292.20	1,905,265.81	529,400.27	36.2362883	-107.7336409
1,906.00	24.12	256.46	1,854.68	-81.94	-328.34	1,905,256.72	529,364.14	36.2362635	-107.7337634
1,998.00	23.83	255.35	1,938.74	-91.04	-364.59	1,905,247.58	529,327.89	36.2362385	-107.7338864
2,088.00	24.60	257.78	2,020.82	-99.60	-400.49	1,905,238.98	529,292.00	36.2362149	-107.7340081
2,179.00	25.37	257.89	2,103.31	-107.70	-438.07	1,905,230.84	529,254.44	36.2361927	-107.7341355
2,270.00	26.15	256.72	2,185.26	-116.40	-476.65	1,905,222.10	529,215.87	36.2361688	-107.7342663
2,361.00	26.28	258.69	2,266.91	-124.95	-515.92	1,905,213.50	529,176.60	36.2361453	-107.7343995
2,451.00	25.04	259.23	2,348.03	-132.42	-554.17	1,905,206.00	529,138.36	36.2361248	-107.7345292
2,542.00	26.10	260.31	2,430.12	-139.39	-592.82	1,905,198.99	529,099.72	36.2361056	-107.7346603
2,633.00	25.35	258.85	2,512.10	-146.53	-631.66	1,905,191.81	529,060.88	36.2360860	-107.7347920
2,724.00	24.60	256.58	2,594.59	-154.69	-669.20	1,905,183.61	529,023.35	36.2360636	-107.7349193
2,816.00	24.33	256.84	2,678.33	-163.45	-706.28	1,905,174.81	528,986.28	36.2360395	-107.7350450
2,907.00	24.30	256.24	2,761.26	-172.17	-742.72	1,905,166.05	528,949.85	36.2360156	-107.7351686
2,998.00	23.16	256.81	2,844.56	-180.71	-778.33	1,905,157.48	528,914.25	36.2359921	-107.7352893
3,089.00	23.00	257.00	2,928.28	-188.79	-813.08	1,905,149.36	528,879.51	36.2359699	-107.7354071
3,180.00	23.88	256.75	3,011.77	-197.01	-848.33	1,905,141.10	528,844.27	36.2359473	-107.7355267
3,271.00	23.65	256.72	3,095.05	-205.43	-884.02	1,905,132.65	528,808.58	36.2359242	-107.7356477
3,362.00	23.75	256.76	3,178.38	-213.81	-919.63	1,905,124.22	528,772.99	36.2359011	-107.7357684
3,453.00	23.39	256.76	3,261.78	-222.15	-955.05	1,905,115.85	528,737.58	36.2358782	-107.7358885
3,544.00	23.23	259.31	3,345.36	-229.61	-990.27	1,905,108.35	528,702.36	36.2358577	-107.7360079
3,635.00	22.55	258.65	3,429.19	-236.38	-1,025.01	1,905,101.55	528,667.63	36.2358391	-107.7361257
3,726.00	23.88	258.50	3,512.82	-243.48	-1,060.17	1,905,094.41	528,632.48	36.2358196	-107.7362450
3,817.00	23.26	256.72	3,596.23	-251.28	-1,095.71	1,905,086.57	528,596.95	36.2357982	-107.7363655
3,908.00	23.22	257.23	3,679.85	-259.38	-1,130.69	1,905,078.44	528,561.97	36.2357760	-107.7364841
3,999.00	21.47	257.50	3,764.01	-266.95	-1,164.45	1,905,070.84	528,528.22	36.2357551	-107.7365985
4,090.00	18.75	256.63	3,849.45	-273.93	-1,194.94	1,905,063.82	528,497.74	36.2357359	-107.7367019
4,181.00	15.74	256.16	3,936.35	-280.27	-1,221.16	1,905,057.45	528,471.52	36.2357185	-107.7367908
Last SDI Surface MWD Survey									
4,272.00	12.05	251.71	4,024.68	-286.21	-1,242.17	1,905,051.50	528,450.52	36.2357022	-107.7368621
First SDI Curve MWD Survey									
4,318.00	12.12	243.08	4,069.66	-289.90	-1,251.04	1,905,047.79	528,441.66	36.2356921	-107.7368922
4,363.00	12.22	234.64	4,113.65	-294.80	-1,259.13	1,905,042.89	528,433.57	36.2356786	-107.7369196
