



HighPoint Resources
Project: Weld County, CO (NAD83)
Site: Sec 34-T12N-R63W
Well: Fox Creek 34-0461B
Wellbore: Wellbore #1
Design: Wellbore #1 (Fox Creek 34-0461B/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

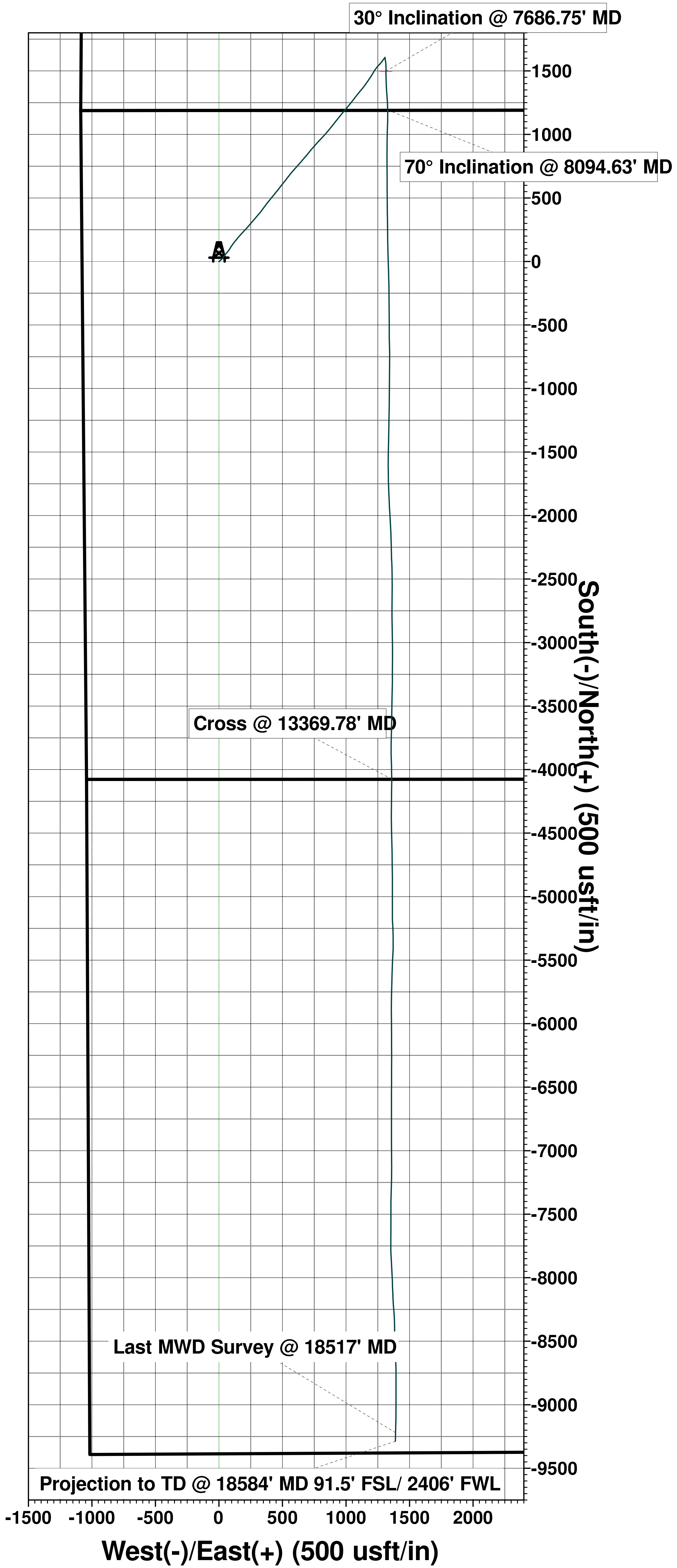
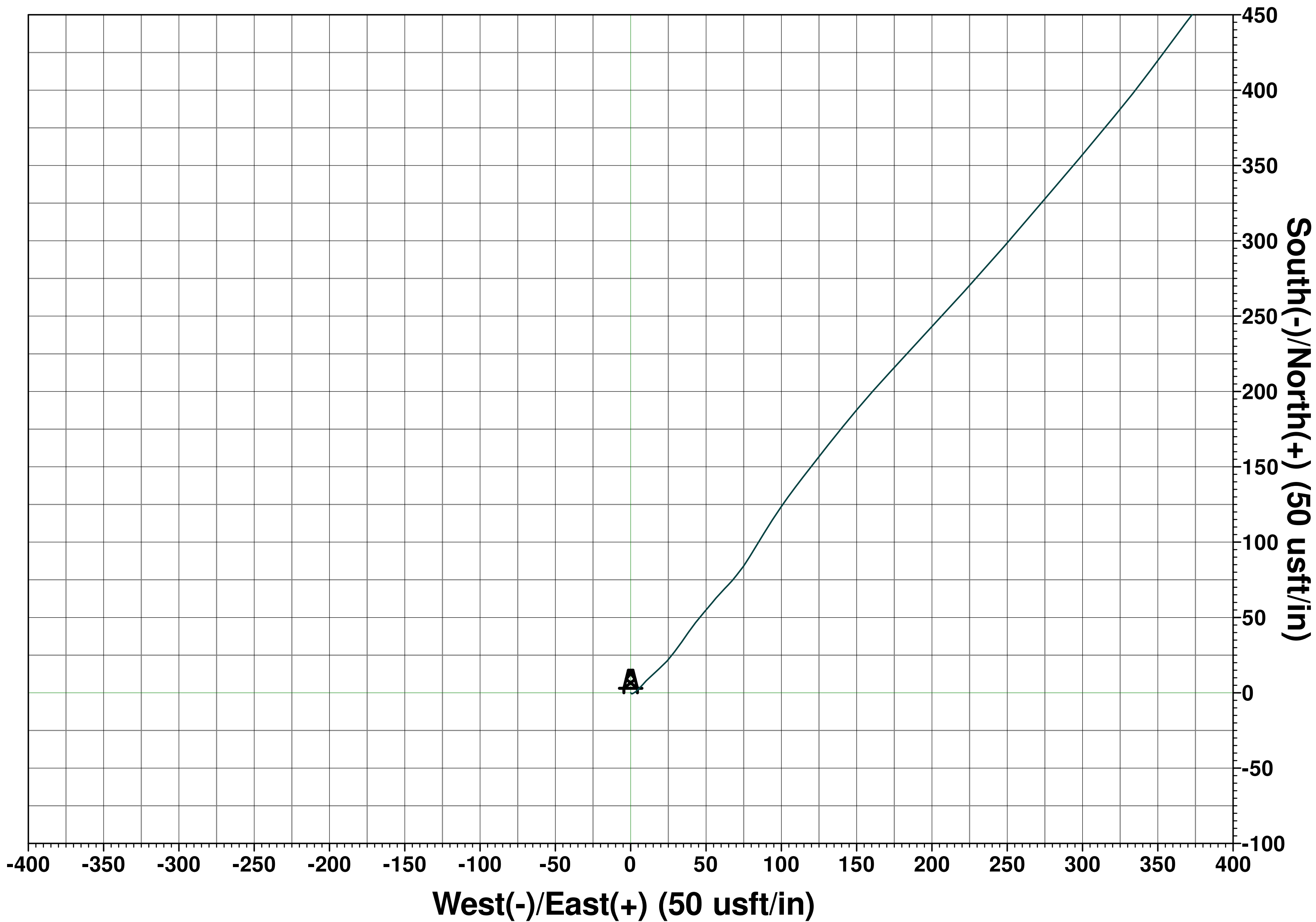
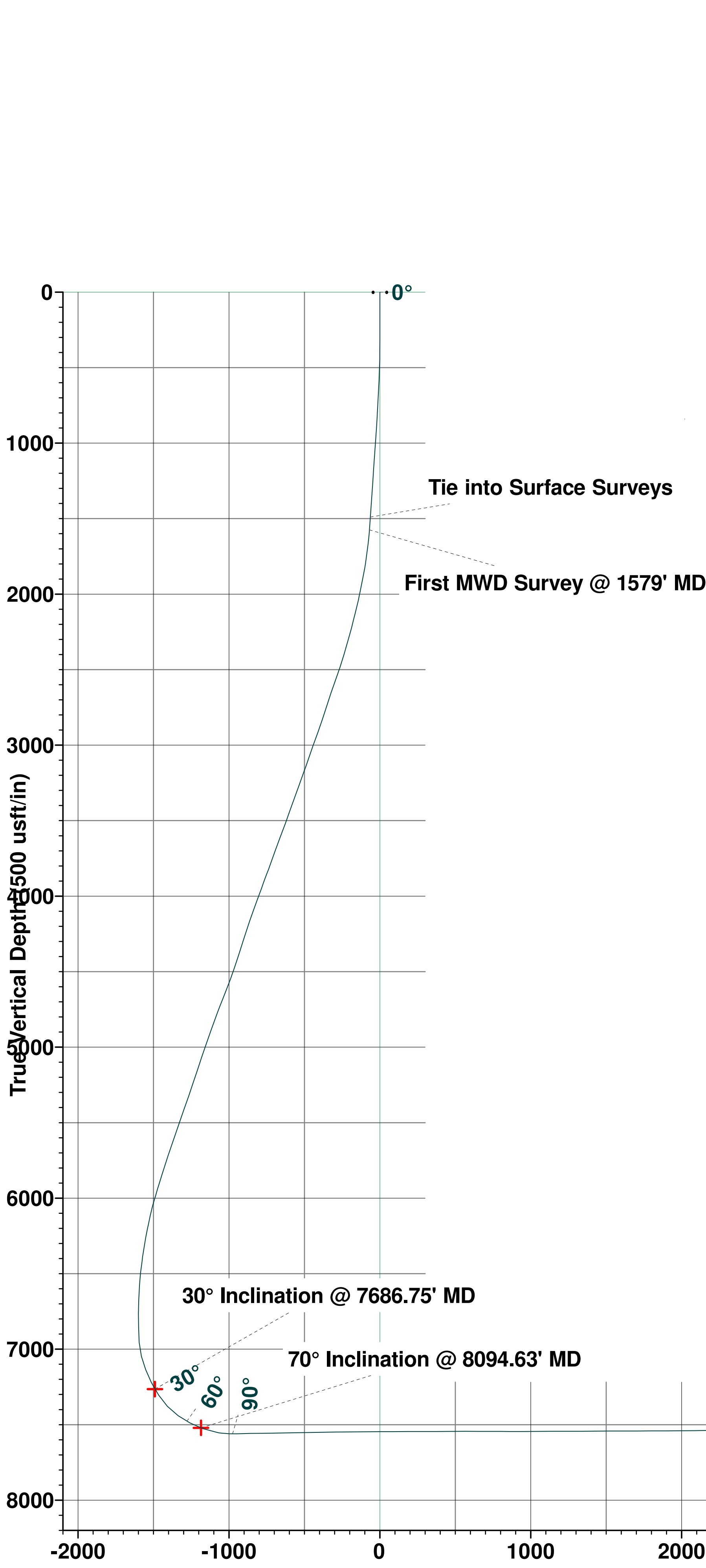
WELL DETAILS: Fox Creek 34-0461B

