



HighPoint Resources
Project: Weld County, CO (NAD83)
Site: Sec 34-T12N-R63W
Well: Fox Creek 34-0164B
Wellbore: Wellbore #1
Design: Wellbore #1 (Fox Creek 34-0164B/Wellbore #1)
Savanna 802

PROJECT DETAILS: Weld County, CO (NAD83)
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

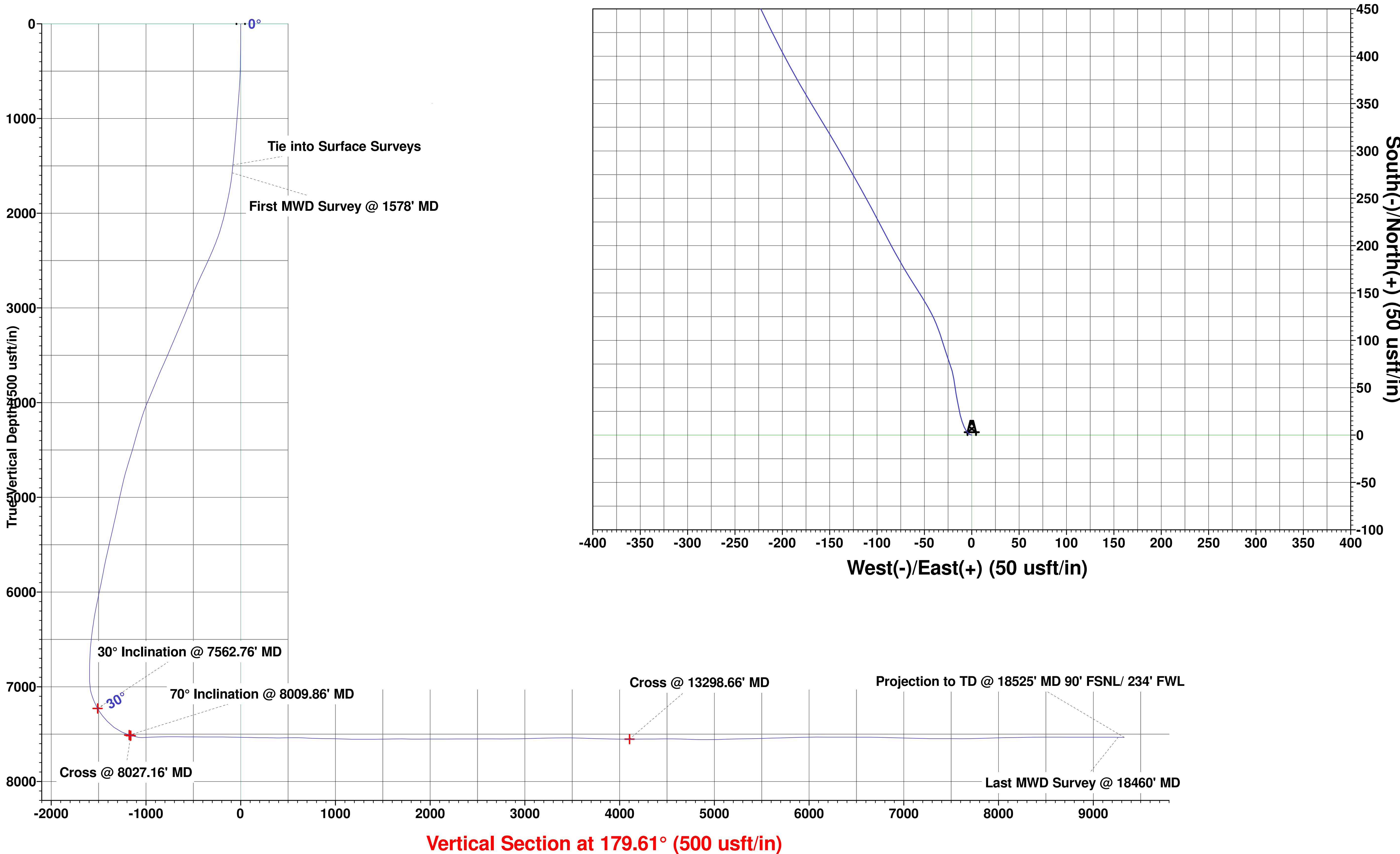
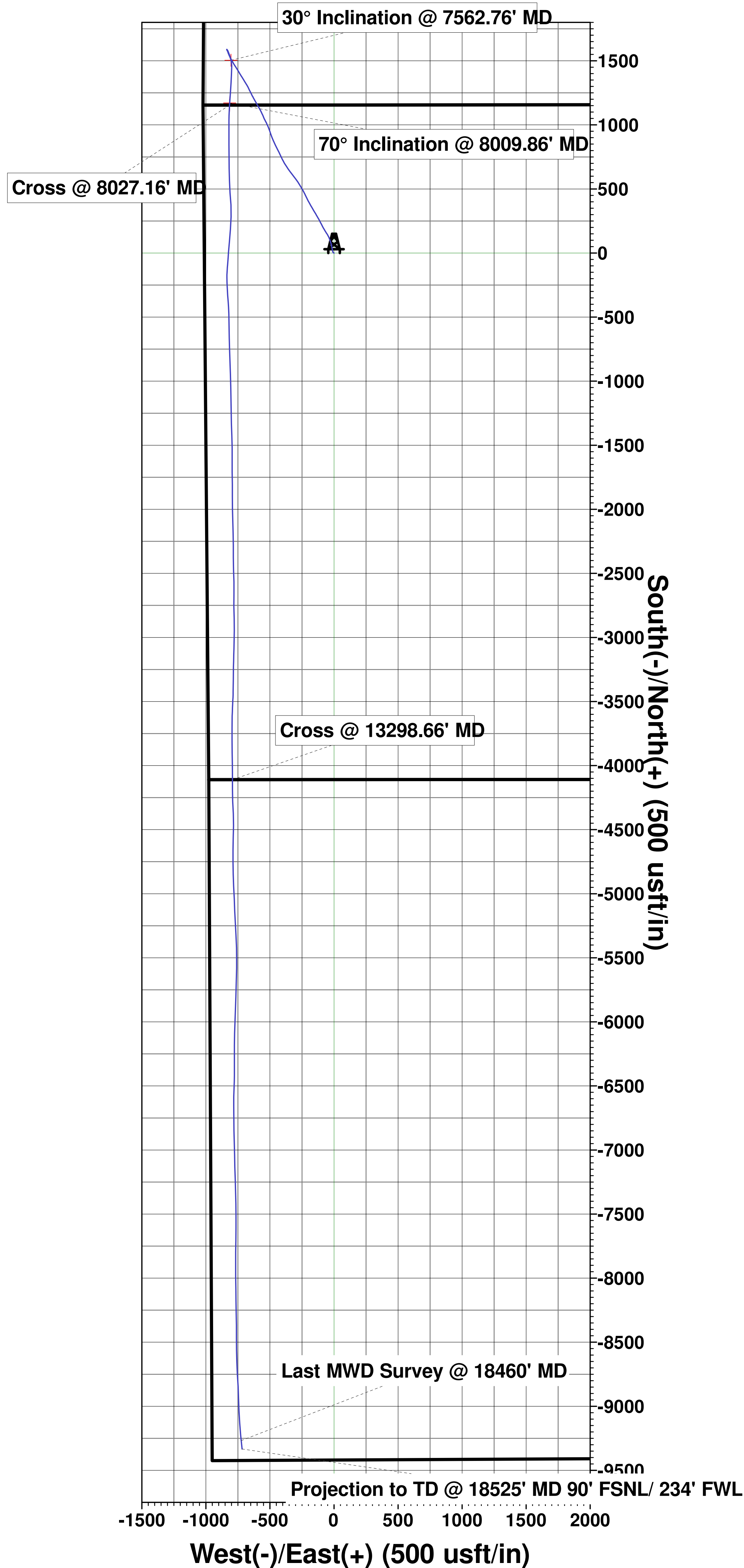
WELL DETAILS: Fox Creek 34-0164B

