



Survey Certification

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

Operator	HighPoint Resources
Well Name & No.	Critter Creek 15-6104XBW
API #	05-123-47895
County & State	Weld County, CO
SDI Job #	OP.013447
Rig	Cade 24
Survey Date	6-Oct-2018

I, Seth M. Burstad, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 0 feet to a measured depth of 17762 feet is true and correct as determined from all available records.

Seth M. Burstad

Signature

7-Oct-2018

Date

Seth M. Burstad

Rockies Region Well Planner
Scientific Drilling - Rocky Mountain District



Project: Weld County, CO NAD 83
Site: Critter Creek 15 SW
Well: Critter Creek 15-6104XBW
Wellbore: OH
Design: OH



WELL DETAILS: Critter Creek 15-6104XBW

Design: OH (Critter Creek 15-6104XBW/OH)

GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Northing 1578443.39 Easting 3297343.16
Latitude 40° 54' 58.478 N Longitude 104° 25' 26.980 W

Created By: Seth Burstad

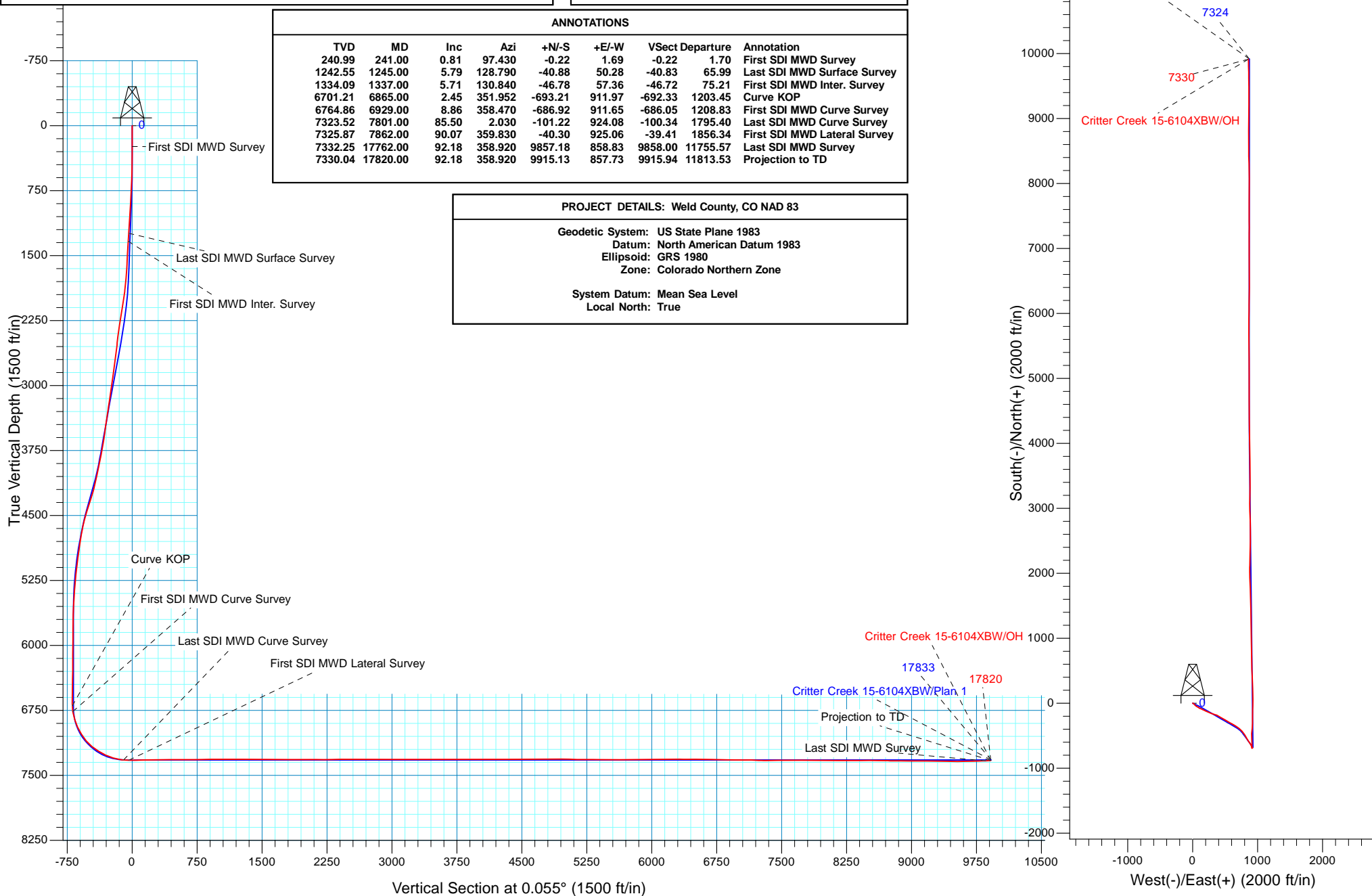
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
240.99	241.00	0.81	97.430	-0.22	1.69	-0.22	1.70	First SDI MWD Survey
1242.55	1245.00	5.79	128.790	-40.88	50.28	-40.83	65.99	Last SDI MWD Surface Survey
1334.09	1337.00	5.71	130.840	-46.78	57.36	-46.72	75.21	First SDI MWD Inter. Survey
6701.21	6865.00	2.45	351.952	-693.21	911.97	-692.33	1203.45	Curve KOP
6764.86	6929.00	8.86	358.470	-686.92	911.65	-686.05	1208.83	First SDI MWD Curve Survey
7323.52	7801.00	85.50	2.030	-101.22	924.08	-100.34	1795.40	Last SDI MWD Curve Survey
7325.87	7862.00	90.07	359.830	-40.30	925.06	-39.41	1856.34	First SDI MWD Lateral Survey
7332.25	17762.00	92.18	358.920	9857.18	858.83	9858.00	11755.57	Last SDI MWD Survey
7330.04	17820.00	92.18	358.920	9915.13	857.73	9915.94	11813.53	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 15 SW
Crittter Creek 15-6104XBW

