



HighPoint Resources

Weld County, CO (NAD83)

Sec 04-T04N-R61W

RSU Anschutz Fed 4-61-05-2421C

Wellbore #1

Design: Wellbore #1

Standard Survey Report

18 October, 2019

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-2421C
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 4518.00usft (Cade 23)
Site:	Sec 04-T04N-R61W	MD Reference:	KB @ 4518.00usft (Cade 23)
Well:	RSU Anschutz Fed 4-61-05-2421C	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 04-T04N-R61W			
Site Position:		Northing:	1,372,892.85 usft	Latitude:	40.349985
From:	Lat/Long	Easting:	3,355,207.48 usft	Longitude:	-104.225513
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.82 °

Well	RSU Anschutz Fed 4-61-05-2421C					
Well Position	+N/-S	0.00 usft	Northing:	1,371,419.10 usft	Latitude:	40.345925
	+E/-W	0.00 usft	Easting:	3,355,586.30 usft	Longitude:	-104.224230
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,501.50 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/27/2019	7.71	66.84	52,200.76657826

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	269.43	

Survey Program	Date	10/18/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
149.00	775.00	Surface Surveys (Wellbore #1)	MWD	MWD - Standard	
775.00	19,210.00	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
	149.00	0.27	208.75	149.00	-0.31	-0.17	0.17	0.18	0.18	0.00
	242.00	0.44	195.57	242.00	-0.84	-0.37	0.38	0.20	0.18	-14.17
	334.00	0.75	344.91	334.00	-0.60	-0.62	0.63	1.25	0.34	162.33
	426.00	1.55	191.74	425.99	-1.24	-1.03	1.04	2.44	0.87	-166.49
	517.00	3.14	187.28	516.91	-4.92	-1.60	1.65	1.76	1.75	-4.90
	610.00	4.55	195.44	609.70	-11.00	-2.90	3.01	1.62	1.52	8.77
	701.00	4.51	191.96	700.41	-17.98	-4.61	4.78	0.31	-0.04	-3.82
	775.00	4.82	194.07	774.17	-23.84	-5.96	6.20	0.48	0.42	2.85
Tie into Surface Surveys										