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

Northing	Easting	Latitude	Longitude
1597977.04	3296933.26	40.969865	-104.424787

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1493.00	5.36	39.34	1489.64	62.96	56.73	-62.64	86.59	Tie into Surface Surveys
1579.00	5.86	45.59	1575.23	69.14	62.42	-68.79	95.00	First MWD Survey @ 1579' MD
7686.75	29.98	180.68	7264.72	1498.07	1314.43	-1490.71	2188.22	30° Inclination @ 7686.75' MD
8094.63	70.00	178.21	7521.47	1192.84	1328.77	-1185.40	2492.93	70° Inclination @ 8094.63' MD
13369.78	90.20	180.06	7529.21	-4075.50	1360.06	4083.03	7762.26	Cross @ 13369.78' MD
18517.00	89.88	181.52	7547.89	-9220.45	1390.62	9228.07	12908.89	Last MWD Survey @ 18517' MD
18584.00	89.88	181.52	7548.03	-9287.42	1388.84	9295.03	12975.89	Projection to TD @ 18584' MD 91.5' FSL/ 2406' FWL



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Strength: 52692.0nT

Dip Angle: 67.24°

Date: 10/8/2019

Model: USER DEFINED



HighPoint Resources

Weld County, CO (NAD83)

Sec 34-T12N-R63W

Fox Creek 34-0461B

Wellbore #1

Design: Wellbore #1

Standard Survey Report

18 October, 2019

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0461B
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 34-0461B	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 34-0461B				
Well Position	+N/-S	0.00 usft	Northing:	1,597,977.04 usft	Latitude:	40.969865
	+E/-W	0.00 usft	Easting:	3,296,933.26 usft	Longitude:	-104.424787
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)
	User Defined	10/8/2019	8.34	67.24	52,692.00000000

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	179.68	

Survey Program	Date	10/18/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
209.00	1,493.00	Surface Surveys (Wellbore #1)	MWD	MWD - Standard	
1,579.00	18,584.00	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	0.52	129.34	209.00	-0.60	0.73	0.61	0.25	0.25	0.00	
304.00	0.58	33.00	303.99	-0.47	1.33	0.48	0.86	0.06	-101.41	
399.00	0.99	73.58	398.99	0.16	2.38	-0.15	0.70	0.43	42.72	
494.00	2.67	44.94	493.94	1.96	4.73	-1.94	1.96	1.77	-30.15	
589.00	3.39	41.33	588.80	5.64	8.15	-5.59	0.78	0.76	-3.80	
685.00	4.70	47.16	684.56	10.44	12.90	-10.37	1.43	1.36	6.07	
781.00	4.67	47.76	780.24	15.75	18.68	-15.64	0.06	-0.03	0.63	
876.00	4.58	43.28	874.93	21.11	24.15	-20.97	0.39	-0.09	-4.72	
971.00	4.87	35.45	969.61	27.15	29.08	-26.99	0.74	0.31	-8.24	

