



Survey Certification

7327 West Barton Road
Casper, WY 82604
(307)-472-6621 Fax (307) 472-5439

Operator	HighPoint Resources
Well Name & No.	Critter Creek 16-6005BW ST 1
API #	05-123-47309
County & State	Weld County, CO
SDI Job #	OP.015462
Rig	Savanna 802
Survey Date	3-Jan-2019

I, Seth M. Burstad, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 6383 feet to a measured depth of 618062 feet is true and correct as determined from all available records.

Seth M. Burstad

Signature

4-Jan-2019

Date

Seth M. Burstad

Rockies Region Well Planner
Scientific Drilling - Rocky Mountain District



Project: Weld County, CO NAD 83
Site: Critter Creek 16 SE Pad
Well: Critter Creek 16-6005BW
Wellbore: ST 1
Design: ST 1

WELL DETAILS: Critter Creek 16-6005BW

GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802) 5251.30
Northing Easting Latitude Longitude
1578431.55 3295074.25 40° 54' 58.632 N 104° 25' 56.532 W

Design: ST 1 (Critter Creek 16-6005BW/ST 2)

Created By: Seth Burstad

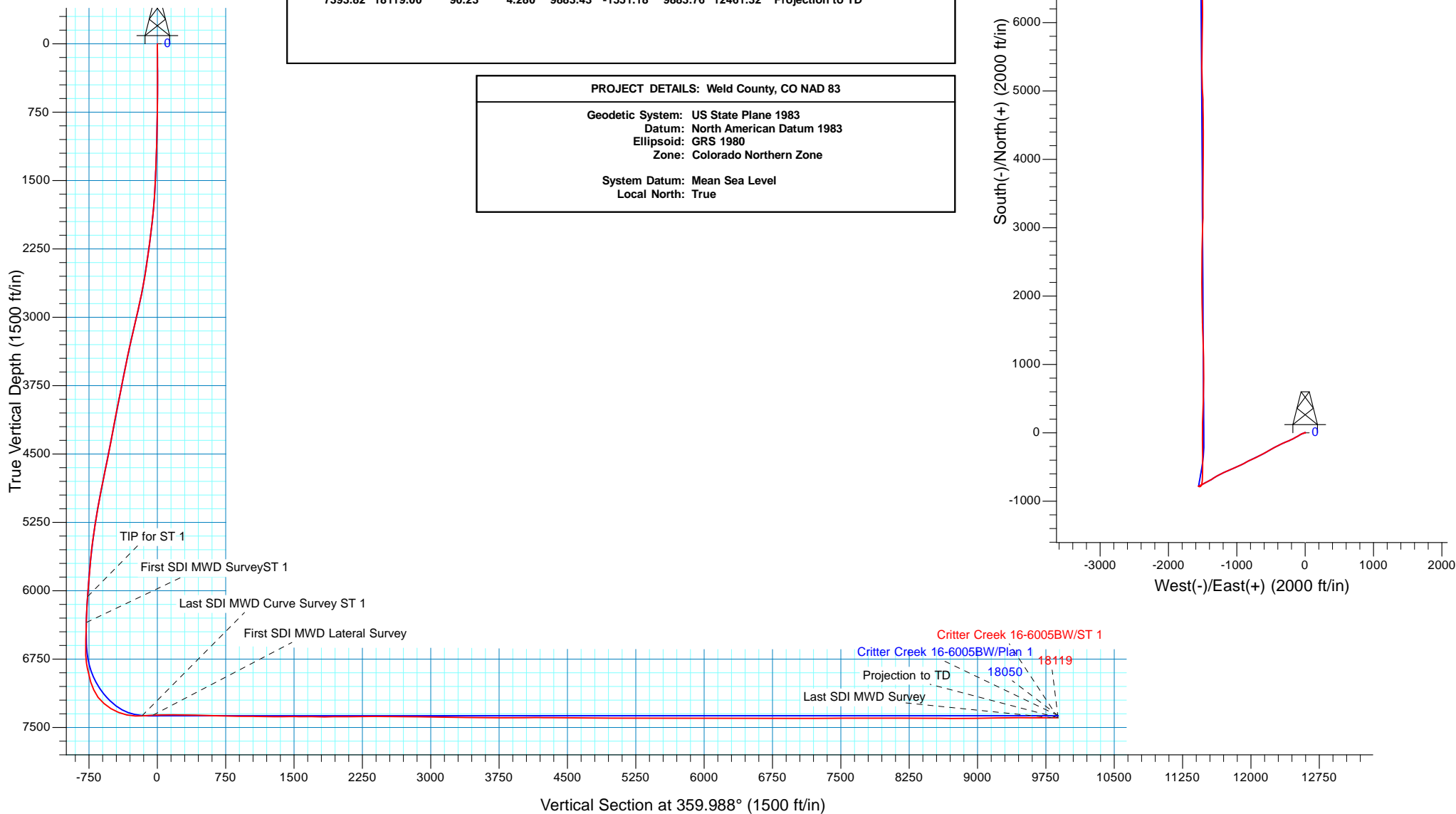
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
6064.19	6383.00	9.12	240.010	-765.52	-1528.91	-765.20	1717.08	TIP for ST 1
6349.37	6670.00	3.18	240.200	-780.44	-1556.33	-780.12	1748.30	First SDI MWD Survey ST 1
7373.01	8063.00	94.85	359.380	-168.67	-1501.67	-168.35	2406.29	Last SDI MWD Curve Survey ST 1
7365.52	8184.00	92.25	359.740	-47.91	-1502.60	-47.60	2527.05	First SDI MWD Lateral Survey
7394.05	18062.00	90.23	4.280	9826.59	-1555.43	9826.92	12404.32	Last SDI MWD Survey
7393.82	18119.00	90.23	4.280	9883.43	-1551.18	9883.76	12461.32	Projection to TD

