



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

Project: Weld County, CO NAD 83
Site: Critter Creek 16 SE Pad
Well: Critter Creek 16-6005BW
Wellbore: OH
Design: Plan 2



Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 52777.6nT
Dip Angle: 67.20°
Date: 5/21/2018
Model: HDGM

Plan: Plan 2 (Critter Creek 16-6005BW/OH)

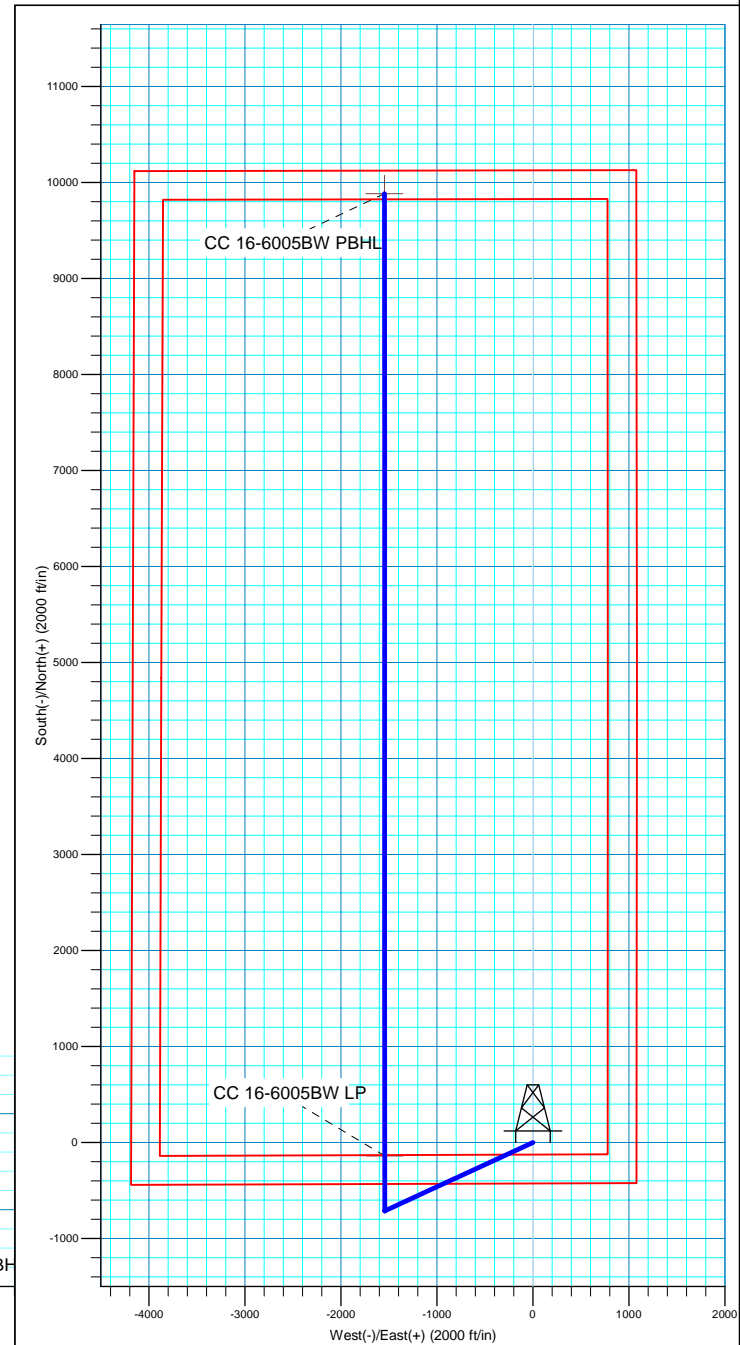
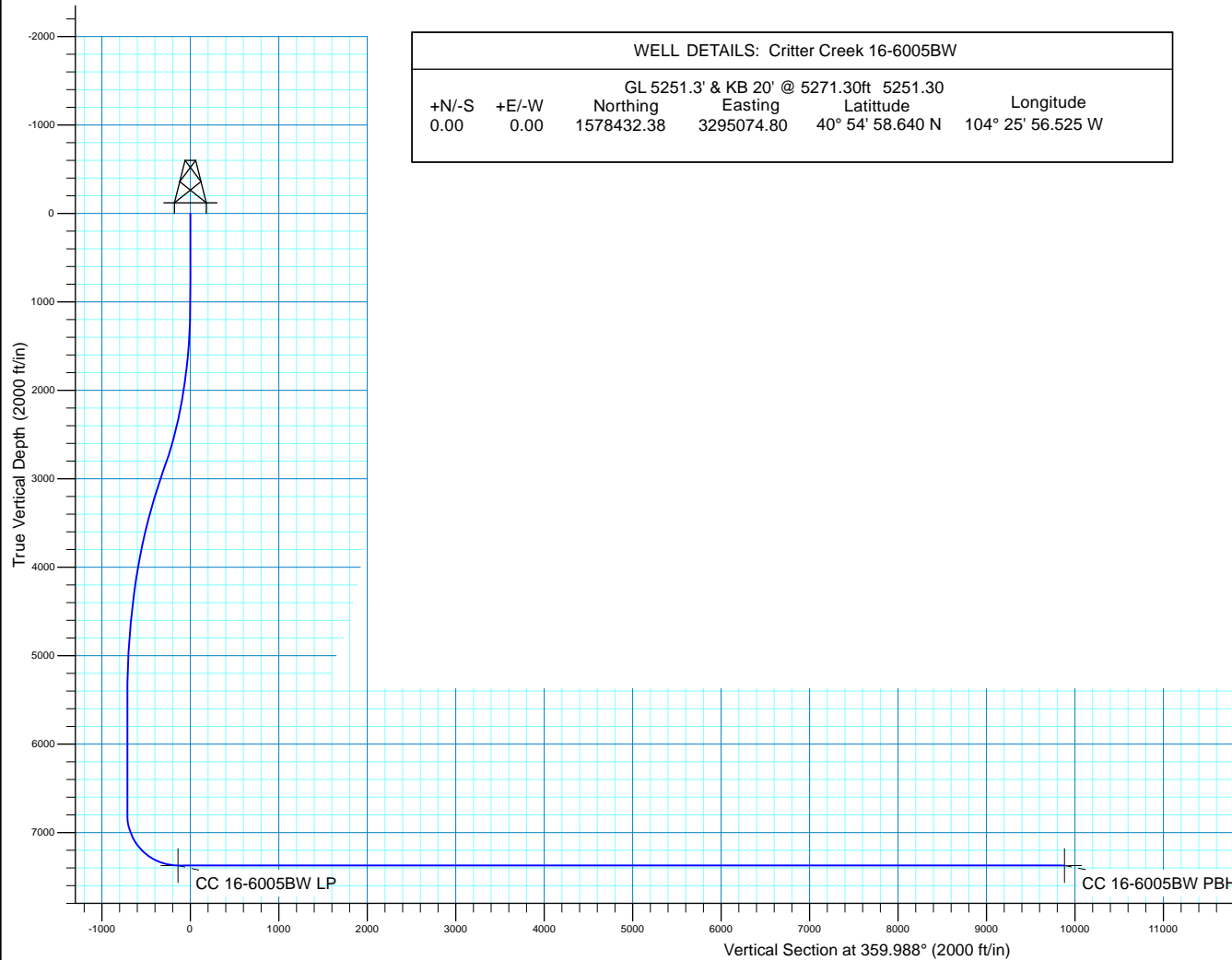
Created By: Seth Burstad