Ground Elevation:: 5450.80
RKB Elevation: KB @ 5470.80usft (Savanna 802)
Rig Name: Savanna 802

Northing	Easting	Latitude	Longitude
1598009.40	3296867.41	40.969956	-104.425024

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1493.00	6.25	341.00	1489.64	81.39	-25.34	-81.56	87.47	Tie into Surface Surveys
1578.00	6.36	342.47	1574.12	90.25	-28.26	-90.44	96.80	First MWD Survey @ 1578' MD
7562.76	29.98	166.63	7229.43	1504.83	-804.31	-1510.27	1899.33	30° Inclination @ 7562.76' MD
8009.86	70.00	183.89	7510.38	1171.30	-814.34	-1176.81	2233.75	70° Inclination @ 8009.86' MD
8027.16	71.79	183.65	7516.08	1155.00	-815.42	-1160.53	2250.26	Cross @ 8027.16' MD
13298.66	90.25	180.21	7552.98	-4110.00	-792.68	4104.51	7518.18	Cross @ 13298.66' MD
18460.00	89.56	173.88	7533.55	-9267.94	-724.23	9262.79	12678.66	Last MWD Survey @ 18460' MD
18525.00	89.56	173.88	7534.05	-9332.56	-717.30	9327.46	12743.66	Projection to TD @ 18525' MD 90' FSNL/ 234' FWL



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Mazimuths to True North

Magnetic North: 7.83°

Magnetic Field

Strength: 52456.4nT

Dip Angle: 67.30°

Date: 9/19/2019

Model: IGRF2015



HighPoint Resources

Weld County, CO (NAD83)

Sec 34-T12N-R63W

Fox Creek 34-0164B

Wellbore #1

Design: Wellbore #1

Standard Survey Report

16 November, 2019

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0164B
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 5470.80usft (Savanna 802)
Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
Well:	Fox Creek 34-0164B	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Project	Weld County, CO (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec 34-T12N-R63W						
Site Position:		Northing:	1,599,151.60	usft	Latitude:	40.973125		
From:	Lat/Long	Easting:	3,295,830.61	usft	Longitude:	-104.428728		
Position Uncertainty:	0.00	usft	Slot Radius:	13-3/16	"	Grid Convergence:	0.69	°