PROJECT DETAILS: Weld County, CO NAD 83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level
Local North: True





HighPoint Resources

Weld County, CO NAD 83
Crittter Creek 16 SE Pad
Crittter Creek 16-6005BW

ST 1

Design: ST 1

Standard Survey Report

21 January, 2019



Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BW	North Reference:	True
Wellbore:	ST 1	Survey Calculation Method:	Minimum Curvature
Design:	ST 1	Database:	Casper District

Project	Weld County, CO NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Critter Creek 16 SE Pad, Site Center : Critter Creek 16-5708B			
Site Position:		Northing:	1,578,436.56 usft	Latitude:	40° 54' 58.651 N
From:	Lat/Long	Easting:	3,295,329.88 usft	Longitude:	104° 25' 53.202 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	Critter Creek 16-6005BW, 430' FSL 1079' FEL Sec 16 T11N R63W					
Well Position	+N/-S	0.00 ft	Northing:	1,578,431.54 usft	Latitude:	40° 54' 58.632 N
	+E/-W	0.00 ft	Easting:	3,295,074.26 usft	Longitude:	104° 25' 56.532 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	5,251.30 ft

Wellbore	ST 1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/6/2019	8.23	67.17	52,703

Design	ST 1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	6,383.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	359.988	

Survey Program	Date	1/21/2019			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
156.50	1,475.50	Survey #1 - Surface (OH)	OWSG MWD	OWSG MWD - Standard	
1,605.00	6,383.00	Survey #2 - Intermediate (OH)	OWSG MWD	OWSG MWD - Standard	
6,477.00	8,063.00	Survey #1 - Intermediate (ST 1)	OWSG MWD	OWSG MWD - Standard	
8,184.00	18,119.00	Survey #2 - Lateral (ST 1)	OWSG MWD	OWSG MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
156.50	0.79	36.360	156.50	0.87	0.64	0.87	0.50	0.50	0.00	
200.50	0.70	11.930	200.49	1.38	0.88	1.38	0.74	-0.20	-55.52	
245.50	0.48	316.420	245.49	1.78	0.80	1.78	1.30	-0.49	-123.36	
289.50	0.35	359.750	289.49	2.05	0.67	2.05	0.75	-0.30	98.48	
333.50	0.48	269.490	333.49	2.18	0.49	2.18	1.35	0.30	-205.14	
377.50	1.23	285.310	377.48	2.31	-0.15	2.31	1.77	1.70	35.95	
422.50	1.24	294.890	422.47	2.64	-1.06	2.64	0.46	0.02	21.29	