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.00	0.00
2963.88	39.28	245.238	2813.64	-271.07	-587.69	2.00	245.24	-270.95
3264.01	39.28	245.238	3045.96	-350.66	-760.22	0.00	0.00	-350.50
5882.51	0.00	0.000	5464.14	-712.09	-1543.80	1.50	180.00	-711.77
7219.41	0.00	0.000	6801.04	-712.09	-1543.80	0.00	0.00	-711.77
8119.41	90.00	359.988	7374.00	-139.13	-1543.92	10.00	359.99	-138.81
18142.11	90.00	359.988	7374.00	9883.57	-1546.05	0.00	0.00	9883.89

WELL DETAILS: Critter Creek 16-6005BW

GL 5251.3' & KB 20' @ 5271.30ft 5251.30						Longitude	
+N/-S	+E/-W	Northing	Easting	Latitude			
0.00	0.00	1578432.38	3295074.80	40° 54' 58.640 N	104° 25' 56.525 W		



HighPoint Resources

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

OH

Plan: Plan 2

Standard Planning Report

21 May, 2018



Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Company:	HighPoint Resources	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Site:	Critter Creek 16 SE Pad	North Reference:	True
Well:	Critter Creek 16-6005BW	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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	-1.10 ft	Northing:	1,578,432.38 usft
	+E/-W	-255.11 ft	Easting:	3,295,074.80 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft
			Ground Level:	5,251.30 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/21/2018	8.28	67.20	52,778

Design	Plan 2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	359.988

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,963.88	39.28	245.238	2,813.64	-271.07	-587.69	2.00	2.00	0.00	245.24	
3,264.01	39.28	245.238	3,045.96	-350.66	-760.22	0.00	0.00	0.00	0.00	
5,882.51	0.00	0.000	5,464.14	-712.09	-1,543.80	1.50	-1.50	0.00	180.00	
7,219.41	0.00	0.000	6,801.04	-712.09	-1,543.80	0.00	0.00	0.00	0.00	
8,119.41	90.00	359.988	7,374.00	-139.13	-1,543.92	10.00	10.00	0.00	359.99	
18,142.11	90.00	359.988	7,374.00	9,883.57	-1,546.05	0.00	0.00	0.00	0.00	CC 16-6005BW PBHL

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Company:	HighPoint Resources	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Site:	Critter Creek 16 SE Pad	North Reference:	True
Well:	Critter Creek 16-6005BW	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

Planned 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
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,100.00	2.00	245.238	1,099.98	-0.73	-1.58	-0.73	2.00	2.00	0.00
1,200.00	4.00	245.238	1,199.84	-2.92	-6.34	-2.92	2.00	2.00	0.00
1,300.00	6.00	245.238	1,299.45	-6.57	-14.25	-6.57	2.00	2.00	0.00
1,400.00	8.00	245.238	1,398.70	-11.68	-25.32	-11.67	2.00	2.00	0.00