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0461B
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 34-0461B	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	5.00	36.01	1,064.26	33.79	33.86	-33.60	0.15	0.14	0.59
1,161.00	4.59	33.89	1,158.92	40.29	38.41	-40.08	0.47	-0.43	-2.23
1,255.00	4.97	39.03	1,252.60	46.58	43.07	-46.33	0.61	0.40	5.47
1,351.00	5.17	39.93	1,348.22	53.12	48.47	-52.85	0.22	0.21	0.94
1,446.00	5.15	40.35	1,442.84	59.65	53.98	-59.35	0.04	-0.02	0.44
1,493.00	5.36	39.34	1,489.64	62.96	56.73	-62.64	0.49	0.45	-2.15
Tie into Surface Surveys									
1,579.00	5.86	45.59	1,575.23	69.14	62.42	-68.79	0.92	0.58	7.27
First MWD Survey @ 1579' MD									
1,674.00	8.70	39.23	1,669.45	78.10	70.43	-77.71	3.10	2.99	-6.69
1,769.00	9.70	31.28	1,763.24	90.51	79.13	-90.06	1.70	1.05	-8.37
1,864.00	12.25	31.22	1,856.49	105.97	88.51	-105.47	2.68	2.68	-0.06
1,959.00	13.74	34.88	1,949.06	123.84	100.18	-123.28	1.79	1.57	3.85
2,053.00	15.70	37.79	2,039.97	143.05	114.36	-142.41	2.23	2.09	3.10
2,149.00	17.76	38.24	2,131.90	164.82	131.38	-164.08	2.15	2.15	0.47
2,244.00	19.31	39.99	2,221.97	188.24	150.45	-187.39	1.73	1.63	1.84
2,339.00	20.83	42.74	2,311.20	212.68	172.01	-211.71	1.88	1.60	2.89
2,433.00	22.60	42.65	2,398.53	238.24	195.59	-237.14	1.88	1.88	-0.10
2,528.00	24.60	42.55	2,485.58	266.23	221.33	-264.99	2.11	2.11	-0.11
2,623.00	25.13	40.54	2,571.77	296.13	247.81	-294.74	1.05	0.56	-2.12
2,717.00	23.83	40.64	2,657.32	325.71	273.16	-324.18	1.38	-1.38	0.11
2,812.00	22.99	40.34	2,744.50	354.41	297.67	-352.75	0.89	-0.88	-0.32
2,906.00	23.63	39.35	2,830.83	382.98	321.49	-381.17	0.80	0.68	-1.05
3,001.00	24.45	36.98	2,917.59	413.40	345.39	-411.47	1.33	0.86	-2.49
3,096.00	23.92	36.28	3,004.25	444.64	368.62	-442.57	0.63	-0.56	-0.74
3,191.00	23.64	39.25	3,091.19	474.91	392.06	-472.72	1.29	-0.29	3.13
3,286.00	25.15	39.05	3,177.70	505.34	416.83	-503.01	1.59	1.59	-0.21
3,381.00	25.19	38.69	3,263.68	536.80	442.19	-534.32	0.17	0.04	-0.38
3,475.00	24.85	38.57	3,348.86	567.86	467.01	-565.24	0.37	-0.36	-0.13
3,571.00	24.69	38.25	3,436.03	599.37	492.00	-596.62	0.22	-0.17	-0.33
3,665.00	24.96	38.41	3,521.34	630.33	516.48	-627.44	0.30	0.29	0.17
3,760.00	25.42	37.88	3,607.31	662.13	541.45	-659.10	0.54	0.48	-0.56
3,855.00	25.28	38.98	3,693.16	693.99	566.73	-690.82	0.52	-0.15	1.16
3,950.00	25.82	41.95	3,778.87	725.15	593.32	-721.82	1.46	0.57	3.13
4,045.00	27.00	41.63	3,863.96	756.66	621.47	-753.17	1.25	1.24	-0.34
4,140.00	25.93	40.97	3,949.00	788.46	649.42	-784.82	1.17	-1.13	-0.69
4,235.00	25.52	40.46	4,034.59	819.71	676.32	-815.92	0.49	-0.43	-0.54
4,330.00	25.15	39.39	4,120.45	850.88	702.41	-846.95	0.62	-0.39	-1.13
4,423.00	23.71	40.07	4,205.12	880.47	726.99	-876.39	1.58	-1.55	0.73
4,518.00	23.11	41.54	4,292.30	909.04	751.65	-904.83	0.88	-0.63	1.55
4,614.00	23.23	42.47	4,380.56	937.11	776.92	-932.75	0.40	0.13	0.97
4,709.00	24.76	43.25	4,467.35	965.42	803.21	-960.92	1.64	1.61	0.82
4,804.00	27.01	41.99	4,552.81	995.94	831.27	-991.29	2.44	2.37	-1.33