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BW	North Reference:	True
Wellbore:	ST 1	Survey Calculation Method:	Minimum Curvature
Design:	ST 1	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
466.50	1.32	269.320	466.46	2.83	-2.00	2.83	1.30	0.18	-58.11
510.50	1.58	264.390	510.45	2.77	-3.11	2.77	0.65	0.59	-11.20
554.50	1.98	245.360	554.43	2.39	-4.40	2.39	1.61	0.91	-43.25
599.50	1.85	243.480	599.40	1.74	-5.76	1.74	0.32	-0.29	-4.18
643.50	1.49	246.600	643.38	1.20	-6.92	1.20	0.84	-0.82	7.09
685.50	1.76	241.100	685.37	0.67	-7.98	0.67	0.74	0.64	-13.10
729.50	2.20	249.140	729.34	0.04	-9.37	0.04	1.18	1.00	18.27
774.50	1.98	245.230	774.31	-0.59	-10.88	-0.59	0.58	-0.49	-8.69
818.50	2.33	247.300	818.28	-1.25	-12.39	-1.25	0.81	0.80	4.70
862.50	2.86	244.350	862.23	-2.08	-14.21	-2.07	1.24	1.20	-6.70
906.50	2.87	241.760	906.18	-3.07	-16.17	-3.07	0.30	0.02	-5.89
938.50	2.94	239.430	938.14	-3.87	-17.58	-3.86	0.43	0.22	-7.28
970.50	3.34	251.390	970.09	-4.58	-19.17	-4.58	2.39	1.25	37.38
1,002.50	3.52	245.670	1,002.03	-5.29	-20.95	-5.28	1.21	0.56	-17.88
1,033.50	3.87	257.710	1,032.97	-5.90	-22.84	-5.90	2.74	1.13	38.84
1,065.50	4.08	253.950	1,064.89	-6.44	-24.99	-6.44	1.05	0.66	-11.75
1,097.50	4.61	255.570	1,096.80	-7.08	-27.33	-7.07	1.70	1.66	5.06
1,128.50	4.75	256.220	1,127.70	-7.70	-29.78	-7.69	0.48	0.45	2.10
1,192.50	5.80	250.950	1,191.42	-9.38	-35.41	-9.38	1.81	1.64	-8.23
1,224.50	5.84	249.670	1,223.26	-10.48	-38.47	-10.47	0.42	0.13	-4.00
1,255.50	5.67	250.160	1,254.10	-11.54	-41.38	-11.53	0.57	-0.55	1.58
1,287.50	5.71	247.030	1,285.94	-12.70	-44.34	-12.69	0.98	0.13	-9.78
1,319.50	5.76	243.040	1,317.78	-14.05	-47.23	-14.04	1.26	0.16	-12.47
1,350.50	5.45	242.900	1,348.64	-15.43	-49.93	-15.42	1.00	-1.00	-0.45
1,382.50	5.27	243.340	1,380.50	-16.78	-52.60	-16.77	0.58	-0.56	1.38
1,413.50	5.23	244.440	1,411.37	-18.03	-55.14	-18.02	0.35	-0.13	3.55
1,445.50	5.24	244.750	1,443.23	-19.28	-57.78	-19.27	0.09	0.03	0.97
1,475.50	5.67	245.320	1,473.10	-20.48	-60.37	-20.47	1.44	1.43	1.90
1,605.00	6.06	237.360	1,601.92	-26.84	-71.94	-26.83	0.70	0.30	-6.15
1,696.00	7.30	238.550	1,692.30	-32.45	-80.91	-32.43	1.37	1.36	1.31
1,787.00	9.69	238.550	1,782.30	-39.46	-92.38	-39.44	2.63	2.63	0.00
1,879.00	11.83	241.010	1,872.67	-48.07	-107.24	-48.05	2.38	2.33	2.67
1,970.00	12.90	240.940	1,961.56	-57.53	-124.28	-57.50	1.18	1.18	-0.08
2,061.00	14.27	242.040	2,050.01	-67.72	-143.06	-67.69	1.53	1.51	1.21
2,152.00	14.80	240.980	2,138.10	-78.62	-163.13	-78.58	0.65	0.58	-1.16
2,243.00	16.08	241.740	2,225.82	-90.22	-184.40	-90.18	1.42	1.41	0.84
2,337.00	18.33	244.020	2,315.60	-102.86	-209.15	-102.82	2.50	2.39	2.43
2,431.00	20.06	247.230	2,404.38	-115.58	-237.31	-115.53	2.16	1.84	3.41
2,525.00	21.90	247.380	2,492.14	-128.56	-268.36	-128.51	1.96	1.96	0.16
2,619.00	23.69	246.620	2,578.80	-142.80	-301.88	-142.74	1.93	1.90	-0.81
2,713.00	24.00	245.740	2,664.77	-158.15	-336.64	-158.08	0.50	0.33	-0.94
2,807.00	24.37	245.160	2,750.52	-174.15	-371.67	-174.07	0.47	0.39	-0.62
2,901.00	25.45	241.820	2,835.78	-191.84	-407.07	-191.75	1.89	1.15	-3.55