1,500.00	10.00	245.238	1,497.47	-18.23	-39.52	-18.22	2.00	2.00	0.00
1,600.00	12.00	245.238	1,595.62	-26.22	-56.85	-26.21	2.00	2.00	0.00
1,700.00	14.00	245.238	1,693.06	-35.64	-77.27	-35.63	2.00	2.00	0.00
1,800.00	16.00	245.238	1,789.64	-46.48	-100.77	-46.46	2.00	2.00	0.00
1,900.00	18.00	245.238	1,885.27	-58.73	-127.32	-58.70	2.00	2.00	0.00
2,000.00	20.00	245.238	1,979.82	-72.36	-156.88	-72.33	2.00	2.00	0.00
2,100.00	22.00	245.238	2,073.17	-87.37	-189.42	-87.33	2.00	2.00	0.00
2,200.00	24.00	245.238	2,165.21	-103.74	-224.90	-103.69	2.00	2.00	0.00
2,300.00	26.00	245.238	2,255.84	-121.44	-263.28	-121.38	2.00	2.00	0.00
2,400.00	28.00	245.238	2,344.94	-140.45	-304.50	-140.39	2.00	2.00	0.00
2,500.00	30.00	245.238	2,432.39	-160.76	-348.52	-160.68	2.00	2.00	0.00
2,600.00	32.00	245.238	2,518.11	-182.33	-395.29	-182.25	2.00	2.00	0.00
2,700.00	34.00	245.238	2,601.97	-205.14	-444.74	-205.05	2.00	2.00	0.00
2,800.00	36.00	245.238	2,683.88	-229.16	-496.82	-229.06	2.00	2.00	0.00
2,900.00	38.00	245.238	2,763.74	-254.37	-551.47	-254.25	2.00	2.00	0.00
2,963.88	39.28	245.238	2,813.64	-271.07	-587.69	-270.95	2.00	2.00	0.00
Start 300.13 hold at 2963.88 MD									
3,000.00	39.28	245.238	2,841.60	-280.65	-608.45	-280.52	0.00	0.00	0.00
3,100.00	39.28	245.238	2,919.00	-307.17	-665.94	-307.03	0.00	0.00	0.00
3,200.00	39.28	245.238	2,996.41	-333.69	-723.42	-333.53	0.00	0.00	0.00
3,264.01	39.28	245.238	3,045.96	-350.66	-760.22	-350.50	0.00	0.00	0.00
Start Drop -1.50									
3,300.00	38.74	245.238	3,073.93	-360.15	-780.79	-359.98	1.50	-1.50	0.00
3,400.00	37.24	245.238	3,152.74	-385.93	-836.68	-385.75	1.50	-1.50	0.00
3,500.00	35.74	245.238	3,233.14	-410.83	-890.68	-410.64	1.50	-1.50	0.00
3,600.00	34.24	245.238	3,315.06	-434.85	-942.74	-434.65	1.50	-1.50	0.00
3,700.00	32.74	245.238	3,398.46	-457.96	-992.84	-457.75	1.50	-1.50	0.00
3,800.00	31.24	245.238	3,483.27	-480.14	-1,040.95	-479.93	1.50	-1.50	0.00
3,900.00	29.74	245.238	3,569.45	-501.39	-1,087.01	-501.17	1.50	-1.50	0.00
4,000.00	28.24	245.238	3,656.92	-521.69	-1,131.02	-521.46	1.50	-1.50	0.00
4,100.00	26.74	245.238	3,745.62	-541.02	-1,172.93	-540.78	1.50	-1.50	0.00
4,200.00	25.24	245.238	3,835.51	-559.38	-1,212.72	-559.12	1.50	-1.50	0.00
4,300.00	23.74	245.238	3,926.51	-576.74	-1,250.36	-576.47	1.50	-1.50	0.00
4,400.00	22.24	245.238	4,018.57	-593.09	-1,285.82	-592.82	1.50	-1.50	0.00
4,500.00	20.74	245.238	4,111.62	-608.44	-1,319.08	-608.16	1.50	-1.50	0.00
4,600.00	19.24	245.238	4,205.59	-622.75	-1,350.12	-622.47	1.50	-1.50	0.00
4,700.00	17.74	245.238	4,300.43	-636.03	-1,378.91	-635.74	1.50	-1.50	0.00