OH

Design: OH

Standard Survey Report

07 October, 2018



Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 15-6104XBW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Site:	Critter Creek 15 SW	MD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Well:	Critter Creek 15-6104XBW	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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 15 SW			
Site Position:		Northing:	1,578,441.59 usft	Latitude:	40° 54' 58.471 N
From:	Lat/Long	Easting:	3,297,253.35 usft	Longitude:	104° 25' 28.150 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	Critter Creek 15-6104XBW, 400' FSL 1190' FWL Sec 15 T11N R63W					
Well Position	+N/-S	0.00 ft	Northing:	1,578,443.39 usft	Latitude:	40° 54' 58.478 N
	+E/-W	0.00 ft	Easting:	3,297,343.16 usft	Longitude:	104° 25' 26.980 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	5,242.30 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/11/2018	8.25	67.18	52,745

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	0.055	

Survey Program	Date	10/7/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
241.00	1,245.00	Survey #1 - Surface (OH)	OWSG MWD	OWSG MWD - Standard	
1,337.00	7,801.00	Survey #2 - Intermediate (OH)	OWSG MWD	OWSG MWD - Standard	
7,862.00	17,820.00	Survey #3 - Lateral (OH)	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
241.00	0.81	97.430	240.99	-0.22	1.69	-0.22	0.34	0.34	0.00
First SDI MWD Survey									
333.00	1.74	94.280	332.97	-0.41	3.73	-0.41	1.01	1.01	-3.42
424.00	1.84	114.070	423.92	-1.11	6.44	-1.10	0.68	0.11	21.75
515.00	2.56	123.160	514.86	-2.82	9.47	-2.81	0.88	0.79	9.99
606.00	2.71	137.120	605.76	-5.50	12.64	-5.49	0.72	0.16	15.34
698.00	3.27	133.130	697.64	-8.89	16.03	-8.88	0.65	0.61	-4.34
789.00	3.64	131.600	788.47	-12.58	20.09	-12.56	0.42	0.41	-1.68