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Well:	Critter Creek 16-6005BW	North Reference:	True
Wellbore:	ST 1	Survey Calculation Method:	Minimum Curvature
Design:	ST 1	Database:	Casper District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,995.00	25.73	242.180	2,920.56	-210.90	-442.92	-210.80	0.34	0.30	0.38	
3,089.00	25.34	240.750	3,005.38	-230.25	-478.52	-230.15	0.78	-0.41	-1.52	
3,184.00	24.87	239.460	3,091.41	-250.33	-513.46	-250.23	0.76	-0.49	-1.36	
3,278.00	24.68	239.070	3,176.75	-270.46	-547.32	-270.35	0.27	-0.20	-0.41	
3,372.00	25.84	241.140	3,261.77	-290.44	-582.10	-290.32	1.55	1.23	2.20	
3,466.00	25.47	241.840	3,346.50	-309.87	-617.86	-309.74	0.51	-0.39	0.74	
3,560.00	25.12	244.860	3,431.49	-327.88	-653.74	-327.74	1.42	-0.37	3.21	
3,654.00	24.69	245.050	3,516.75	-344.64	-689.60	-344.50	0.47	-0.46	0.20	
3,746.00	24.18	244.490	3,600.51	-360.86	-724.03	-360.71	0.61	-0.55	-0.61	
3,841.00	24.15	244.260	3,687.18	-377.68	-759.09	-377.52	0.10	-0.03	-0.24	
3,935.00	24.67	243.760	3,772.78	-394.70	-794.01	-394.54	0.60	0.55	-0.53	
4,030.00	24.71	242.930	3,859.10	-412.51	-829.48	-412.33	0.37	0.04	-0.87	
4,123.00	24.09	241.770	3,943.79	-430.33	-863.51	-430.15	0.84	-0.67	-1.25	
4,217.00	22.95	242.010	4,029.98	-448.00	-896.59	-447.82	1.22	-1.21	0.26	
4,311.00	22.45	243.010	4,116.70	-464.75	-928.77	-464.56	0.67	-0.53	1.06	
4,405.00	21.97	246.350	4,203.73	-479.95	-960.87	-479.75	1.44	-0.51	3.55	
4,499.00	24.66	246.330	4,290.04	-494.88	-994.95	-494.67	2.86	2.86	-0.02	
4,592.00	26.63	246.890	4,373.88	-510.85	-1,031.89	-510.64	2.13	2.12	0.60	
4,687.00	27.09	245.890	4,458.63	-528.04	-1,071.22	-527.82	0.68	0.48	-1.05	
4,781.00	27.97	246.990	4,541.98	-545.40	-1,111.04	-545.17	1.08	0.94	1.17	
4,875.00	27.04	246.840	4,625.36	-562.43	-1,150.98	-562.18	0.99	-0.99	-0.16	
4,969.00	25.04	245.020	4,709.81	-579.23	-1,188.66	-578.98	2.29	-2.13	-1.94	
5,064.00	24.60	243.370	4,796.04	-596.58	-1,224.56	-596.33	0.86	-0.46	-1.74	
5,158.00	22.05	240.500	4,882.35	-614.05	-1,257.41	-613.78	2.97	-2.71	-3.05	
5,252.00	20.08	241.020	4,970.07	-630.56	-1,286.89	-630.29	2.11	-2.10	0.55	
5,347.00	19.12	239.450	5,059.56	-646.37	-1,314.55	-646.09	1.15	-1.01	-1.65	
5,441.00	18.08	237.050	5,148.65	-662.12	-1,340.05	-661.84	1.37	-1.11	-2.55	
5,535.00	17.70	236.870	5,238.11	-677.87	-1,364.26	-677.58	0.41	-0.40	-0.19	
5,629.00	17.14	242.260	5,327.80	-692.13	-1,388.49	-691.84	1.82	-0.60	5.73	
5,723.00	16.06	242.420	5,417.88	-704.59	-1,412.27	-704.30	1.15	-1.15	0.17	
5,817.00	14.70	243.380	5,508.51	-715.96	-1,434.46	-715.66	1.47	-1.45	1.02	
5,911.00	12.45	241.420	5,599.88	-726.15	-1,454.02	-725.85	2.44	-2.39	-2.09	
6,005.00	10.51	239.860	5,692.00	-735.30	-1,470.34	-735.00	2.09	-2.06	-1.66	
6,099.00	10.98	242.560	5,784.35	-743.73	-1,485.70	-743.42	0.73	0.50	2.87	
6,193.00	9.36	244.070	5,876.87	-751.20	-1,500.52	-750.89	1.75	-1.72	1.61	
6,288.00	10.04	244.330	5,970.51	-758.17	-1,514.93	-757.85	0.72	0.72	0.27	
6,383.00	9.12	240.010	6,064.19	-765.52	-1,528.91	-765.20	1.23	-0.97	-4.55	
TIP for ST 1										
6,477.00	7.02	242.960	6,157.25	-771.85	-1,540.48	-771.53	2.28	-2.23	3.14	
6,571.00	5.67	241.070	6,250.67	-776.71	-1,549.66	-776.39	1.45	-1.44	-2.01	
6,670.00	3.18	240.200	6,349.37	-780.44	-1,556.33	-780.12	2.52	-2.52	-0.88	
First SDI MWD Survey ST 1										
6,701.00	1.60	242.990	6,380.34	-781.07	-1,557.46	-780.74	5.11	-5.10	9.00	
6,733.00	3.29	259.840	6,412.31	-781.43	-1,558.76	-781.10	5.68	5.28	52.66	