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Company:	HighPoint Resources	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Site:	Critter Creek 16 SE Pad	North Reference:	True
Well:	Critter Creek 16-6005BW	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

Planned 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)
4,800.00	16.24	245.238	4,396.06	-648.27	-1,405.44	-647.98	1.50	-1.50	0.00
4,900.00	14.74	245.238	4,492.43	-659.45	-1,429.69	-659.16	1.50	-1.50	0.00
5,000.00	13.24	245.238	4,589.46	-669.58	-1,451.64	-669.27	1.50	-1.50	0.00
5,100.00	11.74	245.238	4,687.09	-678.64	-1,471.27	-678.33	1.50	-1.50	0.00
5,200.00	10.24	245.238	4,785.25	-686.62	-1,488.58	-686.31	1.50	-1.50	0.00
5,300.00	8.74	245.238	4,883.88	-693.52	-1,503.55	-693.21	1.50	-1.50	0.00
5,400.00	7.24	245.238	4,982.91	-699.34	-1,516.16	-699.02	1.50	-1.50	0.00
5,500.00	5.74	245.238	5,082.27	-704.07	-1,526.42	-703.75	1.50	-1.50	0.00
5,600.00	4.24	245.238	5,181.89	-707.72	-1,534.32	-707.39	1.50	-1.50	0.00
5,700.00	2.74	245.238	5,281.70	-710.26	-1,539.84	-709.94	1.50	-1.50	0.00
5,800.00	1.24	245.238	5,381.63	-711.72	-1,542.99	-711.39	1.50	-1.50	0.00
5,882.51	0.00	0.000	5,464.14	-712.09	-1,543.80	-711.77	1.50	-1.50	0.00
Start 1336.90 hold at 5882.51 MD									
5,900.00	0.00	0.000	5,481.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,000.00	0.00	0.000	5,581.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,100.00	0.00	0.000	5,681.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,200.00	0.00	0.000	5,781.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,300.00	0.00	0.000	5,881.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,400.00	0.00	0.000	5,981.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,500.00	0.00	0.000	6,081.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,600.00	0.00	0.000	6,181.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,700.00	0.00	0.000	6,281.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,800.00	0.00	0.000	6,381.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
6,900.00	0.00	0.000	6,481.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
7,000.00	0.00	0.000	6,581.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
7,100.00	0.00	0.000	6,681.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
7,200.00	0.00	0.000	6,781.63	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
7,219.41	0.00	0.000	6,801.04	-712.09	-1,543.80	-711.77	0.00	0.00	0.00
Start DLS 10.00 TFO 359.99									
7,300.00	8.06	359.988	6,881.36	-706.43	-1,543.80	-706.11	10.00	10.00	0.00
7,400.00	18.06	359.988	6,978.65	-683.87	-1,543.81	-683.54	10.00	10.00	0.00
7,500.00	28.06	359.988	7,070.55	-644.75	-1,543.81	-644.42	10.00	10.00	0.00
7,600.00	38.06	359.988	7,154.25	-590.27	-1,543.83	-589.94	10.00	10.00	0.00
7,700.00	48.06	359.988	7,227.22	-522.08	-1,543.84	-521.76	10.00	10.00	0.00
7,800.00	58.06	359.988	7,287.25	-442.25	-1,543.86	-441.93	10.00	10.00	0.00
7,900.00	68.06	359.988	7,332.50	-353.22	-1,543.88	-352.90	10.00	10.00	0.00
8,000.00	78.06	359.988	7,361.60	-257.68	-1,543.90	-257.36	10.00	10.00	0.00
8,100.00	88.06	359.988	7,373.67	-158.54	-1,543.92	-158.22	10.00	10.00	0.00
8,119.41	90.00	359.988	7,374.00	-139.13	-1,543.92	-138.81	10.00	10.00	0.00
Start 10022.70 hold at 8119.41 MD									
8,200.00	90.00	359.988	7,374.00	-58.54	-1,543.94	-58.22	0.00	0.00	0.00
8,300.00	90.00	359.988	7,374.00	41.46	-1,543.96	41.78	0.00	0.00	0.00
8,400.00	90.00	359.988	7,374.00	141.46	-1,543.98	141.78	0.00	0.00	0.00
8,500.00	90.00	359.988	7,374.00	241.46	-1,544.00	241.78	0.00	0.00	0.00
8,600.00	90.00	359.988	7,374.00	341.46	-1,544.02	341.78	0.00	0.00	0.00
8,700.00	90.00	359.988	7,374.00	441.46	-1,544.05	441.78	0.00	0.00	0.00
8,800.00	90.00	359.988	7,374.00	541.46	-1,544.07	541.78	0.00	0.00	0.00
8,900.00	90.00	359.988	7,374.00	641.46	-1,544.09	641.78	0.00	0.00	0.00
9,000.00	90.00	359.988	7,374.00	741.46	-1,544.11	741.78	0.00	0.00	0.00
9,100.00	90.00	359.988	7,374.00	841.46	-1,544.13	841.78	0.00	0.00	0.00
9,200.00	90.00	359.988	7,374.00	941.46	-1,544.15	941.78	0.00	0.00	0.00
9,300.00	90.00	359.988	7,374.00	1,041.46	-1,544.17	1,041.78	0.00	0.00	0.00
9,400.00	90.00	359.988	7,374.00	1,141.46	-1,544.19	1,141.78	0.00	0.00	0.00

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Company:	HighPoint Resources	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Site:	Critter Creek 16 SE Pad	North Reference:	True
Well:	Critter Creek 16-6005BW	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