Well	Fox Creek 34-0164B					
Well Position	+N/-S	0.00 usft	Northing:	1,598,009.40 usft	Latitude:	40.969956
	+E/-W	0.00 usft	Easting:	3,296,867.41 usft	Longitude:	-104.425024
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,450.80 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/19/2019	7.83	67.30	52,456.37772995

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)	Direction (°)	
	0.00	0.00	0.00	179.61	

Survey Program	Date	11/16/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
209.00	1,493.00	Surface Surveys (Wellbore #1)	MWD	MWD - Standard	
1,578.00	18,525.00	Atlas MWD Surveys (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
209.00	0.91	282.34	208.99	0.35	-1.62	-0.37	0.44	0.44	0.00	
304.00	1.14	321.77	303.98	1.26	-2.94	-1.28	0.76	0.24	41.51	
399.00	1.11	310.06	398.96	2.59	-4.23	-2.62	0.24	-0.03	-12.33	
494.00	2.29	326.29	493.92	4.76	-5.99	-4.80	1.33	1.24	17.08	
589.00	3.16	336.22	588.81	8.74	-8.10	-8.79	1.04	0.92	10.45	
685.00	3.86	341.54	684.63	14.23	-10.19	-14.29	0.80	0.73	5.54	
781.00	4.58	346.06	780.37	21.01	-12.14	-21.09	0.83	0.75	4.71	
876.00	4.68	350.52	875.06	28.51	-13.69	-28.61	0.39	0.11	4.69	
971.00	4.56	347.41	969.75	36.02	-15.15	-36.12	0.29	-0.13	-3.27	

Survey Report

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Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 5470.80usft (Savanna 802)
Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
Well:	Fox Creek 34-0164B	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,066.00	4.75	351.03	1,064.44	43.59	-16.59	-43.71	0.37	0.20	3.81
1,161.00	4.73	351.77	1,159.11	51.36	-17.76	-51.48	0.07	-0.02	0.78
1,255.00	4.84	351.59	1,252.78	59.11	-18.89	-59.24	0.12	0.12	-0.19
1,351.00	5.38	344.43	1,348.40	67.46	-20.69	-67.60	0.87	0.56	-7.46
1,446.00	6.21	340.10	1,442.92	76.58	-23.64	-76.74	0.99	0.87	-4.56
1,493.00	6.25	341.00	1,489.64	81.39	-25.34	-81.56	0.22	0.09	1.91
Tie into Surface Surveys									
1,578.00	6.36	342.47	1,574.12	90.25	-28.26	-90.44	0.23	0.13	1.73
First MWD Survey @ 1578' MD									
1,673.00	8.53	342.61	1,668.32	101.99	-31.95	-102.21	2.28	2.28	0.15
1,768.00	11.54	338.14	1,761.86	117.54	-37.60	-117.79	3.27	3.17	-4.71
1,863.00	13.49	329.90	1,854.60	135.95	-46.70	-136.26	2.78	2.05	-8.67
1,958.00	14.44	326.77	1,946.79	155.44	-58.74	-155.84	1.28	1.00	-3.29
2,053.00	15.90	329.69	2,038.48	176.59	-71.80	-177.07	1.73	1.54	3.07
2,149.00	18.15	331.70	2,130.27	201.11	-85.53	-201.69	2.42	2.34	2.09
2,244.00	20.81	332.49	2,219.82	229.11	-100.34	-229.79	2.81	2.80	0.83
2,339.00	23.57	330.94	2,307.78	260.69	-117.37	-261.48	2.97	2.91	-1.63
2,433.00	26.01	330.38	2,393.11	295.04	-136.68	-295.96	2.61	2.60	-0.60
2,527.00	27.83	328.29	2,476.92	331.62	-158.41	-332.69	2.18	1.94	-2.22
2,622.00	28.33	330.24	2,560.74	370.06	-181.25	-371.28	1.10	0.53	2.05
2,717.00	27.79	332.63	2,644.58	409.29	-202.62	-410.66	1.31	-0.57	2.52
2,811.00	27.01	334.80	2,728.04	448.07	-221.79	-449.57	1.35	-0.83	2.31
2,906.00	24.57	331.44	2,813.57	484.94	-240.42	-486.57	2.99	-2.57	-3.54
3,001.00	24.69	329.16	2,899.93	519.33	-260.03	-521.09	1.01	0.13	-2.40
3,096.00	26.02	325.78	2,985.78	553.60	-281.92	-555.50	2.07	1.40	-3.56
3,191.00	27.25	323.22	3,070.70	588.25	-306.67	-590.32	1.77	1.29	-2.69
3,286.00	27.80	321.85	3,154.95	623.09	-333.37	-625.35	0.88	0.58	-1.44
3,381.00	27.15	325.36	3,239.24	658.35	-359.38	-660.78	1.84	-0.68	3.69
3,475.00	26.67	328.92	3,323.07	694.06	-382.46	-696.65	1.79	-0.51	3.79
3,570.00	25.12	333.30	3,408.53	730.34	-402.53	-733.07	2.59	-1.63	4.61
3,665.00	25.20	334.99	3,494.52	766.69	-420.14	-769.53	0.76	0.08	1.78
3,760.00	26.85	333.53	3,579.89	804.22	-438.26	-807.19	1.86	1.74	-1.54
3,855.00	26.01	333.55	3,664.96	842.08	-457.10	-845.17	0.88	-0.88	0.02
3,950.00	24.40	336.20	3,750.91	878.68	-474.30	-881.89	2.07	-1.69	2.79
4,045.00	23.51	340.21	3,837.73	914.47	-488.63	-917.77	1.95	-0.94	4.22
4,139.00	24.28	342.02	3,923.68	950.49	-500.95	-953.88	1.13	0.82	1.93
4,234.00	24.09	337.31	4,010.35	986.96	-514.46	-990.44	2.04	-0.20	-4.96
4,329.00	21.47	331.48	4,097.94	1,020.14	-530.24	-1,023.72	3.64	-2.76	-6.14
4,423.00	18.39	335.95	4,186.30	1,048.80	-544.50	-1,052.48	3.65	-3.28	4.76
4,518.00	17.95	337.17	4,276.57	1,075.98	-556.29	-1,079.74	0.61	-0.46	1.28
4,613.00	17.38	332.86	4,367.09	1,102.10	-568.44	-1,105.94	1.50	-0.60	-4.54
4,708.00	17.50	330.94	4,457.73	1,127.21	-581.85	-1,131.14	0.62	0.13	-2.02
4,803.00	19.34	330.50	4,547.85	1,153.39	-596.54	-1,157.42	1.94	1.94	-0.46