4,409.00	13.42	220.93	4,158.52	-301.65	-1,266.60	1,905,036.03	528,426.10	36.2356598	-107.7369449
4,454.00	14.69	213.32	4,202.17	-310.36	-1,273.16	1,905,027.31	528,419.56	36.2356359	-107.7369672
4,500.00	15.37	204.07	4,246.61	-320.80	-1,278.85	1,905,016.86	528,413.88	36.2356072	-107.7369865
4,545.00	16.94	194.43	4,289.84	-332.60	-1,282.92	1,905,005.06	528,409.82	36.2355748	-107.7370002
4,591.00	18.72	188.45	4,333.63	-346.39	-1,285.67	1,904,991.26	528,407.08	36.2355369	-107.7370096

Company:	WPX Energy	Local Co-ordinate Reference:	Well W Lybrook UT #749H - Slot A1
Project:	T23N R9W	TVD Reference:	KB @ 6758.00usft (Aztec 1000)
Site:	W Lybrook 2309-12P	MD Reference:	KB @ 6758.00usft (Aztec 1000)
Well:	W Lybrook UT #749H	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
4,636.00	20.20	179.94	4,376.07	-361.31	-1,286.72	1,904,976.35	528,406.04	36.2354959	-107.7370132
4,681.00	22.54	172.71	4,417.98	-377.64	-1,285.62	1,904,960.02	528,407.16	36.2354510	-107.7370094
4,727.00	24.88	166.82	4,460.10	-395.81	-1,282.30	1,904,941.85	528,410.51	36.2354011	-107.7369981
4,773.00	27.08	160.55	4,501.45	-415.11	-1,276.60	1,904,922.55	528,416.22	36.2353481	-107.7369788
4,818.00	30.03	158.50	4,540.98	-435.25	-1,269.06	1,904,902.42	528,423.78	36.2352928	-107.7369533
4,864.00	32.99	155.05	4,580.19	-457.32	-1,259.56	1,904,880.36	528,433.31	36.2352321	-107.7369210
4,909.00	36.10	153.42	4,617.25	-480.29	-1,248.45	1,904,857.40	528,444.44	36.2351690	-107.7368834
4,955.00	39.13	152.48	4,653.69	-505.29	-1,235.68	1,904,832.42	528,457.24	36.2351004	-107.7368401
5,000.00	42.83	151.30	4,687.65	-531.31	-1,221.77	1,904,806.41	528,471.17	36.2350289	-107.7367929
5,046.00	46.99	149.93	4,720.23	-559.59	-1,205.83	1,904,778.15	528,487.15	36.2349512	-107.7367388
5,092.00	50.12	147.12	4,750.67	-588.98	-1,187.81	1,904,748.78	528,505.19	36.2348705	-107.7366777
5,137.00	53.82	145.19	4,778.39	-618.40	-1,168.06	1,904,719.38	528,524.97	36.2347896	-107.7366108
5,183.00	57.95	144.66	4,804.19	-649.56	-1,146.18	1,904,688.24	528,546.89	36.2347040	-107.7365366
5,228.00	62.10	143.95	4,826.67	-681.21	-1,123.44	1,904,656.62	528,569.66	36.2346171	-107.7364594
5,273.00	65.72	143.52	4,846.45	-713.79	-1,099.53	1,904,624.06	528,593.60	36.2345276	-107.7363784
5,319.00	69.72	140.75	4,863.89	-747.37	-1,073.40	1,904,590.50	528,619.77	36.2344354	-107.7362898
5,364.00	73.30	140.51	4,878.16	-780.36	-1,046.33	1,904,557.55	528,646.87	36.2343447	-107.7361980
5,410.00	78.08	139.74	4,889.53	-814.55	-1,017.76	1,904,523.38	528,675.47	36.2342508	-107.7361011
5,455.00	82.69	140.17	4,897.04	-848.51	-989.23	1,904,489.45	528,704.05	36.2341575	-107.7360043
5,507.00	88.49	139.51	4,901.04	-888.12	-955.80	1,904,449.88	528,737.51	36.2340487	-107.7358910
Last SDI Curve MWD Survey									
5,549.00	89.43	137.77	4,901.80	-919.63	-928.06	1,904,418.40	528,765.29	36.2339621	-107.7357969
7" @ 5549' MD - 36.2339622, -107.7357969									