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Survey										
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6,765.00	1.39	208.030	6,444.29	-781.94	-1,559.85	-781.61	8.33	-5.94	-161.91	
6,793.00	4.24	122.350	6,472.26	-782.79	-1,559.13	-782.46	15.57	10.18	-306.00	
6,859.00	5.34	118.340	6,538.03	-785.55	-1,554.37	-785.23	1.74	1.67	-6.08	
6,953.00	6.98	88.180	6,631.51	-787.45	-1,544.81	-787.13	3.80	1.74	-32.09	
7,047.00	9.61	65.190	6,724.54	-783.97	-1,531.97	-783.65	4.45	2.80	-24.46	
7,141.00	11.63	31.670	6,817.01	-772.61	-1,519.86	-772.29	6.80	2.15	-35.66	
7,204.00	12.54	15.740	6,878.63	-760.61	-1,514.67	-760.30	5.47	1.44	-25.29	
7,236.00	11.82	14.120	6,909.91	-754.09	-1,512.93	-753.78	2.49	-2.25	-5.06	
7,330.00	17.16	3.820	7,000.90	-730.90	-1,509.65	-730.58	6.29	5.68	-10.96	
7,424.00	24.21	7.400	7,088.79	-697.91	-1,506.24	-697.59	7.62	7.50	3.81	
7,519.00	36.38	0.630	7,170.69	-650.22	-1,503.41	-649.91	13.29	12.81	-7.13	
7,613.00	50.53	0.070	7,238.75	-585.74	-1,503.06	-585.42	15.06	15.05	-0.60	
7,707.00	58.71	3.080	7,293.14	-509.21	-1,500.85	-508.89	9.08	8.70	3.20	
7,801.00	68.20	0.520	7,335.10	-425.26	-1,498.29	-424.95	10.38	10.10	-2.72	
7,895.00	77.07	357.600	7,363.14	-335.66	-1,499.82	-335.35	9.89	9.44	-3.11	
7,989.00	88.33	0.320	7,375.06	-242.60	-1,501.48	-242.28	12.32	11.98	2.89	
8,063.00	94.85	359.380	7,373.01	-168.67	-1,501.67	-168.35	8.90	8.81	-1.27	
Last SDI MWD Curve Survey ST 1										
8,184.00	92.25	359.740	7,365.52	-47.91	-1,502.60	-47.60	2.17	-2.15	0.30	
First SDI MWD Lateral Survey										
8,278.00	91.58	359.910	7,362.38	46.03	-1,502.89	46.35	0.74	-0.71	0.18	
8,373.00	89.20	1.470	7,361.73	141.01	-1,501.74	141.33	3.00	-2.51	1.64	
8,467.00	89.43	2.000	7,362.86	234.96	-1,498.90	235.28	0.61	0.24	0.56	
8,561.00	88.66	2.210	7,364.42	328.89	-1,495.44	329.20	0.85	-0.82	0.22	
8,655.00	88.99	1.650	7,366.35	422.81	-1,492.28	423.13	0.69	0.35	-0.60	
8,749.00	89.03	1.690	7,367.97	516.76	-1,489.54	517.07	0.06	0.04	0.04	
8,843.00	88.36	1.050	7,370.11	610.71	-1,487.29	611.02	0.99	-0.71	-0.68	
8,938.00	88.12	0.370	7,373.03	705.65	-1,486.12	705.97	0.76	-0.25	-0.72	
9,032.00	88.66	359.910	7,375.67	799.62	-1,485.89	799.93	0.75	0.57	-0.49	
9,127.00	89.10	0.190	7,377.53	894.60	-1,485.80	894.91	0.55	0.46	0.29	
9,222.00	90.23	359.980	7,378.09	989.59	-1,485.66	989.91	1.21	1.19	-0.22	
9,316.00	88.73	358.510	7,378.94	1,083.58	-1,486.90	1,083.89	2.23	-1.60	-1.56	
9,410.00	88.89	358.290	7,380.89	1,177.52	-1,489.52	1,177.83	0.29	0.17	-0.23	
9,504.00	89.03	357.710	7,382.60	1,271.45	-1,492.80	1,271.76	0.63	0.15	-0.62	
9,598.00	91.17	358.140	7,382.43	1,365.38	-1,496.21	1,365.69	2.32	2.28	0.46	
9,692.00	90.57	358.370	7,381.01	1,459.32	-1,499.07	1,459.64	0.68	-0.64	0.24	
9,786.00	88.59	357.890	7,381.70	1,553.27	-1,502.14	1,553.58	2.17	-2.11	-0.51	
9,880.00	90.60	359.320	7,382.36	1,647.23	-1,504.42	1,647.55	2.62	2.14	1.52	
9,974.00	89.03	358.520	7,382.66	1,741.21	-1,506.20	1,741.52	1.87	-1.67	-0.85	
10,069.00	90.34	358.410	7,383.19	1,836.17	-1,508.74	1,836.49	1.38	1.38	-0.12	
10,162.00	90.44	359.310	7,382.55	1,929.15	-1,510.59	1,929.47	0.97	0.11	0.97	
10,257.00	89.23	0.500	7,382.83	2,024.15	-1,510.75	2,024.46	1.79	-1.27	1.25	
10,350.00	90.67	0.540	7,382.91	2,117.14	-1,509.91	2,117.46	1.55	1.55	0.04	
10,444.00	90.30	359.240	7,382.11	2,211.13	-1,510.09	2,211.45	1.44	-0.39	-1.38	