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 15-6104XBW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Site:	Critter Creek 15 SW	MD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Well:	Critter Creek 15-6104XBW	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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)
879.00	4.37	134.970	878.25	-16.90	24.65	-16.88	0.85	0.81	3.74
971.00	5.22	138.160	969.93	-22.50	29.92	-22.47	0.97	0.92	3.47
1,062.00	5.85	132.020	1,060.50	-28.69	36.13	-28.65	0.95	0.69	-6.75
1,154.00	5.90	131.040	1,152.02	-34.93	43.18	-34.89	0.12	0.05	-1.07
1,245.00	5.79	128.790	1,242.55	-40.88	50.28	-40.83	0.28	-0.12	-2.47
Last SDI MWD Surface Survey									
1,337.00	5.71	130.840	1,334.09	-46.78	57.36	-46.72	0.24	-0.09	2.23
First SDI MWD Inter. Survey									
1,427.00	6.20	119.110	1,423.60	-52.07	65.00	-52.01	1.45	0.54	-13.03
1,510.00	5.52	117.340	1,506.17	-56.08	72.46	-56.01	0.85	-0.82	-2.13
1,609.00	5.21	117.170	1,604.73	-60.32	80.69	-60.24	0.31	-0.31	-0.17
1,701.00	6.60	127.470	1,696.25	-65.45	88.60	-65.36	1.89	1.51	11.20
1,792.00	11.22	120.780	1,786.13	-73.16	100.36	-73.07	5.19	5.08	-7.35
1,883.00	14.93	113.820	1,874.76	-82.43	118.70	-82.32	4.42	4.08	-7.65
1,974.00	18.31	113.090	1,961.94	-92.77	142.58	-92.64	3.72	3.71	-0.80
2,065.00	21.76	114.940	2,047.42	-105.50	171.03	-105.33	3.85	3.79	2.03
2,156.00	21.60	114.510	2,131.99	-119.56	201.57	-119.36	0.25	-0.18	-0.47
2,247.00	21.78	114.290	2,216.54	-133.45	232.20	-133.23	0.22	0.20	-0.24
2,338.00	21.65	112.750	2,301.09	-146.89	263.07	-146.64	0.64	-0.14	-1.69
2,432.00	20.87	110.090	2,388.69	-159.35	294.78	-159.06	1.32	-0.83	-2.83
2,525.00	19.65	109.240	2,475.94	-170.19	325.11	-169.88	1.35	-1.31	-0.91
2,619.00	18.15	103.210	2,564.87	-178.74	354.29	-178.40	2.62	-1.60	-6.41
2,712.00	17.68	118.610	2,653.41	-188.82	380.80	-188.46	5.10	-0.51	16.56
2,805.00	16.01	122.380	2,742.42	-202.45	404.03	-202.07	2.14	-1.80	4.05
2,898.00	14.73	119.660	2,832.10	-215.17	425.14	-214.77	1.58	-1.38	-2.92
2,992.00	16.71	119.050	2,922.58	-227.65	447.34	-227.22	2.11	2.11	-0.65
3,086.00	16.09	119.030	3,012.75	-240.53	470.54	-240.08	0.66	-0.66	-0.02
3,180.00	15.43	118.730	3,103.22	-252.87	492.90	-252.39	0.71	-0.70	-0.32
3,273.00	16.55	123.570	3,192.62	-266.14	514.78	-265.64	1.87	1.20	5.20
3,368.00	15.23	120.580	3,283.99	-279.97	536.80	-279.45	1.63	-1.39	-3.15
3,462.00	17.16	119.430	3,374.26	-293.06	559.51	-292.53	2.08	2.05	-1.22
3,556.00	16.31	118.630	3,464.28	-306.20	583.17	-305.64	0.94	-0.90	-0.85
3,650.00	15.75	116.630	3,554.62	-318.25	606.16	-317.66	0.84	-0.60	-2.13
3,744.00	18.22	120.630	3,644.52	-331.45	630.22	-330.85	2.91	2.63	4.26
3,838.00	18.71	124.660	3,733.68	-347.52	655.27	-346.89	1.45	0.52	4.29
3,932.00	19.04	122.830	3,822.63	-364.40	680.55	-363.75	0.72	0.35	-1.95
4,026.00	18.84	127.880	3,911.54	-382.04	705.42	-381.36	1.76	-0.21	5.37
4,120.00	17.62	130.820	4,000.83	-400.66	728.16	-399.96	1.62	-1.30	3.13
4,213.00	17.46	134.540	4,089.50	-419.64	748.76	-418.92	1.22	-0.17	4.00
4,307.00	18.28	139.180	4,178.97	-440.69	768.45	-439.95	1.75	0.87	4.94
4,400.00	19.91	147.860	4,266.87	-465.15	786.41	-464.39	3.52	1.75	9.33
4,494.00	21.03	147.550	4,354.93	-492.93	803.98	-492.16	1.20	1.19	-0.33
4,588.00	19.36	151.030	4,443.16	-520.80	820.58	-520.01	2.19	-1.78	3.70
4,682.00	17.35	150.200	4,532.37	-546.59	835.09	-545.79	2.16	-2.14	-0.88