5,583.00	90.20	136.36	4,901.91	-944.52	-904.90	1,904,393.53	528,788.48	36.2338938	-107.7357184
First SDI Lateral MWD Survey									
5,675.00	90.22	134.82	4,901.57	-1,010.24	-840.52	1,904,327.88	528,852.92	36.2337132	-107.7355001
5,766.00	90.77	134.19	4,900.78	-1,074.03	-775.62	1,904,264.16	528,917.89	36.2335380	-107.7352800
5,857.00	90.81	135.10	4,899.53	-1,137.97	-710.88	1,904,200.29	528,982.69	36.2333624	-107.7350605
5,948.00	89.69	134.03	4,899.13	-1,201.82	-646.05	1,904,136.50	529,047.59	36.2331870	-107.7348407
6,039.00	90.37	134.06	4,899.08	-1,265.09	-580.64	1,904,073.30	529,113.06	36.2330132	-107.7346189
6,130.00	87.85	131.56	4,900.50	-1,326.91	-513.90	1,904,011.55	529,179.87	36.2328433	-107.7343926
6,221.00	90.91	131.83	4,901.48	-1,387.43	-445.97	1,903,951.10	529,247.87	36.2326771	-107.7341622
6,312.00	91.44	131.62	4,899.62	-1,447.98	-378.06	1,903,890.62	529,315.83	36.2325107	-107.7339320
6,403.00	90.20	130.45	4,898.31	-1,507.72	-309.43	1,903,830.95	529,384.53	36.2323466	-107.7336993
6,495.00	88.62	132.76	4,899.26	-1,568.80	-240.65	1,903,769.95	529,453.37	36.2321788	-107.7334661
6,586.00	88.46	132.01	4,901.58	-1,630.12	-173.46	1,903,708.69	529,520.63	36.2320104	-107.7332382
6,677.00	88.36	132.87	4,904.11	-1,691.50	-106.33	1,903,647.38	529,587.82	36.2318417	-107.7330106
6,768.00	90.67	135.48	4,904.88	-1,754.90	-41.07	1,903,584.05	529,653.14	36.2316676	-107.7327894
6,859.00	90.87	135.37	4,903.65	-1,819.72	22.79	1,903,519.30	529,717.07	36.2314895	-107.7325728
6,950.00	91.58	135.22	4,901.71	-1,884.38	86.79	1,903,454.70	529,781.14	36.2313119	-107.7323558
7,041.00	90.10	134.64	4,900.37	-1,948.64	151.21	1,903,390.51	529,845.62	36.2311353	-107.7321374
7,132.00	90.00	133.61	4,900.29	-2,012.00	216.53	1,903,327.22	529,911.01	36.2309613	-107.7319159
7,223.00	89.43	132.50	4,900.75	-2,074.12	283.02	1,903,265.17	529,977.56	36.2307906	-107.7316905
7,314.00	89.36	132.55	4,901.71	-2,135.63	350.08	1,903,203.73	530,044.69	36.2306217	-107.7314631
7,405.00	89.87	132.30	4,902.32	-2,197.02	417.25	1,903,142.41	530,111.92	36.2304530	-107.7312354
7,496.00	89.73	134.28	4,902.64	-2,259.41	483.48	1,903,080.09	530,178.22	36.2302816	-107.7310108
7,587.00	89.80	133.59	4,903.01	-2,322.55	549.02	1,903,017.02	530,243.82	36.2301081	-107.7307886
7,678.00	89.36	134.96	4,903.68	-2,386.07	614.17	1,902,953.56	530,309.04	36.2299336	-107.7305677
7,769.00	89.13	136.16	4,904.88	-2,451.04	677.88	1,902,888.66	530,372.81	36.2297552	-107.7303517
7,860.00	89.36	135.94	4,906.08	-2,516.55	741.03	1,902,823.22	530,436.03	36.2295752	-107.7301376
7,951.00	89.29	135.19	4,907.15	-2,581.52	804.73	1,902,758.31	530,499.80	36.2293967	-107.7299216
8,042.00	88.92	137.54	4,908.57	-2,647.37	867.51	1,902,692.53	530,562.66	36.2292158	-107.7297087
8,134.00	89.30	137.07	4,910.00	-2,714.98	929.89	1,902,624.98	530,625.10	36.2290301	-107.7294972
8,225.00	90.37	137.89	4,910.26	-2,782.05	991.39	1,902,557.98	530,686.67	36.2288458	-107.7292887