Survey Report

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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)
4,899.00	27.30	39.47	4,637.34	1,028.80	859.55	-1,023.98	1.25	0.31	-2.65
4,993.00	26.29	38.60	4,721.25	1,061.71	886.24	-1,056.74	1.15	-1.07	-0.93
5,089.00	25.27	38.56	4,807.69	1,094.35	912.28	-1,089.23	1.06	-1.06	-0.04
5,183.00	24.97	38.94	4,892.80	1,125.47	937.26	-1,120.22	0.36	-0.32	0.40
5,277.00	24.09	39.65	4,978.32	1,155.67	961.97	-1,150.28	0.99	-0.94	0.76
5,372.00	23.42	40.11	5,065.27	1,185.04	986.50	-1,179.51	0.73	-0.71	0.48
5,466.00	23.58	39.62	5,151.47	1,213.81	1,010.53	-1,208.15	0.27	0.17	-0.52
5,560.00	23.31	38.37	5,237.71	1,242.87	1,034.06	-1,237.08	0.60	-0.29	-1.33
5,655.00	24.11	38.03	5,324.69	1,272.89	1,057.69	-1,266.97	0.85	0.84	-0.36
5,750.00	24.72	37.74	5,411.20	1,303.89	1,081.80	-1,297.82	0.65	0.64	-0.31
5,845.00	23.78	40.43	5,497.81	1,334.18	1,106.38	-1,327.98	1.53	-0.99	2.83
5,941.00	24.03	38.72	5,585.58	1,364.16	1,131.16	-1,357.82	0.77	0.26	-1.78
6,036.00	22.69	35.47	5,672.79	1,394.18	1,153.89	-1,387.71	1.96	-1.41	-3.42
6,131.00	21.25	35.09	5,760.89	1,423.19	1,174.42	-1,416.60	1.52	-1.52	-0.40
6,225.00	21.14	33.21	5,848.54	1,451.31	1,193.50	-1,444.62	0.73	-0.12	-2.00
6,319.00	19.62	31.02	5,936.65	1,479.02	1,210.92	-1,472.23	1.81	-1.62	-2.33
6,413.00	18.38	31.17	6,025.53	1,505.22	1,226.72	-1,498.35	1.32	-1.32	0.16
6,508.00	16.62	39.79	6,116.14	1,528.48	1,243.17	-1,521.52	3.29	-1.85	9.07
6,602.00	15.20	42.41	6,206.54	1,547.91	1,260.09	-1,540.85	1.69	-1.51	2.79
6,696.00	12.73	42.65	6,297.76	1,564.63	1,275.42	-1,557.48	2.63	-2.63	0.26
6,790.00	10.40	34.81	6,389.85	1,579.22	1,287.28	-1,572.00	2.98	-2.48	-8.34
6,884.00	7.77	35.54	6,482.66	1,591.36	1,295.82	-1,584.09	2.80	-2.80	0.78
6,978.00	4.85	38.63	6,576.08	1,599.63	1,301.99	-1,592.34	3.13	-3.11	3.29
7,073.00	3.04	39.79	6,670.85	1,604.71	1,306.11	-1,597.39	1.91	-1.91	1.22
7,168.00	0.56	5.25	6,765.80	1,607.10	1,307.77	-1,599.77	2.73	-2.61	-36.36
7,262.00	1.61	192.01	6,859.79	1,606.27	1,307.53	-1,598.94	2.31	1.12	-184.30
7,356.00	3.84	175.78	6,953.68	1,601.84	1,307.49	-1,594.51	2.49	2.37	-17.27
7,451.00	14.02	171.02	7,047.40	1,587.26	1,309.53	-1,579.92	10.73	10.72	-5.01
7,544.00	21.58	171.83	7,135.89	1,559.16	1,313.72	-1,551.80	8.13	8.13	0.87
7,639.00	26.51	182.94	7,222.66	1,520.65	1,315.12	-1,513.28	7.03	5.19	11.69
7,686.75	29.98	180.68	7,264.72	1,498.07	1,314.43	-1,490.71	7.61	7.28	-4.73
30° Inclination @ 7686.75' MD									
7,733.00	33.38	178.91	7,304.07	1,473.79	1,314.53	-1,466.42	7.61	7.34	-3.83
7,827.00	43.25	177.38	7,377.74	1,415.62	1,316.50	-1,408.24	10.55	10.50	-1.63
7,922.00	54.55	177.07	7,440.09	1,344.23	1,319.98	-1,336.84	11.90	11.89	-0.33
8,016.00	61.98	175.74	7,489.50	1,264.50	1,325.03	-1,257.08	8.00	7.90	-1.41
8,094.63	70.00	178.21	7,521.47	1,192.84	1,328.77	-1,185.40	10.59	10.20	3.14
70° Inclination @ 8094.63' MD									
8,106.00	71.16	178.54	7,525.25	1,182.12	1,329.07	-1,174.68	10.59	10.22	2.93
8,206.00	77.92	183.09	7,551.90	1,085.84	1,327.64	-1,078.40	8.06	6.76	4.55
8,216.00	79.68	182.94	7,553.85	1,076.04	1,327.12	-1,068.61	17.66	17.60	-1.50
8,221.00	80.60	182.72	7,554.70	1,071.12	1,326.88	-1,063.69	18.90	18.40	-4.40
8,237.00	83.31	182.16	7,556.94	1,055.29	1,326.21	-1,047.87	17.29	16.94	-3.50
8,290.00	88.84	181.40	7,560.57	1,002.46	1,324.57	-995.05	10.53	10.43	-1.43