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Site:	Sec 04-T04N-R61W	MD Reference:	KB @ 4518.00usft (Cade 23)
Well:	RSU Anschutz Fed 4-61-05-2421C	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)	
886.00	4.84	194.52	884.77	-32.90	-8.27	8.60	0.04	0.02	0.41	
First MWD Survey @ 886' MD										
977.00	6.94	195.90	975.29	-41.90	-10.74	11.16	2.31	2.31	1.52	
1,069.00	8.57	201.08	1,066.44	-53.65	-14.73	15.26	1.93	1.77	5.63	
1,161.00	8.69	199.50	1,157.40	-66.59	-19.51	20.18	0.29	0.13	-1.72	
1,253.00	8.59	199.42	1,248.36	-79.62	-24.12	24.91	0.11	-0.11	-0.09	
1,346.00	8.80	196.94	1,340.29	-92.98	-28.50	29.42	0.46	0.23	-2.67	
1,438.00	8.78	195.04	1,431.21	-106.49	-32.37	33.43	0.32	-0.02	-2.07	
1,530.00	8.21	190.25	1,522.20	-119.74	-35.36	36.55	0.99	-0.62	-5.21	
1,625.00	7.82	187.14	1,616.27	-132.83	-37.37	38.69	0.61	-0.41	-3.27	
1,721.00	7.68	183.44	1,711.40	-145.71	-38.57	40.02	0.54	-0.15	-3.85	
1,816.00	8.58	187.91	1,805.44	-159.06	-39.93	41.51	1.16	0.95	4.71	
1,912.00	9.12	198.01	1,900.30	-173.39	-43.27	44.99	1.71	0.56	10.52	
2,007.00	9.19	205.32	1,994.10	-187.41	-48.84	50.70	1.23	0.07	7.69	
2,102.00	9.49	203.47	2,087.84	-201.45	-55.20	57.20	0.45	0.32	-1.95	
2,198.00	8.92	201.13	2,182.60	-215.65	-61.04	63.18	0.71	-0.59	-2.44	
2,293.00	8.56	198.01	2,276.50	-229.25	-65.88	68.16	0.63	-0.38	-3.28	
2,389.00	8.43	197.54	2,371.45	-242.75	-70.21	72.62	0.15	-0.14	-0.49	
2,484.00	8.22	196.16	2,465.45	-255.92	-74.20	76.74	0.31	-0.22	-1.45	
2,579.00	8.11	193.26	2,559.48	-268.96	-77.62	80.30	0.45	-0.12	-3.05	
2,675.00	7.89	192.65	2,654.55	-281.98	-80.62	83.42	0.25	-0.23	-0.64	
2,770.00	7.59	191.16	2,748.68	-294.50	-83.26	86.19	0.38	-0.32	-1.57	
2,866.00	7.17	190.92	2,843.89	-306.60	-85.62	88.67	0.44	-0.44	-0.25	
2,962.00	6.31	192.48	2,939.22	-317.64	-87.90	91.05	0.92	-0.90	1.63	
3,057.00	5.67	193.07	3,033.70	-327.30	-90.09	93.34	0.68	-0.67	0.62	
3,153.00	6.30	194.35	3,129.18	-337.03	-92.47	95.81	0.67	0.66	1.33	
3,248.00	8.19	196.08	3,223.42	-348.58	-95.63	99.10	2.00	1.99	1.82	
3,343.00	8.40	196.05	3,317.42	-361.75	-99.43	103.02	0.22	0.22	-0.03	
3,439.00	7.54	184.34	3,412.50	-374.77	-101.84	105.56	1.91	-0.90	-12.20	
3,535.00	6.50	181.00	3,507.78	-386.48	-102.41	106.25	1.16	-1.08	-3.48	
3,631.00	5.06	175.72	3,603.29	-396.14	-102.19	106.13	1.60	-1.50	-5.50	
3,727.00	3.13	167.89	3,699.04	-402.92	-101.33	105.33	2.09	-2.01	-8.16	
3,822.00	0.43	284.98	3,794.00	-405.37	-101.13	105.15	3.52	-2.84	123.25	
3,918.00	0.87	300.26	3,889.99	-404.91	-102.10	106.13	0.49	0.46	15.92	
4,014.00	0.87	112.00	3,985.99	-404.81	-102.06	106.08	1.81	0.00	178.90	
4,110.00	1.76	101.10	4,081.96	-405.37	-99.93	103.96	0.96	0.93	-11.35	
4,206.00	1.81	115.20	4,177.91	-406.30	-97.12	101.15	0.46	0.05	14.69	
4,301.00	2.08	109.26	4,272.86	-407.51	-94.13	98.18	0.35	0.28	-6.25	
4,396.00	0.81	61.43	4,367.83	-407.75	-91.91	95.97	1.74	-1.34	-50.35	
4,490.00	0.43	46.76	4,461.83	-407.20	-91.07	95.12	0.43	-0.40	-15.61	
4,585.00	0.59	78.54	4,556.82	-406.85	-90.33	94.38	0.34	0.17	33.45	
4,681.00	0.76	102.06	4,652.82	-406.89	-89.23	93.27	0.33	0.18	24.50	
4,777.00	0.75	358.42	4,748.81	-406.39	-88.62	92.66	1.24	-0.01	-107.96	