8,315.00	90.20	137.93	4,909.81	-2,848.83	1,051.72	1,902,491.25	530,747.07	36.2286623	-107.7290842

Company:	WPX Energy	Local Co-ordinate Reference:	Well W Lybrook UT #749H - Slot A1
Project:	T23N R9W	TVD Reference:	KB @ 6758.00usft (Aztec 1000)
Site:	W Lybrook 2309-12P	MD Reference:	KB @ 6758.00usft (Aztec 1000)
Well:	W Lybrook UT #749H	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	
8,407.00	89.26	136.35	4,910.25	-2,916.27	1,114.29	1,902,423.88	530,809.71	36.2284771	-107.7288720	
8,498.00	89.40	136.67	4,911.31	-2,982.28	1,176.92	1,902,357.93	530,872.41	36.2282957	-107.7286597	
8,589.00	88.52	136.30	4,912.96	-3,048.26	1,239.56	1,902,292.02	530,935.12	36.2281144	-107.7284473	
8,680.00	88.53	134.59	4,915.30	-3,113.09	1,303.39	1,902,227.26	530,999.01	36.2279364	-107.7282310	
8,771.00	88.93	135.15	4,917.32	-3,177.27	1,367.86	1,902,163.15	531,063.55	36.2277600	-107.7280124	
8,862.00	90.22	135.08	4,918.00	-3,241.74	1,432.08	1,902,098.74	531,127.84	36.2275829	-107.7277946	
8,953.00	90.10	135.77	4,917.74	-3,306.56	1,495.94	1,902,033.98	531,191.77	36.2274048	-107.7275781	
9,044.00	91.24	134.38	4,916.68	-3,370.99	1,560.20	1,901,969.63	531,256.09	36.2272278	-107.7273603	
9,135.00	91.67	134.32	4,914.37	-3,434.58	1,625.25	1,901,906.10	531,321.21	36.2270531	-107.7271397	
9,226.00	90.66	132.80	4,912.52	-3,497.27	1,691.18	1,901,843.48	531,387.20	36.2268809	-107.7269162	
9,317.00	92.45	134.09	4,910.05	-3,559.82	1,757.22	1,901,781.00	531,453.31	36.2267090	-107.7266923	
9,408.00	92.38	132.71	4,906.21	-3,622.29	1,823.28	1,901,718.60	531,519.43	36.2265374	-107.7264684	
9,498.00	91.74	133.61	4,902.98	-3,683.81	1,888.88	1,901,657.14	531,585.10	36.2263684	-107.7262459	
9,589.00	90.47	133.87	4,901.22	-3,746.72	1,954.62	1,901,594.31	531,650.90	36.2261956	-107.7260231	
9,680.00	89.60	133.76	4,901.17	-3,809.72	2,020.28	1,901,531.37	531,716.63	36.2260225	-107.7258005	
9,771.00	89.46	133.86	4,901.91	-3,872.71	2,085.95	1,901,468.45	531,782.36	36.2258494	-107.7255779	
9,862.00	90.00	134.33	4,902.34	-3,936.03	2,151.30	1,901,405.20	531,847.78	36.2256754	-107.7253563	
9,953.00	89.33	133.37	4,902.87	-3,999.07	2,216.92	1,901,342.22	531,913.47	36.2255023	-107.7251338	
10,043.00	87.69	132.02	4,905.21	-4,060.08	2,283.04	1,901,281.29	531,979.65	36.2253346	-107.7249097	
10,134.00	90.23	133.34	4,906.87	-4,121.75	2,349.92	1,901,219.68	532,046.60	36.2251652	-107.7246829	
10,225.00	89.63	134.62	4,906.98	-4,184.94	2,415.40	1,901,156.56	532,112.14	36.2249916	-107.7244610	
10,317.00	89.93	136.34	4,907.33	-4,250.54	2,479.91	1,901,091.04	532,176.71	36.2248114	-107.7242423	
10,408.00	90.71	136.40	4,906.82	-4,316.40	2,542.70	1,901,025.24	532,239.57	36.2246304	-107.7240294	
10,499.00	88.56	136.24	4,907.40	-4,382.21	2,605.54	1,900,959.49	532,302.48	36.2244496	-107.7238164	
10,589.00	88.96	136.18	4,909.35	-4,447.16	2,667.81	1,900,894.61	532,364.82	36.2242712	-107.7236053	