Survey Report

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Site:	Sec 34-T12N-R63W	MD Reference:	KB @ 5470.80usft (Savanna 802)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
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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)	
8,337.00	91.67	180.85	7,560.36	955.48	1,323.64	-948.07	6.13	6.02	-1.17	
8,432.00	90.81	179.91	7,558.30	860.50	1,323.01	-853.10	1.34	-0.91	-0.99	
8,526.00	90.64	179.86	7,557.11	766.51	1,323.20	-759.11	0.19	-0.18	-0.05	
8,620.00	91.03	179.74	7,555.74	672.52	1,323.53	-665.12	0.43	0.41	-0.13	
8,715.00	91.10	179.67	7,553.98	577.54	1,324.02	-570.14	0.10	0.07	-0.07	
8,809.00	91.04	179.67	7,552.22	483.56	1,324.56	-476.15	0.06	-0.06	0.00	
8,904.00	91.27	178.97	7,550.31	388.59	1,325.69	-381.18	0.78	0.24	-0.74	
8,998.00	90.62	179.42	7,548.76	294.61	1,327.01	-287.19	0.84	-0.69	0.48	
9,093.00	90.32	179.33	7,547.98	199.62	1,328.04	-192.20	0.33	-0.32	-0.09	
9,188.00	90.31	178.55	7,547.46	104.64	1,329.80	-97.21	0.82	-0.01	-0.82	
9,282.00	90.27	178.36	7,546.98	10.67	1,332.34	-3.23	0.21	-0.04	-0.20	
9,378.00	90.30	177.94	7,546.50	-85.28	1,335.43	92.73	0.44	0.03	-0.44	
9,472.00	90.41	179.29	7,545.92	-179.25	1,337.71	186.71	1.44	0.12	1.44	
9,566.00	90.28	179.57	7,545.35	-273.24	1,338.64	280.71	0.33	-0.14	0.30	
9,662.00	90.05	179.08	7,545.08	-369.23	1,339.77	376.71	0.56	-0.24	-0.51	
9,757.00	90.09	180.06	7,544.96	-464.23	1,340.49	471.71	1.03	0.04	1.03	
9,852.00	90.53	179.75	7,544.45	-559.23	1,340.64	566.71	0.57	0.46	-0.33	
9,947.00	89.34	178.08	7,544.56	-654.20	1,342.44	661.69	2.16	-1.25	-1.76	
10,043.00	90.30	180.36	7,544.86	-750.19	1,343.75	757.68	2.58	1.00	2.38	
10,138.00	89.09	180.51	7,545.36	-845.18	1,343.03	852.67	1.28	-1.27	0.16	
10,233.00	90.81	180.71	7,545.45	-940.17	1,342.02	947.65	1.82	1.81	0.21	
10,329.00	90.24	180.19	7,544.57	-1,036.17	1,341.26	1,043.64	0.80	-0.59	-0.54	
10,424.00	89.97	180.78	7,544.39	-1,131.16	1,340.46	1,138.63	0.68	-0.28	0.62	
10,519.00	90.20	180.89	7,544.25	-1,226.15	1,339.07	1,233.61	0.27	0.24	0.12	
10,614.00	90.62	181.32	7,543.57	-1,321.13	1,337.24	1,328.58	0.63	0.44	0.45	
10,709.00	90.49	181.27	7,542.65	-1,416.10	1,335.09	1,423.54	0.15	-0.14	-0.05	
10,804.00	89.98	181.31	7,542.26	-1,511.08	1,332.96	1,518.50	0.54	-0.54	0.04	
10,899.00	89.79	179.33	7,542.45	-1,606.07	1,332.43	1,613.49	2.09	-0.20	-2.08	
10,994.00	90.63	179.19	7,542.10	-1,701.06	1,333.65	1,708.48	0.90	0.88	-0.15	
11,089.00	89.54	177.47	7,541.96	-1,796.02	1,336.42	1,803.45	2.14	-1.15	-1.81	
11,184.00	91.19	177.77	7,541.36	-1,890.93	1,340.37	1,898.38	1.77	1.74	0.32	
11,279.00	90.33	176.58	7,540.10	-1,985.80	1,345.05	1,993.28	1.55	-0.91	-1.25	
11,374.00	90.30	176.80	7,539.58	-2,080.64	1,350.53	2,088.15	0.23	-0.03	0.23	
11,469.00	91.89	178.06	7,537.76	-2,175.52	1,354.79	2,183.06	2.14	1.67	1.33	
11,565.00	91.47	179.08	7,534.95	-2,271.45	1,357.19	2,279.00	1.15	-0.44	1.06	
11,660.00	88.57	177.38	7,534.91	-2,366.39	1,360.12	2,373.95	3.54	-3.05	-1.79	
11,755.00	89.32	178.64	7,536.66	-2,461.32	1,363.42	2,468.89	1.54	0.79	1.33	
11,850.00	91.47	181.20	7,536.01	-2,556.30	1,363.55	2,563.88	3.52	2.26	2.69	
11,945.00	90.16	179.97	7,534.66	-2,651.28	1,362.58	2,658.85	1.89	-1.38	-1.29	
12,040.00	90.84	180.33	7,533.83	-2,746.28	1,362.33	2,753.84	0.81	0.72	0.38	
12,135.00	92.15	179.05	7,531.35	-2,841.24	1,362.85	2,848.81	1.93	1.38	-1.35	
12,231.00	91.69	178.67	7,528.13	-2,937.17	1,364.76	2,944.74	0.62	-0.48	-0.40	
12,326.00	90.26	179.73	7,526.52	-3,032.14	1,366.08	3,039.72	1.87	-1.51	1.12	