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BW	North Reference:	True
Wellbore:	ST 1	Survey Calculation Method:	Minimum Curvature
Design:	ST 1	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,538.00	90.97	358.960	7,381.07	2,305.12	-1,511.56	2,305.43	0.77	0.71	-0.30
10,632.00	89.93	0.190	7,380.33	2,399.11	-1,512.26	2,399.42	1.71	-1.11	1.31
10,726.00	90.77	359.970	7,379.76	2,493.10	-1,512.13	2,493.42	0.92	0.89	-0.23
10,821.00	90.54	1.530	7,378.67	2,588.09	-1,510.88	2,588.40	1.66	-0.24	1.64
10,915.00	89.09	1.670	7,378.97	2,682.05	-1,508.26	2,682.36	1.55	-1.54	0.15
11,010.00	88.22	1.920	7,381.20	2,776.97	-1,505.28	2,777.29	0.95	-0.92	0.26
11,101.00	88.62	1.210	7,383.71	2,867.90	-1,502.80	2,868.22	0.90	0.44	-0.78
11,192.00	90.07	0.700	7,384.75	2,958.88	-1,501.28	2,959.20	1.69	1.59	-0.56
11,283.00	88.96	1.400	7,385.52	3,049.86	-1,499.62	3,050.18	1.44	-1.22	0.77
11,373.00	90.10	1.880	7,386.26	3,139.82	-1,497.04	3,140.13	1.37	1.27	0.53
11,464.00	87.69	359.640	7,388.02	3,230.78	-1,495.83	3,231.10	3.62	-2.65	-2.46
11,555.00	88.49	359.750	7,391.05	3,321.73	-1,496.32	3,322.04	0.89	0.88	0.12
11,646.00	89.97	359.250	7,392.27	3,412.72	-1,497.11	3,413.03	1.72	1.63	-0.55
11,737.00	89.26	0.830	7,392.88	3,503.71	-1,497.05	3,504.02	1.90	-0.78	1.74
11,829.00	90.44	0.200	7,393.13	3,595.70	-1,496.22	3,596.02	1.45	1.28	-0.68
11,920.00	89.56	0.410	7,393.13	3,686.70	-1,495.74	3,687.02	0.99	-0.97	0.23
12,010.00	90.13	0.570	7,393.37	3,776.70	-1,494.97	3,777.01	0.66	0.63	0.18
12,102.00	91.17	0.270	7,392.33	3,868.69	-1,494.29	3,869.00	1.18	1.13	-0.33
12,193.00	90.67	1.030	7,390.86	3,959.67	-1,493.26	3,959.98	1.00	-0.55	0.84
12,285.00	89.40	1.090	7,390.81	4,051.65	-1,491.56	4,051.97	1.38	-1.38	0.07
12,376.00	90.07	0.480	7,391.23	4,142.64	-1,490.31	4,142.95	1.00	0.74	-0.67
12,467.00	88.93	359.680	7,392.02	4,233.64	-1,490.19	4,233.95	1.53	-1.25	-0.88
12,558.00	90.33	0.290	7,392.61	4,324.63	-1,490.21	4,324.94	1.68	1.54	0.67
12,649.00	89.80	358.920	7,392.51	4,415.63	-1,490.84	4,415.94	1.61	-0.58	-1.51
12,740.00	89.43	0.130	7,393.12	4,506.62	-1,491.59	4,506.93	1.39	-0.41	1.33
12,834.00	90.00	359.340	7,393.59	4,600.62	-1,492.03	4,600.93	1.04	0.61	-0.84
12,925.00	88.56	358.680	7,394.73	4,691.59	-1,493.60	4,691.91	1.74	-1.58	-0.73
13,017.00	89.30	359.030	7,396.45	4,783.56	-1,495.44	4,783.87	0.89	0.80	0.38
13,111.00	89.66	358.800	7,397.30	4,877.54	-1,497.22	4,877.85	0.45	0.38	-0.24
13,205.00	89.77	357.340	7,397.77	4,971.48	-1,500.38	4,971.79	1.56	0.12	-1.55
13,300.00	89.80	357.850	7,398.13	5,066.40	-1,504.37	5,066.71	0.54	0.03	0.54
13,394.00	90.10	358.010	7,398.21	5,160.33	-1,507.76	5,160.65	0.36	0.32	0.17
13,488.00	89.23	358.410	7,398.76	5,254.29	-1,510.70	5,254.60	1.02	-0.93	0.43
13,583.00	90.37	359.550	7,399.09	5,349.27	-1,512.39	5,349.58	1.70	1.20	1.20
13,677.00	90.13	0.000	7,398.68	5,443.26	-1,512.76	5,443.58	0.54	-0.26	0.48
13,772.00	89.87	0.550	7,398.68	5,538.26	-1,512.30	5,538.58	0.64	-0.27	0.58
13,865.00	90.00	0.960	7,398.78	5,631.25	-1,511.08	5,631.57	0.46	0.14	0.44
13,959.00	90.03	1.840	7,398.76	5,725.23	-1,508.78	5,725.54	0.94	0.03	0.94
14,053.00	89.80	1.720	7,398.90	5,819.18	-1,505.86	5,819.50	0.28	-0.24	-0.13
14,148.00	90.03	1.050	7,399.04	5,914.15	-1,503.57	5,914.47	0.75	0.24	-0.71
14,241.00	89.97	0.570	7,399.04	6,007.14	-1,502.25	6,007.46	0.52	-0.06	-0.52
14,336.00	90.13	0.230	7,398.96	6,102.14	-1,501.59	6,102.45	0.40	0.17	-0.36
14,431.00	90.10	358.480	7,398.77	6,197.13	-1,502.66	6,197.44	1.84	-0.03	-1.84