Survey Report

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Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
Well:	Fox Creek 34-0164B	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,898.00	19.72	330.63	4,637.39	1,181.05	-612.14	-1,185.19	0.40	0.40	0.14
4,993.00	17.90	330.69	4,727.31	1,207.75	-627.15	-1,211.99	1.92	-1.92	0.06
5,088.00	14.88	332.56	4,818.44	1,231.31	-639.92	-1,235.64	3.23	-3.18	1.97
5,182.00	14.21	334.40	4,909.43	1,252.43	-650.47	-1,256.83	0.87	-0.71	1.96
5,277.00	13.81	333.57	5,001.60	1,273.10	-660.56	-1,277.56	0.47	-0.42	-0.87
5,371.00	12.99	333.23	5,093.04	1,292.57	-670.31	-1,297.11	0.88	-0.87	-0.36
5,466.00	14.47	329.23	5,185.33	1,312.31	-681.19	-1,316.91	1.85	1.56	-4.21
5,560.00	14.54	328.65	5,276.33	1,332.47	-693.34	-1,337.16	0.17	0.07	-0.62
5,654.00	15.14	328.26	5,367.19	1,352.99	-705.93	-1,357.77	0.65	0.64	-0.41
5,749.00	15.50	326.91	5,458.82	1,374.18	-719.39	-1,379.04	0.53	0.38	-1.42
5,845.00	14.65	330.26	5,551.52	1,395.47	-732.42	-1,400.42	1.27	-0.89	3.49
5,940.00	14.15	329.44	5,643.53	1,415.90	-744.28	-1,420.93	0.57	-0.53	-0.86
6,035.00	12.88	328.62	5,735.90	1,434.94	-755.70	-1,440.05	1.35	-1.34	-0.86
6,130.00	12.88	325.69	5,828.51	1,452.72	-767.18	-1,457.91	0.69	0.00	-3.08
6,224.00	13.59	327.32	5,920.01	1,470.67	-779.05	-1,475.94	0.85	0.76	1.73
6,318.00	13.57	331.11	6,011.39	1,489.62	-790.34	-1,494.97	0.95	-0.02	4.03
6,413.00	13.31	331.47	6,103.78	1,508.99	-800.95	-1,514.40	0.29	-0.27	0.38
6,507.00	11.80	332.14	6,195.53	1,526.99	-810.61	-1,532.47	1.61	-1.61	0.71
6,601.00	9.71	336.03	6,287.88	1,542.73	-818.32	-1,548.27	2.35	-2.22	4.14
6,695.00	8.49	338.80	6,380.70	1,556.45	-824.05	-1,562.02	1.38	-1.30	2.95
6,789.00	7.54	337.68	6,473.78	1,568.62	-828.90	-1,574.23	1.02	-1.01	-1.19
6,883.00	5.39	337.29	6,567.17	1,578.40	-832.95	-1,584.04	2.29	-2.29	-0.41
6,978.00	3.09	333.90	6,661.91	1,584.82	-835.80	-1,590.47	2.43	-2.42	-3.57
7,072.00	1.73	338.49	6,755.82	1,588.41	-837.43	-1,594.08	1.46	-1.45	4.88
7,167.00	0.52	82.52	6,850.81	1,589.80	-837.53	-1,595.47	2.02	-1.27	109.51
7,261.00	2.07	112.32	6,944.78	1,589.21	-835.54	-1,594.87	1.74	1.65	31.70
7,356.00	12.54	153.87	7,038.91	1,579.27	-829.39	-1,584.88	11.66	11.02	43.74
7,387.00	17.52	156.30	7,068.84	1,571.97	-826.03	-1,577.56	16.19	16.06	7.84
7,450.00	22.10	160.48	7,128.10	1,552.11	-818.25	-1,557.64	7.61	7.27	6.63
7,481.00	24.54	163.46	7,156.57	1,540.44	-814.47	-1,545.95	8.74	7.87	9.61
7,543.00	28.03	163.83	7,212.15	1,514.10	-806.75	-1,519.55	5.64	5.63	0.60
7,562.76	29.98	166.63	7,229.43	1,504.83	-804.31	-1,510.27	12.03	9.88	14.16
30° Inclination @ 7562.76' MD									
7,575.00	31.22	168.20	7,239.96	1,498.75	-802.96	-1,504.18	12.03	10.10	12.84
7,606.00	34.46	172.11	7,266.01	1,482.19	-800.11	-1,487.61	12.49	10.45	12.61
7,638.00	36.34	177.67	7,292.10	1,463.75	-798.48	-1,469.15	11.65	5.88	17.38
7,658.00	38.05	181.34	7,308.03	1,451.66	-798.38	-1,457.06	14.00	8.55	18.35
7,732.00	43.09	182.48	7,364.22	1,403.58	-800.01	-1,408.99	6.88	6.81	1.54
7,827.00	52.61	183.35	7,427.90	1,333.32	-803.63	-1,338.76	10.04	10.02	0.92
7,921.00	65.08	183.92	7,476.44	1,253.20	-808.74	-1,258.68	13.28	13.27	0.61
8,009.86	70.00	183.89	7,510.38	1,171.30	-814.34	-1,176.81	5.54	5.54	-0.03
70° Inclination @ 8009.86' MD									
8,016.00	70.34	183.89	7,512.46	1,165.54	-814.73	-1,171.05	5.54	5.54	-0.03
8,027.16	71.79	183.65	7,516.08	1,155.00	-815.42	-1,160.53	13.14	12.98	-2.14