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0461B
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 34-0461B	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)	
12,421.00	90.88	180.28	7,525.57	-3,127.13	1,366.07	3,134.71	0.87	0.65	0.58	
12,517.00	91.93	179.98	7,523.22	-3,223.10	1,365.85	3,230.68	1.14	1.09	-0.31	
12,612.00	90.30	180.93	7,521.37	-3,318.08	1,365.10	3,325.65	1.99	-1.72	1.00	
12,707.00	91.83	181.05	7,519.60	-3,413.04	1,363.46	3,420.61	1.62	1.61	0.13	
12,802.00	89.87	180.96	7,518.19	-3,508.01	1,361.79	3,515.57	2.07	-2.06	-0.09	
12,898.00	87.46	181.44	7,520.43	-3,603.96	1,359.78	3,611.50	2.56	-2.51	0.50	
12,993.00	88.48	181.12	7,523.79	-3,698.88	1,357.66	3,706.40	1.13	1.07	-0.34	
13,088.00	89.94	181.53	7,525.10	-3,793.84	1,355.47	3,801.35	1.60	1.54	0.43	
13,183.00	89.00	178.24	7,525.98	-3,888.82	1,355.66	3,896.33	3.60	-0.99	-3.46	
13,199.00	88.16	178.29	7,526.38	-3,904.81	1,356.14	3,912.32	5.26	-5.25	0.31	
13,278.00	88.84	178.13	7,528.45	-3,983.74	1,358.61	3,991.27	0.88	0.86	-0.20	
13,369.78	90.20	180.06	7,529.21	-4,075.50	1,360.06	4,083.03	2.58	1.48	2.11	
Cross @ 13369.78' MD										
13,373.00	90.25	180.13	7,529.20	-4,078.72	1,360.05	4,086.25	2.58	1.48	2.11	
13,468.00	91.43	180.60	7,527.81	-4,173.71	1,359.45	4,181.23	1.34	1.24	0.49	
13,563.00	89.73	180.95	7,526.85	-4,268.69	1,358.16	4,276.21	1.83	-1.79	0.37	
13,658.00	90.27	180.08	7,526.85	-4,363.68	1,357.31	4,371.20	1.08	0.57	-0.92	
13,753.00	88.06	178.72	7,528.23	-4,458.66	1,358.30	4,466.18	2.73	-2.33	-1.43	
13,848.00	88.59	178.71	7,531.01	-4,553.60	1,360.43	4,561.12	0.56	0.56	-0.01	
13,944.00	90.12	178.61	7,532.09	-4,649.56	1,362.68	4,657.10	1.60	1.59	-0.10	
14,039.00	92.17	179.19	7,530.19	-4,744.52	1,364.50	4,752.07	2.24	2.16	0.61	
14,134.00	91.76	179.74	7,526.93	-4,839.46	1,365.39	4,847.01	0.72	-0.43	0.58	
14,229.00	90.48	180.02	7,525.08	-4,934.44	1,365.58	4,941.99	1.38	-1.35	0.29	
14,325.00	89.50	180.10	7,525.09	-5,030.44	1,365.48	5,037.98	1.02	-1.02	0.08	
14,420.00	89.93	180.13	7,525.57	-5,125.43	1,365.29	5,132.98	0.45	0.45	0.03	
14,516.00	88.11	176.75	7,527.21	-5,221.37	1,367.90	5,228.93	4.00	-1.90	-3.52	
14,612.00	87.41	178.65	7,530.96	-5,317.21	1,371.75	5,324.79	2.11	-0.73	1.98	
14,707.00	88.12	182.10	7,534.67	-5,412.12	1,371.13	5,419.70	3.70	0.75	3.63	
14,803.00	91.17	183.26	7,535.26	-5,508.00	1,366.64	5,515.55	3.40	3.18	1.21	
14,898.00	90.35	181.67	7,534.00	-5,602.90	1,362.56	5,610.42	1.88	-0.86	-1.67	
14,993.00	89.60	180.98	7,534.04	-5,697.88	1,360.36	5,705.38	1.07	-0.79	-0.73	
15,088.00	89.54	181.53	7,534.76	-5,792.85	1,358.28	5,800.35	0.58	-0.06	0.58	
15,184.00	90.22	179.51	7,534.96	-5,888.84	1,357.41	5,896.33	2.22	0.71	-2.10	
15,279.00	90.14	179.66	7,534.66	-5,983.84	1,358.10	5,991.33	0.18	-0.08	0.16	
15,374.00	90.00	179.62	7,534.54	-6,078.84	1,358.70	6,086.33	0.15	-0.15	-0.04	
15,469.00	90.29	179.56	7,534.30	-6,173.83	1,359.38	6,181.33	0.31	0.31	-0.06	
15,564.00	90.03	180.04	7,534.04	-6,268.83	1,359.71	6,276.33	0.57	-0.27	0.51	
15,659.00	90.16	180.39	7,533.88	-6,363.83	1,359.35	6,371.32	0.39	0.14	0.37	
15,754.00	89.78	180.57	7,533.93	-6,458.83	1,358.55	6,466.31	0.44	-0.40	0.19	
15,848.00	89.64	180.69	7,534.40	-6,552.82	1,357.52	6,560.30	0.20	-0.15	0.13	
15,944.00	88.01	179.28	7,536.37	-6,648.79	1,357.55	6,656.27	2.24	-1.70	-1.47	
16,039.00	88.62	180.17	7,539.17	-6,743.75	1,358.00	6,751.23	1.14	0.64	0.94	
16,134.00	89.22	180.37	7,540.96	-6,838.73	1,357.55	6,846.21	0.67	0.63	0.21	
16,230.00	89.65	179.07	7,541.90	-6,934.72	1,358.02	6,942.20	1.43	0.45	-1.35	