10,680.00	88.39	134.97	4,911.45	-4,512.13	2,731.48	1,900,829.70	532,428.56	36.2240927	-107.7233894	
10,771.00	92.31	136.34	4,910.90	-4,577.19	2,795.08	1,900,764.70	532,492.22	36.2239139	-107.7231738	
10,862.00	89.70	136.27	4,909.30	-4,642.97	2,857.93	1,900,698.99	532,555.14	36.2237332	-107.7229608	
10,953.00	88.64	134.82	4,910.62	-4,707.92	2,921.65	1,900,634.11	532,618.93	36.2235548	-107.7227448	
11,044.00	90.87	136.21	4,911.01	-4,772.84	2,985.41	1,900,569.26	532,682.76	36.2233764	-107.7225286	
11,135.00	90.00	135.32	4,910.32	-4,838.03	3,048.89	1,900,504.13	532,746.30	36.2231973	-107.7223134	
11,226.00	89.60	135.19	4,910.64	-4,902.67	3,112.95	1,900,439.56	532,810.43	36.2230197	-107.7220963	
11,317.00	90.48	135.17	4,910.57	-4,967.21	3,177.09	1,900,375.08	532,874.64	36.2228424	-107.7218788	
11,409.00	91.18	134.40	4,909.24	-5,032.01	3,242.38	1,900,310.35	532,940.00	36.2226643	-107.7216575	
11,500.00	90.13	135.04	4,908.20	-5,096.04	3,307.03	1,900,246.39	533,004.72	36.2224884	-107.7214383	
11,591.00	91.04	135.58	4,907.27	-5,160.73	3,371.03	1,900,181.77	533,068.78	36.2223107	-107.7212214	
11,682.00	89.97	134.70	4,906.47	-5,225.23	3,435.21	1,900,117.33	533,133.03	36.2221335	-107.7210038	
11,773.00	90.34	135.49	4,906.22	-5,289.68	3,499.45	1,900,052.95	533,197.34	36.2219564	-107.7207861	
11,864.00	90.27	134.81	4,905.74	-5,354.20	3,563.63	1,899,988.50	533,261.58	36.2217791	-107.7205685	
11,955.00	91.14	134.65	4,904.62	-5,418.23	3,628.27	1,899,924.53	533,326.29	36.2216032	-107.7203494	
12,047.00	88.99	136.14	4,904.51	-5,483.73	3,692.87	1,899,859.10	533,390.96	36.2214233	-107.7201304	
12,138.00	89.46	135.39	4,905.75	-5,548.92	3,756.35	1,899,793.98	533,454.50	36.2212441	-107.7199153	
12,228.00	91.04	136.10	4,905.35	-5,613.38	3,819.15	1,899,729.58	533,517.37	36.2210670	-107.7197024	
12,319.00	92.01	136.27	4,902.93	-5,679.02	3,882.13	1,899,664.01	533,580.42	36.2208867	-107.7194889	
12,409.00	89.80	134.84	4,901.51	-5,743.26	3,945.14	1,899,599.83	533,643.49	36.2207102	-107.7192753	
12,500.00	88.79	133.78	4,902.63	-5,806.82	4,010.25	1,899,536.34	533,708.67	36.2205356	-107.7190546	
12,591.00	92.28	135.07	4,901.78	-5,870.50	4,075.22	1,899,472.73	533,773.71	36.2203606	-107.7188344	
12,682.00	90.40	133.67	4,899.65	-5,934.12	4,140.25	1,899,409.18	533,838.80	36.2201858	-107.7186139	
12,773.00	90.67	132.82	4,898.80	-5,996.46	4,206.53	1,899,346.91	533,905.15	36.2200145	-107.7183892	
12,865.00	91.01	134.07	4,897.45	-6,059.72	4,273.32	1,899,283.72	533,972.00	36.2198407	-107.7181629	
12,956.00	91.80	134.03	4,895.22	-6,122.97	4,338.70	1,899,220.54	534,037.45	36.2196669	-107.7179412	
13,047.00	90.00	134.22	4,893.79	-6,186.31	4,404.02	1,899,157.26	534,102.83	36.2194929	-107.7177198	
13,138.00	90.34	133.21	4,893.52	-6,249.20	4,469.79	1,899,094.44	534,168.67	36.2193201	-107.7174969	
13,230.00	89.53	132.75	4,893.63	-6,311.92	4,537.09	1,899,031.79	534,236.04	36.2191478	-107.7172688	