Planned 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)	
9,500.00	90.00	359.988	7,374.00	1,241.46	-1,544.22	1,241.78	0.00	0.00	0.00	
9,600.00	90.00	359.988	7,374.00	1,341.46	-1,544.24	1,341.78	0.00	0.00	0.00	
9,700.00	90.00	359.988	7,374.00	1,441.46	-1,544.26	1,441.78	0.00	0.00	0.00	
9,800.00	90.00	359.988	7,374.00	1,541.46	-1,544.28	1,541.78	0.00	0.00	0.00	
9,900.00	90.00	359.988	7,374.00	1,641.46	-1,544.30	1,641.78	0.00	0.00	0.00	
10,000.00	90.00	359.988	7,374.00	1,741.46	-1,544.32	1,741.78	0.00	0.00	0.00	
10,100.00	90.00	359.988	7,374.00	1,841.46	-1,544.34	1,841.78	0.00	0.00	0.00	
10,200.00	90.00	359.988	7,374.00	1,941.46	-1,544.36	1,941.78	0.00	0.00	0.00	
10,300.00	90.00	359.988	7,374.00	2,041.46	-1,544.39	2,041.78	0.00	0.00	0.00	
10,400.00	90.00	359.988	7,374.00	2,141.46	-1,544.41	2,141.78	0.00	0.00	0.00	
10,500.00	90.00	359.988	7,374.00	2,241.46	-1,544.43	2,241.78	0.00	0.00	0.00	
10,600.00	90.00	359.988	7,374.00	2,341.46	-1,544.45	2,341.78	0.00	0.00	0.00	
10,700.00	90.00	359.988	7,374.00	2,441.46	-1,544.47	2,441.78	0.00	0.00	0.00	
10,800.00	90.00	359.988	7,374.00	2,541.46	-1,544.49	2,541.78	0.00	0.00	0.00	
10,900.00	90.00	359.988	7,374.00	2,641.46	-1,544.51	2,641.78	0.00	0.00	0.00	
11,000.00	90.00	359.988	7,374.00	2,741.46	-1,544.53	2,741.78	0.00	0.00	0.00	
11,100.00	90.00	359.988	7,374.00	2,841.46	-1,544.56	2,841.78	0.00	0.00	0.00	
11,200.00	90.00	359.988	7,374.00	2,941.46	-1,544.58	2,941.78	0.00	0.00	0.00	
11,300.00	90.00	359.988	7,374.00	3,041.46	-1,544.60	3,041.78	0.00	0.00	0.00	
11,400.00	90.00	359.988	7,374.00	3,141.46	-1,544.62	3,141.78	0.00	0.00	0.00	
11,500.00	90.00	359.988	7,374.00	3,241.46	-1,544.64	3,241.78	0.00	0.00	0.00	
11,600.00	90.00	359.988	7,374.00	3,341.46	-1,544.66	3,341.78	0.00	0.00	0.00	
11,700.00	90.00	359.988	7,374.00	3,441.46	-1,544.68	3,441.78	0.00	0.00	0.00	
11,800.00	90.00	359.988	7,374.00	3,541.46	-1,544.70	3,541.78	0.00	0.00	0.00	
11,900.00	90.00	359.988	7,374.00	3,641.46	-1,544.73	3,641.78	0.00	0.00	0.00	
12,000.00	90.00	359.988	7,374.00	3,741.46	-1,544.75	3,741.78	0.00	0.00	0.00	
12,100.00	90.00	359.988	7,374.00	3,841.46	-1,544.77	3,841.78	0.00	0.00	0.00	