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Well:	Critter Creek 15-6104XBW	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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)
4,776.00	14.73	146.850	4,622.70	-568.77	848.59	-567.95	2.95	-2.79	-3.56
4,870.00	12.05	143.160	4,714.14	-586.63	861.01	-585.80	2.99	-2.85	-3.93
4,963.00	11.09	141.100	4,805.25	-601.36	872.45	-600.52	1.12	-1.03	-2.22
5,057.00	9.38	152.780	4,897.76	-615.21	881.63	-614.36	2.85	-1.82	12.43
5,150.00	8.40	155.070	4,989.64	-628.11	887.96	-627.26	1.12	-1.05	2.46
5,244.00	7.65	149.980	5,082.72	-639.75	893.99	-638.89	1.10	-0.80	-5.41
5,337.00	6.77	151.700	5,174.99	-649.94	899.68	-649.08	0.97	-0.95	1.85
5,431.00	5.70	154.640	5,268.43	-659.04	904.31	-658.17	1.19	-1.14	3.13
5,525.00	4.84	154.640	5,362.03	-666.84	908.01	-665.97	0.91	-0.91	0.00
5,618.00	4.07	151.220	5,454.75	-673.28	911.28	-672.40	0.88	-0.83	-3.68
5,712.00	3.14	144.620	5,548.56	-678.30	914.37	-677.42	1.08	-0.99	-7.02
5,805.00	2.23	133.830	5,641.46	-681.63	917.15	-680.75	1.12	-0.98	-11.60
5,899.00	1.81	120.170	5,735.40	-683.64	919.76	-682.76	0.68	-0.45	-14.53
5,992.00	1.14	81.980	5,828.37	-684.25	921.94	-683.36	1.24	-0.72	-41.06
6,086.00	1.29	200.800	5,922.36	-685.11	922.49	-684.22	2.23	0.16	126.40
6,179.00	1.24	227.170	6,015.34	-686.77	921.38	-685.89	0.62	-0.05	28.35
6,273.00	0.87	258.160	6,109.33	-687.61	919.94	-686.73	0.71	-0.39	32.97
6,367.00	0.86	293.480	6,203.32	-687.47	918.59	-686.59	0.56	-0.01	37.57
6,460.00	1.05	244.700	6,296.30	-687.56	917.18	-686.68	0.87	0.20	-52.45
6,554.00	1.37	233.240	6,390.28	-688.60	915.50	-687.72	0.43	0.34	-12.19
6,646.00	1.37	213.360	6,482.26	-690.18	914.02	-689.30	0.51	0.00	-21.61
6,740.00	1.34	204.270	6,576.23	-692.12	912.95	-691.24	0.23	-0.03	-9.67
6,834.00	0.79	209.920	6,670.22	-693.68	912.17	-692.81	0.59	-0.59	6.01
6,865.00	2.45	351.952	6,701.21	-693.21	911.97	-692.33	10.05	5.36	458.17
Curve KOP									
6,929.00	8.86	358.470	6,764.86	-686.92	911.65	-686.05	10.05	10.01	10.18
First SDI MWD Curve Survey									
7,023.00	17.86	2.480	6,856.23	-665.24	912.08	-664.36	9.62	9.57	4.27
7,116.00	24.21	0.510	6,942.99	-631.89	912.87	-631.01	6.87	6.83	-2.12
7,210.00	31.71	357.430	7,025.96	-587.87	911.93	-586.99	8.12	7.98	-3.28
7,305.00	40.29	356.110	7,102.74	-532.18	908.72	-531.31	9.07	9.03	-1.39
7,398.00	50.48	2.410	7,168.01	-466.13	908.19	-465.26	11.96	10.96	6.77
7,492.00	58.95	7.000	7,222.28	-389.78	914.63	-388.90	9.85	9.01	4.88
7,586.00	64.10	1.560	7,267.11	-307.44	920.70	-306.56	7.47	5.48	-5.79
7,680.00	73.91	358.880	7,300.75	-219.80	920.97	-218.92	10.77	10.44	-2.85
7,774.00	81.79	3.360	7,320.53	-128.02	922.82	-127.14	9.59	8.38	4.77
7,801.00	85.50	2.030	7,323.52	-101.22	924.08	-100.34	14.59	13.74	-4.93
Last SDI MWD Curve Survey									
7,862.00	90.07	359.830	7,325.87	-40.30	925.06	-39.41	8.31	7.49	-3.61
First SDI MWD Lateral Survey									
7,955.00	90.44	0.560	7,325.46	52.70	925.38	53.59	0.88	0.40	0.78
8,049.00	91.11	358.660	7,324.19	146.68	924.74	147.57	2.14	0.71	-2.02
8,143.00	91.31	358.680	7,322.20	240.64	922.56	241.52	0.21	0.21	0.02
8,236.00	90.74	358.510	7,320.54	333.59	920.28	334.48	0.64	-0.61	-0.18