13,321.00	90.70	134.13	4,893.44	-6,374.49	4,603.17	1,898,969.29	534,302.18	36.2189758	-107.7170448	

Company:	WPX Energy	Local Co-ordinate Reference:	Well W Lybrook UT #749H - Slot A1
Project:	T23N R9W	TVD Reference:	KB @ 6758.00usft (Aztec 1000)
Site:	W Lybrook 2309-12P	MD Reference:	KB @ 6758.00usft (Aztec 1000)
Well:	W Lybrook UT #749H	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
13,412.00	91.18	133.93	4,891.95	-6,437.73	4,668.58	1,898,906.12	534,367.66	36.2188021	-107.7168231
13,503.00	89.97	135.15	4,891.04	-6,501.55	4,733.44	1,898,842.36	534,432.58	36.2186267	-107.7166032
13,594.00	89.16	134.20	4,891.73	-6,565.53	4,798.15	1,898,778.45	534,497.36	36.2184509	-107.7163839
13,685.00	89.33	133.81	4,892.93	-6,628.74	4,863.59	1,898,715.31	534,562.87	36.2182772	-107.7161621
13,776.00	89.83	133.20	4,893.59	-6,691.39	4,929.60	1,898,652.73	534,628.94	36.2181051	-107.7159384
13,868.00	91.37	133.26	4,892.63	-6,754.39	4,996.62	1,898,589.79	534,696.03	36.2179320	-107.7157112
13,959.00	89.90	131.48	4,891.62	-6,815.71	5,063.85	1,898,528.55	534,763.31	36.2177635	-107.7154833
14,050.00	89.97	133.83	4,891.73	-6,877.37	5,130.77	1,898,466.96	534,830.30	36.2175941	-107.7152565
14,141.00	90.91	136.49	4,891.03	-6,941.88	5,194.92	1,898,402.51	534,894.53	36.2174168	-107.7150390
14,197.00	90.66	136.19	4,890.26	-6,982.39	5,233.58	1,898,362.04	534,933.23	36.2173055	-107.7149080
RSI @ 14,197' MD - 36.2173055, -107.7149080									
14,232.00	90.50	136.00	4,889.91	-7,007.61	5,257.85	1,898,336.85	534,957.52	36.2172362	-107.7148257
14,264.00	90.92	135.96	4,889.51	-7,030.62	5,280.09	1,898,313.86	534,979.78	36.2171730	-107.7147504
Last SDI Lateral MWD Survey									
14,320.00	90.92	135.96	4,888.61	-7,070.87	5,319.01	1,898,273.65	535,018.75	36.2170624	-107.7146184
Projection to TD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
451.00	450.98	-2.33	0.82	First SDI Surface MWD Survey
4,181.00	3,936.35	-280.27	-1,221.16	Last SDI Surface MWD Survey
4,272.00	4,024.68	-286.21	-1,242.17	First SDI Curve MWD Survey
5,507.00	4,901.04	-888.12	-955.80	Last SDI Curve MWD Survey
5,549.00	4,901.80	-919.63	-928.06	7" @ 5549' MD
5,549.00	4,901.80	-919.63	-928.06	36.2339622, -107.7357969
5,583.00	4,901.91	-944.52	-904.90	First SDI Lateral MWD Survey
14,197.00	4,890.26	-6,982.39	5,233.58	RSI @ 14,197' MD
14,197.00	4,890.26	-6,982.39	5,233.58	36.2173055, -107.7149080
14,264.00	4,889.51	-7,030.62	5,280.09	Last SDI Lateral MWD Survey
14,320.00	4,888.61	-7,070.87	5,319.01	Projection to TD

Checked By: _____ Approved By: _____ Date: _____



Company Name: WPX Energy
Project: T23N R9W
Site: W Lybrook 2309-12P
Well: W Lybrook UT #749H



Azimuths to True North
Magnetic North: 9.13°

Magnetic Field
Strength: 49805.5snT
Dip Angle: 62.88°
Date: 3/8/2016
Model: HDGM

WELL DETAILS: W Lybrook UT #749H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1905338.99	529692.39	36.2364886	-107.7326500

A1