12,200.00	90.00	359.988	7,374.00	3,941.46	-1,544.79	3,941.78	0.00	0.00	0.00	
12,300.00	90.00	359.988	7,374.00	4,041.46	-1,544.81	4,041.78	0.00	0.00	0.00	
12,400.00	90.00	359.988	7,374.00	4,141.46	-1,544.83	4,141.78	0.00	0.00	0.00	
12,500.00	90.00	359.988	7,374.00	4,241.46	-1,544.85	4,241.78	0.00	0.00	0.00	
12,600.00	90.00	359.988	7,374.00	4,341.46	-1,544.87	4,341.78	0.00	0.00	0.00	
12,700.00	90.00	359.988	7,374.00	4,441.46	-1,544.90	4,441.78	0.00	0.00	0.00	
12,800.00	90.00	359.988	7,374.00	4,541.46	-1,544.92	4,541.78	0.00	0.00	0.00	
12,900.00	90.00	359.988	7,374.00	4,641.46	-1,544.94	4,641.78	0.00	0.00	0.00	
13,000.00	90.00	359.988	7,374.00	4,741.46	-1,544.96	4,741.78	0.00	0.00	0.00	
13,100.00	90.00	359.988	7,374.00	4,841.46	-1,544.98	4,841.78	0.00	0.00	0.00	
13,200.00	90.00	359.988	7,374.00	4,941.46	-1,545.00	4,941.78	0.00	0.00	0.00	
13,300.00	90.00	359.988	7,374.00	5,041.46	-1,545.02	5,041.78	0.00	0.00	0.00	
13,400.00	90.00	359.988	7,374.00	5,141.46	-1,545.04	5,141.78	0.00	0.00	0.00	
13,500.00	90.00	359.988	7,374.00	5,241.46	-1,545.07	5,241.78	0.00	0.00	0.00	
13,600.00	90.00	359.988	7,374.00	5,341.46	-1,545.09	5,341.78	0.00	0.00	0.00	
13,700.00	90.00	359.988	7,374.00	5,441.46	-1,545.11	5,441.78	0.00	0.00	0.00	
13,800.00	90.00	359.988	7,374.00	5,541.46	-1,545.13	5,541.78	0.00	0.00	0.00	
13,900.00	90.00	359.988	7,374.00	5,641.46	-1,545.15	5,641.78	0.00	0.00	0.00	
14,000.00	90.00	359.988	7,374.00	5,741.46	-1,545.17	5,741.78	0.00	0.00	0.00	
14,100.00	90.00	359.988	7,374.00	5,841.46	-1,545.19	5,841.78	0.00	0.00	0.00	
14,200.00	90.00	359.988	7,374.00	5,941.46	-1,545.21	5,941.78	0.00	0.00	0.00	
14,300.00	90.00	359.988	7,374.00	6,041.46	-1,545.24	6,041.78	0.00	0.00	0.00	
14,400.00	90.00	359.988	7,374.00	6,141.46	-1,545.26	6,141.78	0.00	0.00	0.00	
14,500.00	90.00	359.988	7,374.00	6,241.46	-1,545.28	6,241.78	0.00	0.00	0.00	
14,600.00	90.00	359.988	7,374.00	6,341.46	-1,545.30	6,341.78	0.00	0.00	0.00	
14,700.00	90.00	359.988	7,374.00	6,441.46	-1,545.32	6,441.78	0.00	0.00	0.00	
14,800.00	90.00	359.988	7,374.00	6,541.46	-1,545.34	6,541.78	0.00	0.00	0.00	