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Well:	Critter Creek 15-6104XBW	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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)
8,330.00	90.10	356.360	7,319.85	427.49	916.07	428.37	2.39	-0.68	-2.29
8,423.00	90.47	358.680	7,319.39	520.40	912.05	521.27	2.53	0.40	2.49
8,517.00	90.20	358.010	7,318.84	614.36	909.33	615.23	0.77	-0.29	-0.71
8,612.00	90.17	359.150	7,318.53	709.32	906.98	710.19	1.20	-0.03	1.20
8,706.00	91.34	358.830	7,317.29	803.30	905.32	804.17	1.29	1.24	-0.34
8,800.00	89.57	359.830	7,316.55	897.29	904.22	898.15	2.16	-1.88	1.06
8,894.00	90.00	359.190	7,316.90	991.28	903.42	992.15	0.82	0.46	-0.68
8,988.00	90.00	357.390	7,316.90	1,085.23	900.62	1,086.10	1.91	0.00	-1.91
9,081.00	90.20	1.010	7,316.74	1,178.21	899.32	1,179.07	3.90	0.22	3.89
9,175.00	89.93	358.130	7,316.63	1,272.20	898.61	1,273.06	3.08	-0.29	-3.06
9,269.00	89.97	359.770	7,316.71	1,366.18	896.89	1,367.04	1.75	0.04	1.74
9,363.00	89.70	358.000	7,316.98	1,460.16	895.06	1,461.01	1.90	-0.29	-1.88
9,457.00	89.93	357.440	7,317.29	1,554.08	891.32	1,554.94	0.64	0.24	-0.60
9,551.00	89.80	0.040	7,317.51	1,648.05	889.25	1,648.90	2.77	-0.14	2.77
9,644.00	89.90	358.470	7,317.75	1,741.04	888.05	1,741.89	1.69	0.11	-1.69
9,739.00	90.20	356.910	7,317.67	1,835.96	884.22	1,836.81	1.67	0.32	-1.64
9,833.00	90.13	358.060	7,317.40	1,929.87	880.09	1,930.71	1.23	-0.07	1.22
9,927.00	89.83	359.050	7,317.43	2,023.83	877.72	2,024.68	1.10	-0.32	1.05
10,021.00	89.26	2.160	7,318.18	2,117.81	878.71	2,118.66	3.36	-0.61	3.31
10,114.00	90.30	0.940	7,318.53	2,210.78	881.23	2,211.62	1.72	1.12	-1.31
10,208.00	90.77	1.160	7,317.66	2,304.76	882.95	2,305.60	0.55	0.50	0.23
10,302.00	90.34	1.530	7,316.74	2,398.73	885.16	2,399.57	0.60	-0.46	0.39
10,396.00	90.13	1.120	7,316.36	2,492.70	887.33	2,493.55	0.49	-0.22	-0.44
10,491.00	90.13	0.210	7,316.14	2,587.69	888.43	2,588.54	0.96	0.00	-0.96
10,581.00	89.80	359.510	7,316.20	2,677.69	888.21	2,678.54	0.86	-0.37	-0.78
10,671.00	89.97	358.730	7,316.38	2,767.68	886.83	2,768.53	0.89	0.19	-0.87
10,762.00	90.13	357.890	7,316.30	2,858.64	884.15	2,859.49	0.94	0.18	-0.92
10,854.00	89.40	357.450	7,316.68	2,950.56	880.41	2,951.41	0.93	-0.79	-0.48
10,945.00	89.93	0.510	7,317.21	3,041.53	878.79	3,042.38	3.41	0.58	3.36
11,037.00	89.36	1.280	7,317.78	3,133.52	880.23	3,134.36	1.04	-0.62	0.84
11,128.00	89.80	1.090	7,318.45	3,224.50	882.11	3,225.34	0.53	0.48	-0.21
11,220.00	90.13	0.320	7,318.50	3,316.49	883.24	3,317.34	0.91	0.36	-0.84
11,311.00	90.67	359.320	7,317.87	3,407.49	882.95	3,408.33	1.25	0.59	-1.10
11,402.00	90.44	359.870	7,316.99	3,498.48	882.31	3,499.32	0.66	-0.25	0.60
11,493.00	90.84	358.650	7,315.97	3,589.46	881.13	3,590.31	1.41	0.44	-1.34
11,584.00	89.20	0.150	7,315.94	3,680.45	880.18	3,681.30	2.44	-1.80	1.65
11,675.00	89.87	359.760	7,316.68	3,771.45	880.11	3,772.29	0.85	0.74	-0.43
11,766.00	89.60	359.980	7,317.10	3,862.45	879.90	3,863.29	0.38	-0.30	0.24
11,857.00	89.70	359.380	7,317.65	3,953.44	879.40	3,954.29	0.67	0.11	-0.66
11,949.00	89.93	359.280	7,317.95	4,045.44	878.32	4,046.28	0.27	0.25	-0.11
12,040.00	89.97	358.780	7,318.03	4,136.42	876.78	4,137.26	0.55	0.04	-0.55
12,131.00	91.61	358.150	7,316.77	4,227.38	874.34	4,228.22	1.93	1.80	-0.69
12,222.00	90.87	358.700	7,314.81	4,318.32	871.84	4,319.16	1.01	-0.81	0.60