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0461B
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 34-0461B	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)
16,325.00	89.56	179.32	7,542.56	-7,029.71	1,359.36	7,037.19	0.28	-0.09	0.26
16,420.00	89.27	180.17	7,543.53	-7,124.71	1,359.78	7,132.19	0.95	-0.31	0.89
16,515.00	89.45	180.61	7,544.59	-7,219.70	1,359.13	7,227.17	0.50	0.19	0.46
16,610.00	90.73	182.23	7,544.44	-7,314.66	1,356.78	7,322.13	2.17	1.35	1.71
16,705.00	89.46	180.54	7,544.28	-7,409.63	1,354.48	7,417.08	2.23	-1.34	-1.78
16,800.00	89.71	180.04	7,544.97	-7,504.62	1,354.00	7,512.07	0.59	0.26	-0.53
16,895.00	89.95	179.70	7,545.25	-7,599.62	1,354.22	7,607.07	0.44	0.25	-0.36
16,990.00	89.80	181.91	7,545.46	-7,694.61	1,352.88	7,702.04	2.33	-0.16	2.33
17,085.00	90.00	177.89	7,545.63	-7,789.59	1,353.05	7,797.02	4.24	0.21	-4.23
17,180.00	88.50	176.68	7,546.87	-7,884.47	1,357.55	7,891.93	2.03	-1.58	-1.27
17,275.00	89.72	176.90	7,548.35	-7,979.31	1,362.87	7,986.79	1.30	1.28	0.23
17,370.00	89.84	178.17	7,548.71	-8,074.22	1,366.95	8,081.73	1.34	0.13	1.34
17,466.00	90.85	177.16	7,548.13	-8,170.13	1,370.86	8,177.66	1.49	1.05	-1.05
17,547.00	88.95	175.34	7,548.27	-8,250.95	1,376.16	8,258.51	3.25	-2.35	-2.25
17,561.00	88.96	175.63	7,548.53	-8,264.91	1,377.26	8,272.47	2.07	0.07	2.07
17,656.00	91.10	178.50	7,548.48	-8,359.77	1,382.13	8,367.35	3.77	2.25	3.02
17,752.00	91.88	179.68	7,545.98	-8,455.72	1,383.65	8,463.32	1.47	0.81	1.23
17,847.00	89.60	176.48	7,544.76	-8,550.64	1,386.83	8,558.25	4.14	-2.40	-3.37
17,942.00	89.28	177.73	7,545.68	-8,645.51	1,391.63	8,653.15	1.36	-0.34	1.32
18,037.00	89.57	179.66	7,546.64	-8,740.48	1,393.80	8,748.13	2.05	0.31	2.03
18,133.00	89.76	180.10	7,547.20	-8,836.48	1,394.00	8,844.12	0.50	0.20	0.46
18,228.00	89.87	179.98	7,547.51	-8,931.47	1,393.93	8,939.12	0.17	0.12	-0.13
18,323.00	89.91	180.26	7,547.69	-9,026.47	1,393.73	9,034.12	0.30	0.04	0.29
18,419.00	89.93	181.16	7,547.82	-9,122.47	1,392.54	9,130.10	0.94	0.02	0.94
18,515.00	89.99	181.08	7,547.89	-9,218.45	1,390.66	9,226.07	0.10	0.06	-0.08
18,517.00	89.88	181.52	7,547.89	-9,220.45	1,390.62	9,228.07	22.68	-5.50	22.00
Last MWD Survey @ 18517' MD									
18,584.00	89.88	181.52	7,548.03	-9,287.42	1,388.84	9,295.04	0.00	0.00	0.00
Projection to TD @ 18584' MD 91.5' FSL/ 2406' FWL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
30° Inclination @ 7686.7	0.00	0.00	7,264.72	1,498.07	1,314.39	1,599,490.93	3,298,229.39	40.973976	-104.420028
- hit/miss target									
- Shape									
- actual wellpath misses target center by 0.04usft at 7686.75usft MD (7264.72 TVD, 1498.07 N, 1314.43 E)									
- Point									
70° Inclination @ 8094.6	0.00	0.00	7,521.47	1,192.84	1,328.78	1,599,185.90	3,298,247.48	40.973139	-104.419976
- hit/miss target									
- Shape									
- actual wellpath misses target center by 0.01usft at 8094.63usft MD (7521.47 TVD, 1192.84 N, 1328.77 E)									
- Point									
Cross @ 13369.78' MD	0.00	0.00	7,529.21	-4,075.50	1,360.06	1,593,918.33	3,298,342.63	40.958680	-104.419863
- hit/miss target									
- Shape									
- actual wellpath hits target center									
- Point									

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Fox Creek 34-0461B
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 34-0461B	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,493.00	1,489.64	62.96	56.73	Tie into Surface Surveys
1,579.00	1,575.23	69.14	62.42	First MWD Survey @ 1579' MD
7,686.75	7,264.72	1,498.07	1,314.43	30° Inclination @ 7686.75' MD
8,094.63	7,521.47	1,192.84	1,328.77	70° Inclination @ 8094.63' MD
13,369.78	7,529.21	-4,075.50	1,360.06	Cross @ 13369.78' MD
18,517.00	7,547.89	-9,220.45	1,390.62	Last MWD Survey @ 18517' MD
18,584.00	7,548.03	-9,287.42	1,388.84	Projection to TD @ 18584' MD 91.5' FSL/ 2406' FWL

Checked By: _____ Approved By: _____ Date: _____