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Company:	HighPoint Resources	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Site:	Critter Creek 16 SE Pad	North Reference:	True
Well:	Critter Creek 16-6005BW	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

Planned 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)
14,900.00	90.00	359.988	7,374.00	6,641.46	-1,545.36	6,641.78	0.00	0.00	0.00
15,000.00	90.00	359.988	7,374.00	6,741.46	-1,545.39	6,741.78	0.00	0.00	0.00
15,100.00	90.00	359.988	7,374.00	6,841.46	-1,545.41	6,841.78	0.00	0.00	0.00
15,200.00	90.00	359.988	7,374.00	6,941.46	-1,545.43	6,941.78	0.00	0.00	0.00
15,300.00	90.00	359.988	7,374.00	7,041.46	-1,545.45	7,041.78	0.00	0.00	0.00
15,400.00	90.00	359.988	7,374.00	7,141.46	-1,545.47	7,141.78	0.00	0.00	0.00
15,500.00	90.00	359.988	7,374.00	7,241.46	-1,545.49	7,241.78	0.00	0.00	0.00
15,600.00	90.00	359.988	7,374.00	7,341.46	-1,545.51	7,341.78	0.00	0.00	0.00
15,700.00	90.00	359.988	7,374.00	7,441.46	-1,545.53	7,441.78	0.00	0.00	0.00
15,800.00	90.00	359.988	7,374.00	7,541.46	-1,545.56	7,541.78	0.00	0.00	0.00
15,900.00	90.00	359.988	7,374.00	7,641.46	-1,545.58	7,641.78	0.00	0.00	0.00
16,000.00	90.00	359.988	7,374.00	7,741.46	-1,545.60	7,741.78	0.00	0.00	0.00
16,100.00	90.00	359.988	7,374.00	7,841.46	-1,545.62	7,841.78	0.00	0.00	0.00
16,200.00	90.00	359.988	7,374.00	7,941.46	-1,545.64	7,941.78	0.00	0.00	0.00
16,300.00	90.00	359.988	7,374.00	8,041.46	-1,545.66	8,041.78	0.00	0.00	0.00
16,400.00	90.00	359.988	7,374.00	8,141.46	-1,545.68	8,141.78	0.00	0.00	0.00
16,500.00	90.00	359.988	7,374.00	8,241.46	-1,545.70	8,241.78	0.00	0.00	0.00
16,600.00	90.00	359.988	7,374.00	8,341.46	-1,545.73	8,341.78	0.00	0.00	0.00
16,700.00	90.00	359.988	7,374.00	8,441.46	-1,545.75	8,441.78	0.00	0.00	0.00
16,800.00	90.00	359.988	7,374.00	8,541.46	-1,545.77	8,541.78	0.00	0.00	0.00
16,900.00	90.00	359.988	7,374.00	8,641.46	-1,545.79	8,641.78	0.00	0.00	0.00
17,000.00	90.00	359.988	7,374.00	8,741.46	-1,545.81	8,741.78	0.00	0.00	0.00
17,100.00	90.00	359.988	7,374.00	8,841.46	-1,545.83	8,841.78	0.00	0.00	0.00
17,200.00	90.00	359.988	7,374.00	8,941.46	-1,545.85	8,941.78	0.00	0.00	0.00
17,300.00	90.00	359.988	7,374.00	9,041.46	-1,545.87	9,041.78	0.00	0.00	0.00
17,400.00	90.00	359.988	7,374.00	9,141.46	-1,545.90	9,141.78	0.00	0.00	0.00
17,500.00	90.00	359.988	7,374.00	9,241.46	-1,545.92	9,241.78	0.00	0.00	0.00
17,600.00	90.00	359.988	7,374.00	9,341.46	-1,545.94	9,341.78	0.00	0.00	0.00
17,700.00	90.00	359.988	7,374.00	9,441.46	-1,545.96	9,441.78	0.00	0.00	0.00
17,800.00	90.00	359.988	7,374.00	9,541.46	-1,545.98	9,541.78	0.00	0.00	0.00
17,900.00	90.00	359.988	7,374.00	9,641.46	-1,546.00	9,641.78	0.00	0.00	0.00
18,000.00	90.00	359.988	7,374.00	9,741.46	-1,546.02	9,741.78	0.00	0.00	0.00
18,100.00	90.00	359.988	7,374.00	9,841.46	-1,546.04	9,841.78	0.00	0.00	0.00
18,142.11	90.00	359.988	7,374.00	9,883.56	-1,546.05	9,883.89	0.00	0.00	0.00
TD at 18142.11									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CC 16-6005BW PBHL - hit/miss target - Shape - Point	0.00	0.000	7,374.00	9,883.57	-1,546.05	1,588,296.60	3,293,409.87	40° 56' 36.294 N	104° 26' 16.670 W
CC 16-6005BW LP - plan hits target center - Point	0.00	0.000	7,374.00	-139.12	-1,543.92	1,578,274.68	3,293,532.67	40° 54' 57.265 N	104° 26' 16.634 W

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Critter Creek 16-6005BW
Company:	HighPoint Resources	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft
Site:	Critter Creek 16 SE Pad	North Reference:	True
Well:	Critter Creek 16-6005BW	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	0.00	0.00	Start Build 2.00
2,963.88	2,813.64	-271.07	-587.69	Start 300.13 hold at 2963.88 MD
3,264.01	3,045.96	-350.66	-760.22	Start Drop -1.50
5,882.51	5,464.14	-712.09	-1,543.80	Start 1336.90 hold at 5882.51 MD
7,219.41	6,801.04	-712.09	-1,543.80	Start DLS 10.00 TFO 359.99
8,119.41	7,374.00	-139.13	-1,543.92	Start 10022.70 hold at 8119.41 MD
18,142.11	7,374.00	9,883.56	-1,546.05	TD at 18142.11