Survey Report

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Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
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Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

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Cross @ 8027.16' MD										
8,110.00	82.55	181.98	7,534.45	1,074.45	-819.36	-1,080.00	13.14	12.99	-2.02	
8,149.00	90.72	180.34	7,536.74	1,035.56	-820.14	-1,041.12	21.36	20.95	-4.21	
8,178.00	93.10	180.06	7,535.77	1,006.58	-820.25	-1,012.14	8.26	8.21	-0.97	
8,204.00	93.83	179.37	7,534.20	980.63	-820.12	-986.19	3.86	2.81	-2.65	
8,243.00	92.29	180.08	7,532.12	941.68	-819.93	-947.24	4.35	-3.95	1.82	
8,337.00	91.08	179.49	7,529.36	847.73	-819.58	-853.29	1.43	-1.29	-0.63	
8,431.00	90.96	180.24	7,527.68	753.74	-819.36	-759.30	0.81	-0.13	0.80	
8,525.00	88.47	178.41	7,528.15	659.76	-818.25	-665.32	3.29	-2.65	-1.95	
8,620.00	90.21	179.37	7,529.24	564.79	-816.41	-570.33	2.09	1.83	1.01	
8,714.00	89.76	175.07	7,529.27	470.92	-811.85	-476.44	4.60	-0.48	-4.57	
8,809.00	89.26	175.73	7,530.08	376.23	-804.23	-381.70	0.87	-0.53	0.69	
8,903.00	90.12	182.82	7,530.59	282.30	-803.04	-287.76	7.60	0.91	7.54	
8,998.00	89.45	184.15	7,530.95	187.48	-808.82	-192.98	1.57	-0.71	1.40	
9,092.00	89.03	185.12	7,532.19	93.80	-816.41	-99.35	1.12	-0.45	1.03	
9,187.00	89.23	184.41	7,533.64	-0.86	-824.30	-4.75	0.78	0.21	-0.75	
9,218.00	89.13	183.71	7,534.08	-31.78	-826.50	26.15	2.28	-0.32	-2.26	
9,282.00	88.53	184.90	7,535.39	-95.58	-831.30	89.92	2.08	-0.94	1.86	
9,314.00	88.47	182.97	7,536.22	-127.50	-833.50	121.82	6.03	-0.19	-6.03	
9,345.00	88.81	182.93	7,536.96	-158.45	-835.09	152.76	1.10	1.10	-0.13	
9,377.00	88.91	180.01	7,537.60	-190.43	-835.91	184.73	9.13	0.31	-9.13	
9,421.00	89.46	177.53	7,538.22	-234.41	-834.97	228.72	5.77	1.25	-5.64	
9,471.00	90.07	177.94	7,538.43	-284.37	-832.99	278.69	1.47	1.22	0.82	
9,516.00	88.59	174.85	7,538.95	-329.27	-830.16	323.61	7.61	-3.29	-6.87	
9,566.00	88.87	175.06	7,540.06	-379.06	-825.77	373.43	0.70	0.56	0.42	
9,606.00	91.28	178.00	7,540.01	-418.98	-823.35	413.37	9.50	6.03	7.35	
9,661.00	91.03	177.51	7,538.90	-473.93	-821.19	468.33	1.00	-0.45	-0.89	
9,756.00	90.39	179.87	7,537.72	-568.89	-819.02	563.30	2.57	-0.67	2.48	
9,851.00	87.25	178.34	7,539.68	-663.84	-817.54	658.26	3.68	-3.31	-1.61	
9,947.00	87.53	178.03	7,544.05	-759.70	-814.50	754.13	0.43	0.29	-0.32	
10,042.00	88.69	178.42	7,547.19	-854.60	-811.56	849.05	1.29	1.22	0.41	
10,138.00	89.90	178.23	7,548.37	-950.55	-808.75	945.02	1.28	1.26	-0.20	
10,233.00	88.06	178.94	7,550.06	-1,045.50	-806.41	1,039.98	2.08	-1.94	0.75	
10,328.00	87.89	178.32	7,553.41	-1,140.41	-804.14	1,134.91	0.68	-0.18	-0.65	
10,423.00	90.62	179.35	7,554.65	-1,235.37	-802.21	1,229.88	3.07	2.87	1.08	
10,518.00	89.90	178.63	7,554.22	-1,330.36	-800.53	1,324.88	1.07	-0.76	-0.76	
10,613.00	90.07	177.40	7,554.24	-1,425.30	-797.24	1,419.84	1.31	0.18	-1.29	
10,708.00	91.09	180.21	7,553.28	-1,520.26	-795.26	1,514.81	3.15	1.07	2.96	
10,803.00	91.58	179.58	7,551.07	-1,615.23	-795.09	1,609.78	0.84	0.52	-0.66	
10,898.00	89.04	179.75	7,550.55	-1,710.22	-794.53	1,704.78	2.68	-2.67	0.18	
10,993.00	88.38	179.41	7,552.69	-1,805.20	-793.84	1,799.75	0.78	-0.69	-0.36	
11,088.00	91.00	180.18	7,553.21	-1,900.18	-793.50	1,894.74	2.87	2.76	0.81	
11,183.00	89.88	179.06	7,552.48	-1,995.18	-792.87	1,989.73	1.67	-1.18	-1.18	