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BW	North Reference:	True
Wellbore:	ST 1	Survey Calculation Method:	Minimum Curvature
Design:	ST 1	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,525.00	90.13	358.750	7,398.58	6,291.10	-1,504.93	6,291.42	0.29	0.03	0.29
14,619.00	89.87	359.600	7,398.58	6,385.09	-1,506.28	6,385.41	0.95	-0.28	0.90
14,713.00	89.97	0.470	7,398.71	6,479.09	-1,506.22	6,479.41	0.93	0.11	0.93
14,807.00	90.03	0.210	7,398.71	6,573.09	-1,505.67	6,573.40	0.28	0.06	-0.28
14,902.00	89.53	359.010	7,399.07	6,668.08	-1,506.31	6,668.40	1.37	-0.53	-1.26
14,996.00	89.60	358.090	7,399.79	6,762.05	-1,508.69	6,762.37	0.98	0.07	-0.98
15,090.00	90.03	0.050	7,400.09	6,856.03	-1,510.22	6,856.35	2.13	0.46	2.09
15,183.00	89.90	0.970	7,400.15	6,949.03	-1,509.39	6,949.34	1.00	-0.14	0.99
15,277.00	89.97	0.140	7,400.25	7,043.02	-1,508.48	7,043.34	0.89	0.07	-0.88
15,371.00	90.13	358.490	7,400.17	7,137.01	-1,509.60	7,137.33	1.76	0.17	-1.76
15,466.00	89.70	358.730	7,400.31	7,231.98	-1,511.91	7,232.30	0.52	-0.45	0.25
15,560.00	90.07	0.020	7,400.50	7,325.98	-1,512.93	7,326.29	1.43	0.39	1.37
15,655.00	90.40	1.590	7,400.11	7,420.96	-1,511.60	7,421.28	1.69	0.35	1.65
15,749.00	90.50	0.890	7,399.37	7,514.94	-1,509.56	7,515.25	0.75	0.11	-0.74
15,843.00	90.50	359.680	7,398.55	7,608.93	-1,509.10	7,609.25	1.29	0.00	-1.29
15,937.00	90.27	357.100	7,397.92	7,702.88	-1,511.74	7,703.20	2.76	-0.24	-2.74
16,032.00	90.13	357.350	7,397.59	7,797.77	-1,516.34	7,798.09	0.30	-0.15	0.26
16,126.00	90.07	358.880	7,397.43	7,891.72	-1,519.43	7,892.04	1.63	-0.06	1.63
16,219.00	89.93	359.430	7,397.43	7,984.71	-1,520.80	7,985.03	0.61	-0.15	0.59
16,313.00	89.30	358.090	7,398.06	8,078.68	-1,522.83	8,079.00	1.58	-0.67	-1.43
16,407.00	89.97	358.230	7,398.66	8,172.63	-1,525.85	8,172.95	0.73	0.71	0.15
16,501.00	89.83	357.490	7,398.82	8,266.56	-1,529.36	8,266.88	0.80	-0.15	-0.79
16,596.00	89.60	358.110	7,399.29	8,361.49	-1,533.01	8,361.81	0.70	-0.24	0.65