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 15-6104XBW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Site:	Critter Creek 15 SW	MD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Well:	Critter Creek 15-6104XBW	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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)	
12,313.00	89.16	359.020	7,314.78	4,409.30	870.03	4,410.13	1.91	-1.88	0.35	
12,404.00	89.73	0.010	7,315.66	4,500.29	869.26	4,501.12	1.26	0.63	1.09	
12,495.00	89.87	0.000	7,315.98	4,591.29	869.27	4,592.12	0.15	0.15	-0.01	
12,587.00	91.54	0.320	7,314.85	4,683.28	869.53	4,684.11	1.85	1.82	0.35	
12,678.00	89.97	359.600	7,313.65	4,774.27	869.46	4,775.10	1.90	-1.73	-0.79	
12,769.00	91.21	359.830	7,312.71	4,865.26	869.01	4,866.09	1.39	1.36	0.25	
12,859.00	88.33	0.360	7,313.07	4,955.25	869.16	4,956.08	3.25	-3.20	0.59	
12,950.00	88.73	359.130	7,315.41	5,046.22	868.75	5,047.05	1.42	0.44	-1.35	
13,041.00	89.03	359.250	7,317.19	5,137.19	867.47	5,138.02	0.36	0.33	0.13	
13,131.00	89.93	0.890	7,318.00	5,227.18	867.58	5,228.01	2.08	1.00	1.82	
13,222.00	89.56	359.520	7,318.41	5,318.18	867.90	5,319.01	1.56	-0.41	-1.51	
13,313.00	89.90	359.580	7,318.84	5,409.18	867.19	5,410.01	0.38	0.37	0.07	
13,404.00	90.07	359.790	7,318.86	5,500.18	866.69	5,501.00	0.30	0.19	0.23	
13,496.00	90.23	358.870	7,318.62	5,592.17	865.61	5,593.00	1.02	0.17	-1.00	
13,587.00	89.83	0.230	7,318.57	5,683.16	864.90	5,683.99	1.56	-0.44	1.49	
13,678.00	90.20	358.000	7,318.55	5,774.15	863.49	5,774.97	2.48	0.41	-2.45	
13,769.00	89.63	1.980	7,318.68	5,865.13	863.48	5,865.95	4.42	-0.63	4.37	
13,860.00	90.54	0.260	7,318.55	5,956.10	865.26	5,956.93	2.14	1.00	-1.89	
13,951.00	90.94	1.450	7,317.37	6,047.09	866.61	6,047.91	1.38	0.44	1.31	
14,042.00	91.64	359.700	7,315.33	6,138.05	867.53	6,138.88	2.07	0.77	-1.92	
14,133.00	90.40	1.870	7,313.71	6,229.02	868.77	6,229.85	2.75	-1.36	2.38	
14,224.00	88.39	0.970	7,314.67	6,319.98	871.03	6,320.82	2.42	-2.21	-0.99	
14,316.00	89.63	0.550	7,316.26	6,411.96	872.25	6,412.80	1.42	1.35	-0.46	
14,408.00	91.04	0.980	7,315.72	6,503.95	873.48	6,504.78	1.60	1.53	0.47	
14,499.00	88.32	359.020	7,316.23	6,594.93	873.48	6,595.77	3.68	-2.99	-2.15	
14,590.00	88.59	359.430	7,318.68	6,685.89	872.25	6,686.73	0.54	0.30	0.45	
14,681.00	89.03	359.890	7,320.57	6,776.87	871.71	6,777.70	0.70	0.48	0.51	
14,773.00	89.46	357.840	7,321.78	6,868.84	869.88	6,869.67	2.28	0.47	-2.23	
14,864.00	89.43	1.320	7,322.66	6,959.82	869.22	6,960.65	3.82	-0.03	3.82	
14,955.00	90.03	0.150	7,323.09	7,050.81	870.38	7,051.64	1.44	0.66	-1.29	
15,047.00	88.29	359.520	7,324.44	7,142.79	870.12	7,143.63	2.01	-1.89	-0.68	
15,138.00	87.72	0.400	7,327.61	7,233.74	870.06	7,234.57	1.15	-0.63	0.97	
15,229.00	89.87	0.410	7,329.52	7,324.71	870.70	7,325.54	2.36	2.36	0.01	
15,320.00	91.21	359.240	7,328.67	7,415.70	870.42	7,416.53	1.95	1.47	-1.29	
15,411.00	90.44	358.610	7,327.35	7,506.68	868.71	7,507.51	1.09	-0.85	-0.69	
15,502.00	89.97	1.300	7,327.03	7,597.67	868.64	7,598.50	3.00	-0.52	2.96	
15,594.00	91.54	359.790	7,325.82	7,689.65	869.52	7,690.48	2.37	1.71	-1.64	
15,685.00	89.09	0.200	7,325.32	7,780.64	869.51	7,781.47	2.73	-2.69	0.45	
15,777.00	89.10	1.300	7,326.77	7,872.62	870.71	7,873.45	1.20	0.01	1.20	
15,868.00	89.60	0.030	7,327.80	7,963.61	871.77	7,964.44	1.50	0.55	-1.40	
15,958.00	89.26	359.640	7,328.70	8,053.60	871.51	8,054.43	0.57	-0.38	-0.43	
16,049.00	89.90	359.240	7,329.36	8,144.59	870.62	8,145.42	0.83	0.70	-0.44	
16,141.00	90.23	358.090	7,329.26	8,236.57	868.48	8,237.40	1.30	0.36	-1.25	