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0164B
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 5470.80usft (Savanna 802)
Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
Well:	Fox Creek 34-0164B	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,278.00	90.20	177.84	7,552.41	-2,090.14	-790.30	2,084.71	1.33	0.34	-1.28	
11,374.00	90.61	178.68	7,551.73	-2,186.09	-787.38	2,180.68	0.97	0.43	0.88	
11,469.00	90.04	179.94	7,551.19	-2,281.08	-786.24	2,275.68	1.46	-0.60	1.33	
11,564.00	89.84	179.82	7,551.29	-2,376.08	-786.04	2,370.68	0.25	-0.21	-0.13	
11,659.00	90.11	177.93	7,551.33	-2,471.06	-784.17	2,465.66	2.01	0.28	-1.99	
11,754.00	90.44	178.82	7,550.88	-2,566.02	-781.48	2,560.64	1.00	0.35	0.94	
11,849.00	89.43	181.20	7,550.99	-2,661.01	-781.50	2,655.63	2.72	-1.06	2.51	
11,944.00	90.17	179.05	7,551.32	-2,756.00	-781.70	2,750.62	2.39	0.78	-2.26	
12,039.00	90.40	177.99	7,550.85	-2,850.97	-779.25	2,845.60	1.14	0.24	-1.12	
12,135.00	91.62	180.69	7,549.15	-2,946.94	-778.14	2,941.57	3.09	1.27	2.81	
12,230.00	91.19	180.96	7,546.82	-3,041.90	-779.51	3,036.52	0.53	-0.45	0.28	
12,325.00	92.00	182.27	7,544.18	-3,136.82	-782.19	3,131.42	1.62	0.85	1.38	
12,420.00	90.82	181.21	7,541.84	-3,231.75	-785.07	3,226.33	1.67	-1.24	-1.12	
12,516.00	90.96	180.37	7,540.35	-3,327.72	-786.39	3,322.29	0.89	0.15	-0.88	
12,611.00	90.40	180.92	7,539.22	-3,422.71	-787.46	3,417.27	0.83	-0.59	0.58	
12,706.00	88.65	183.43	7,540.01	-3,517.63	-791.07	3,512.16	3.22	-1.84	2.64	
12,802.00	88.22	180.70	7,542.63	-3,613.52	-794.53	3,608.03	2.88	-0.45	-2.84	
12,897.00	87.61	180.48	7,546.09	-3,708.45	-795.50	3,702.95	0.68	-0.64	-0.23	
12,992.00	88.97	179.58	7,548.92	-3,803.41	-795.55	3,797.90	1.72	1.43	-0.95	
13,087.00	88.30	179.20	7,551.19	-3,898.37	-794.54	3,892.87	0.81	-0.71	-0.40	
13,182.00	89.59	178.97	7,552.94	-3,993.34	-793.03	3,987.85	1.38	1.36	-0.24	
13,278.00	90.25	180.47	7,553.07	-4,089.34	-792.56	4,083.85	1.71	0.69	1.56	
13,298.66	90.25	180.21	7,552.98	-4,110.00	-792.68	4,104.51	1.24	0.01	-1.24	
Cross @ 13298.66' MD										
13,372.00	90.26	179.30	7,552.65	-4,183.34	-792.37	4,177.84	1.24	0.01	-1.24	
13,467.00	90.20	178.66	7,552.27	-4,278.32	-790.68	4,272.84	0.68	-0.06	-0.67	
13,563.00	90.44	176.28	7,551.73	-4,374.22	-786.44	4,368.76	2.49	0.25	-2.48	
13,657.00	90.73	181.20	7,550.77	-4,468.16	-784.37	4,462.72	5.24	0.31	5.23	
13,753.00	89.20	181.34	7,550.83	-4,564.13	-786.50	4,558.67	1.60	-1.59	0.15	
13,848.00	88.82	180.73	7,552.47	-4,659.10	-788.22	4,653.63	0.76	-0.40	-0.64	
13,943.00	87.98	179.59	7,555.13	-4,754.06	-788.48	4,748.59	1.49	-0.88	-1.20	
14,038.00	89.15	178.22	7,557.51	-4,849.01	-786.67	4,843.55	1.90	1.23	-1.44	
14,133.00	89.92	177.44	7,558.28	-4,943.94	-783.07	4,938.50	1.15	0.81	-0.82	
14,229.00	92.08	177.66	7,556.60	-5,039.83	-778.97	5,034.41	2.26	2.25	0.23	
14,324.00	91.58	177.02	7,553.57	-5,134.68	-774.56	5,129.29	0.85	-0.53	-0.67	
14,419.00	91.26	177.43	7,551.21	-5,229.54	-769.96	5,224.18	0.55	-0.34	0.43	
14,515.00	90.21	176.20	7,549.98	-5,325.38	-764.63	5,320.05	1.68	-1.09	-1.28	
14,611.00	91.65	179.40	7,548.42	-5,421.28	-760.94	5,415.98	3.65	1.50	3.33	
14,706.00	92.09	179.53	7,545.32	-5,516.23	-760.06	5,510.93	0.48	0.46	0.14	
14,802.00	91.43	181.80	7,542.37	-5,612.17	-761.17	5,606.86	2.46	-0.69	2.36	
14,897.00	91.43	181.32	7,540.00	-5,707.10	-763.76	5,701.77	0.51	0.00	-0.51	
14,993.00	91.94	181.48	7,537.18	-5,803.03	-766.10	5,797.68	0.56	0.53	0.17	
15,087.00	90.99	182.27	7,534.78	-5,896.95	-769.18	5,891.58	1.31	-1.01	0.84	
15,183.00	91.66	182.13	7,532.56	-5,992.85	-772.86	5,987.45	0.71	0.70	-0.15	