16,690.00	90.44	358.460	7,399.26	8,455.45	-1,535.82	8,455.77	0.97	0.89	0.37
16,785.00	90.27	357.240	7,398.67	8,550.38	-1,539.39	8,550.70	1.30	-0.18	-1.28
16,880.00	88.96	355.450	7,399.31	8,645.18	-1,545.44	8,645.50	2.33	-1.38	-1.88
16,975.00	88.83	356.570	7,401.14	8,739.93	-1,552.05	8,740.25	1.19	-0.14	1.18
17,069.00	90.57	359.300	7,401.63	8,833.85	-1,555.44	8,834.18	3.44	1.85	2.90
17,164.00	90.84	359.220	7,400.47	8,928.84	-1,556.66	8,929.16	0.30	0.28	-0.08
17,258.00	91.54	359.150	7,398.51	9,022.81	-1,558.00	9,023.13	0.75	0.74	-0.07
17,352.00	90.67	359.930	7,396.70	9,116.78	-1,558.76	9,117.11	1.24	-0.93	0.83
17,447.00	91.34	0.030	7,395.03	9,211.77	-1,558.79	9,212.10	0.71	0.71	0.11
17,541.00	89.80	0.130	7,394.10	9,305.76	-1,558.66	9,306.09	1.64	-1.64	0.11
17,636.00	90.00	359.280	7,394.26	9,400.76	-1,559.15	9,401.09	0.92	0.21	-0.89
17,730.00	90.57	359.300	7,393.80	9,494.75	-1,560.31	9,495.08	0.61	0.61	0.02
17,825.00	89.63	359.520	7,393.63	9,589.74	-1,561.29	9,590.07	1.02	-0.99	0.23
17,919.00	89.87	0.390	7,394.04	9,683.74	-1,561.36	9,684.07	0.96	0.26	0.93
18,013.00	90.00	3.030	7,394.15	9,777.69	-1,558.56	9,778.02	2.81	0.14	2.81
18,062.00	90.23	4.280	7,394.05	9,826.59	-1,555.43	9,826.92	2.59	0.47	2.55
Last SDI MWD Survey									
18,119.00	90.23	4.280	7,393.82	9,883.43	-1,551.18	9,883.76	0.00	0.00	0.00
Projection to TD									



Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BW	North Reference:	True
Wellbore:	ST 1	Survey Calculation Method:	Minimum Curvature
Design:	ST 1	Database:	Casper District

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,383.00	6,064.19	-765.52	-1,528.91	TIP for ST 1
6,670.00	6,349.37	-780.44	-1,556.33	First SDI MWD Survey ST 1
8,063.00	7,373.01	-168.67	-1,501.67	Last SDI MWD Curve Survey ST 1
8,184.00	7,365.52	-47.91	-1,502.60	First SDI MWD Lateral Survey
18,062.00	7,394.05	9,826.59	-1,555.43	Last SDI MWD Survey
18,119.00	7,393.82	9,883.43	-1,551.18	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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