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 15-6104XBW
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Site:	Critter Creek 15 SW	MD Reference:	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
Well:	Critter Creek 15-6104XBW	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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)	
16,232.00	90.07	358.070	7,329.02	8,327.51	865.43	8,328.34	0.18	-0.18	-0.02	
16,323.00	89.40	359.680	7,329.44	8,418.49	863.64	8,419.32	1.92	-0.74	1.77	
16,414.00	91.21	359.890	7,328.96	8,509.49	863.30	8,510.31	2.00	1.99	0.23	
16,505.00	88.52	0.410	7,329.17	8,600.48	863.54	8,601.30	3.01	-2.96	0.57	
16,596.00	88.73	358.470	7,331.36	8,691.44	862.65	8,692.27	2.14	0.23	-2.13	
16,687.00	90.13	1.100	7,332.26	8,782.43	862.31	8,783.25	3.27	1.54	2.89	
16,778.00	89.23	359.620	7,332.77	8,873.42	862.88	8,874.24	1.90	-0.99	-1.63	
16,869.00	89.56	0.190	7,333.73	8,964.41	862.73	8,965.24	0.72	0.36	0.63	
16,962.00	89.66	1.210	7,334.36	9,057.40	863.87	9,058.23	1.10	0.11	1.10	
17,056.00	89.87	0.320	7,334.75	9,151.39	865.12	9,152.22	0.97	0.22	-0.95	
17,150.00	89.20	0.210	7,335.51	9,245.39	865.56	9,246.22	0.72	-0.71	-0.12	
17,243.00	88.76	359.620	7,337.17	9,338.37	865.42	9,339.20	0.79	-0.47	-0.63	
17,338.00	88.89	359.660	7,339.12	9,433.35	864.82	9,434.18	0.14	0.14	0.04	
17,432.00	90.47	359.700	7,339.64	9,527.35	864.30	9,528.17	1.68	1.68	0.04	
17,525.00	90.64	359.690	7,338.74	9,620.34	863.80	9,621.17	0.18	0.18	-0.01	
17,619.00	91.64	359.220	7,336.87	9,714.32	862.91	9,715.14	1.18	1.06	-0.50	
17,713.00	91.88	357.610	7,333.98	9,808.23	860.31	9,809.05	1.73	0.26	-1.71	
17,762.00	92.18	358.920	7,332.25	9,857.18	858.83	9,858.00	2.74	0.61	2.67	
Last SDI MWD Survey										
17,820.00	92.18	358.920	7,330.04	9,915.13	857.73	9,915.94	0.00	0.00	0.00	
Projection to TD										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
241.00	240.99	-0.22	1.69	First SDI MWD Survey	
1,245.00	1,242.55	-40.88	50.28	Last SDI MWD Surface Survey	
1,337.00	1,334.09	-46.78	57.36	First SDI MWD Inter. Survey	
6,865.00	6,701.21	-693.21	911.97	Curve KOP	
6,929.00	6,764.86	-686.92	911.65	First SDI MWD Curve Survey	
7,801.00	7,323.52	-101.22	924.08	Last SDI MWD Curve Survey	
7,862.00	7,325.87	-40.30	925.06	First SDI MWD Lateral Survey	
17,762.00	7,332.25	9,857.18	858.83	Last SDI MWD Survey	
17,820.00	7,330.04	9,915.13	857.73	Projection to TD	

Checked By: _____	Approved By: _____	Date: _____
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