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0164B
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 5470.80usft (Savanna 802)
Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
Well:	Fox Creek 34-0164B	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,278.00	90.00	181.28	7,531.18	-6,087.80	-775.69	6,082.38	1.96	-1.75	-0.89	
15,373.00	89.58	180.39	7,531.53	-6,182.78	-777.07	6,177.35	1.04	-0.44	-0.94	
15,469.00	89.73	179.93	7,532.11	-6,278.78	-777.34	6,273.35	0.50	0.16	-0.48	
15,563.00	90.53	180.18	7,531.89	-6,372.78	-777.43	6,367.34	0.89	0.85	0.27	
15,658.00	89.11	181.38	7,532.19	-6,467.77	-778.72	6,462.32	1.96	-1.49	1.26	
15,753.00	90.20	182.13	7,532.77	-6,562.72	-781.63	6,557.25	1.39	1.15	0.79	
15,848.00	89.21	179.29	7,533.25	-6,657.70	-782.81	6,652.22	3.17	-1.04	-2.99	
15,943.00	88.71	179.67	7,534.98	-6,752.68	-781.95	6,747.20	0.66	-0.53	0.40	
16,038.00	88.76	178.93	7,537.08	-6,847.65	-780.79	6,842.18	0.78	0.05	-0.78	
16,134.00	88.68	178.68	7,539.22	-6,943.60	-778.78	6,938.14	0.27	-0.08	-0.26	
16,229.00	88.15	178.41	7,541.85	-7,038.54	-776.37	7,033.09	0.63	-0.56	-0.28	
16,324.00	89.03	178.77	7,544.19	-7,133.48	-774.04	7,128.04	1.00	0.93	0.38	
16,419.00	88.23	178.05	7,546.46	-7,228.41	-771.40	7,222.99	1.13	-0.84	-0.76	
16,514.00	90.02	178.66	7,547.91	-7,323.36	-768.67	7,317.96	1.99	1.88	0.64	
16,609.00	89.87	178.56	7,548.00	-7,418.33	-766.37	7,412.94	0.19	-0.16	-0.11	
16,704.00	89.69	180.15	7,548.36	-7,513.32	-765.30	7,507.94	1.68	-0.19	1.67	
16,799.00	89.77	180.09	7,548.81	-7,608.32	-765.50	7,602.93	0.11	0.08	-0.06	
16,894.00	91.21	180.68	7,548.00	-7,703.31	-766.14	7,697.92	1.64	1.52	0.62	
16,989.00	91.63	180.41	7,545.64	-7,798.28	-767.04	7,792.88	0.53	0.44	-0.28	
17,085.00	91.97	180.01	7,542.63	-7,894.23	-767.39	7,888.82	0.55	0.35	-0.42	
17,179.00	91.97	179.67	7,539.40	-7,988.17	-767.13	7,982.77	0.36	0.00	-0.36	
17,274.00	90.33	179.19	7,537.49	-8,083.15	-766.19	8,077.74	1.80	-1.73	-0.51	
17,370.00	90.92	179.27	7,536.44	-8,179.13	-764.90	8,173.73	0.62	0.61	0.08	
17,465.00	91.33	178.49	7,534.58	-8,274.09	-763.04	8,268.71	0.93	0.43	-0.82	
17,560.00	90.64	180.04	7,532.95	-8,369.07	-761.82	8,363.69	1.79	-0.73	1.63	
17,656.00	90.26	179.91	7,532.19	-8,465.06	-761.78	8,459.68	0.42	-0.40	-0.14	
17,751.00	89.82	179.27	7,532.13	-8,560.06	-761.10	8,554.68	0.82	-0.46	-0.67	
17,846.00	89.78	178.17	7,532.46	-8,655.04	-758.98	8,649.67	1.16	-0.04	-1.16	
17,942.00	89.62	176.11	7,532.96	-8,750.91	-754.19	8,745.57	2.15	-0.17	-2.15	
18,037.00	90.17	177.59	7,533.13	-8,845.76	-748.97	8,840.46	1.66	0.58	1.56	
18,132.00	89.78	178.08	7,533.18	-8,940.69	-745.38	8,935.41	0.66	-0.41	0.52	
18,227.00	90.43	177.44	7,533.00	-9,035.62	-741.67	9,030.36	0.96	0.68	-0.67	
18,323.00	89.71	175.78	7,532.88	-9,131.45	-735.99	9,126.23	1.88	-0.75	-1.73	
18,419.00	89.78	174.94	7,533.31	-9,227.13	-728.22	9,221.96	0.88	0.07	-0.88	
18,460.00	89.56	173.88	7,533.55	-9,267.94	-724.23	9,262.79	2.64	-0.54	-2.59	
Last MWD Survey @ 18460' MD										
18,525.00	89.56	173.88	7,534.05	-9,332.56	-717.30	9,327.46	0.00	0.00	0.00	
Projection to TD @ 18525' MD 90' FSNL/ 234' FWL										

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0164B
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 5470.80usft (Savanna 802)
Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
Well:	Fox Creek 34-0164B	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
30° Inclination @ 7562.7 - actual wellpath misses target center by 0.01usft at 7562.76usft MD (7229.43 TVD, 1504.83 N, -804.31 E) - Point	0.00	0.00	7,229.43	1,504.83	-804.30	1,599,504.37	3,296,044.93	40.974086	-104.427937
70° Inclination @ 8009.8 - actual wellpath hits target center - Point	0.00	0.00	7,510.38	1,171.30	-814.34	1,599,170.74	3,296,038.94	40.973171	-104.427973
Cross @ 8027.16' MD - actual wellpath hits target center - Point	0.00	0.00	7,516.08	1,155.00	-815.42	1,599,154.43	3,296,038.05	40.973126	-104.427977
Cross @ 13298.66' MD - actual wellpath hits target center - Point	0.00	0.00	7,552.98	-4,110.00	-792.68	1,593,890.09	3,296,124.62	40.958676	-104.427894

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,493.00	1,489.64	81.39	-25.34	Tie into Surface Surveys
1,578.00	1,574.12	90.25	-28.26	First MWD Survey @ 1578' MD
7,562.76	7,229.43	1,504.83	-804.31	30° Inclination @ 7562.76' MD
8,009.86	7,510.38	1,171.30	-814.34	70° Inclination @ 8009.86' MD
8,027.16	7,516.08	1,155.00	-815.42	Cross @ 8027.16' MD
13,298.66	7,552.98	-4,110.00	-792.68	Cross @ 13298.66' MD
18,460.00	7,533.55	-9,267.94	-724.23	Last MWD Survey @ 18460' MD
18,525.00	7,534.05	-9,332.56	-717.30	Projection to TD @ 18525' MD 90' FSNL/ 234' FWL

Checked By: _____	Approved By: _____	Date: _____
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