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Survey									
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4,873.00	0.26	326.80	4,844.81	-405.58	-88.76	92.79	0.57	-0.51	-32.94
4,969.00	0.48	265.06	4,940.80	-405.44	-89.28	93.31	0.44	0.23	-64.31
5,065.00	0.22	319.70	5,036.80	-405.33	-89.80	93.83	0.41	-0.27	56.92
5,160.00	0.63	283.26	5,131.80	-405.07	-90.42	94.45	0.50	0.43	-38.36
5,255.00	0.32	355.03	5,226.80	-404.69	-90.96	94.98	0.64	-0.33	75.55
5,351.00	0.39	193.62	5,322.80	-404.74	-91.06	95.08	0.73	0.07	-168.14
5,445.00	0.06	208.37	5,416.80	-405.09	-91.15	95.18	0.35	-0.35	15.69
5,541.00	1.07	261.52	5,512.79	-405.27	-92.06	96.09	1.08	1.05	55.36
5,635.00	13.93	276.78	5,605.79	-404.06	-104.22	108.23	13.72	13.68	16.23
5,730.00	22.45	283.09	5,695.97	-398.59	-133.30	137.26	9.19	8.97	6.64
5,799.77	29.87	271.69	5,758.59	-395.05	-163.70	167.63	12.80	10.64	-16.33
30° Inclination @ 5799.77' MD									
5,825.00	32.73	268.79	5,780.15	-395.01	-176.81	180.73	12.80	11.33	-11.51
5,920.00	43.05	270.07	5,855.02	-395.51	-235.07	238.99	10.89	10.86	1.35
6,015.00	53.35	271.21	5,918.26	-394.67	-305.78	309.70	10.88	10.84	1.20
6,110.00	61.08	271.74	5,969.66	-392.60	-385.56	389.45	8.15	8.14	0.56
6,117.31	62.34	271.67	5,973.12	-392.40	-392.00	395.88	17.22	17.20	-0.93
Cross @ 6117.31' MD									
6,161.86	70.00	271.29	5,991.11	-391.36	-432.71	436.58	17.22	17.20	-0.86
70° Inclination @ 6161.86' MD									
6,205.00	77.42	270.95	6,003.20	-390.55	-474.08	477.94	17.22	17.20	-0.78
6,290.00	87.85	271.98	6,014.08	-388.39	-558.23	562.07	12.33	12.27	1.21
6,400.00	91.89	270.05	6,014.33	-386.44	-668.18	672.00	4.07	3.67	-1.75
6,496.00	90.68	269.68	6,012.18	-386.67	-764.16	767.97	1.32	-1.26	-0.39
6,590.00	90.73	269.56	6,011.02	-387.29	-858.15	861.96	0.14	0.05	-0.13
6,685.00	88.91	269.14	6,011.32	-388.37	-953.14	956.95	1.97	-1.92	-0.44
6,780.00	88.46	269.58	6,013.50	-389.43	-1,048.11	1,051.93	0.66	-0.47	0.46
6,875.00	88.12	269.56	6,016.34	-390.14	-1,143.06	1,146.89	0.36	-0.36	-0.02
6,970.00	88.82	269.14	6,018.87	-391.22	-1,238.02	1,241.85	0.86	0.74	-0.44
7,065.00	87.67	268.79	6,021.78	-392.93	-1,332.96	1,336.80	1.27	-1.21	-0.37
7,160.00	88.27	268.15	6,025.15	-395.47	-1,427.86	1,431.73	0.92	0.63	-0.67
7,255.00	89.60	268.46	6,026.91	-398.28	-1,522.80	1,526.69	1.44	1.40	0.33
7,350.00	89.53	268.48	6,027.63	-400.82	-1,617.77	1,621.68	0.08	-0.07	0.02
7,445.00	88.87	268.45	6,028.96	-403.36	-1,712.72	1,716.65	0.70	-0.69	-0.03
7,540.00	90.64	268.43	6,029.37	-405.95	-1,807.68	1,811.63	1.86	1.86	-0.02
7,634.00	90.48	268.18	6,028.45	-408.73	-1,901.64	1,905.61	0.32	-0.17	-0.27
7,729.00	90.78	268.85	6,027.40	-411.19	-1,996.60	2,000.59	0.77	0.32	0.71
7,824.00	91.10	268.76	6,025.85	-413.17	-2,091.57	2,095.57	0.35	0.34	-0.09
7,920.00	90.68	269.48	6,024.35	-414.64	-2,187.54	2,191.56	0.87	-0.44	0.75
8,015.00	90.79	269.50	6,023.14	-415.49	-2,282.53	2,286.55	0.12	0.12	0.02
8,111.00	88.68	269.41	6,023.58	-416.40	-2,378.52	2,382.55	2.20	-2.20	-0.09
8,206.00	89.10	268.88	6,025.42	-417.82	-2,473.49	2,477.53	0.71	0.44	-0.56
8,302.00	89.55	269.17	6,026.55	-419.45	-2,569.47	2,573.52	0.56	0.47	0.30
8,398.00	89.47	269.48	6,027.37	-420.58	-2,665.46	2,669.51	0.33	-0.08	0.32

Survey Report

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Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Survey									
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8,494.00	89.57	271.13	6,028.18	-420.07	-2,761.45	2,765.49	1.72	0.10	1.72
8,590.00	89.66	271.77	6,028.82	-417.64	-2,857.42	2,861.43	0.67	0.09	0.67
8,686.00	88.78	268.89	6,030.13	-417.09	-2,953.40	2,957.40	3.14	-0.92	-3.00
8,782.00	88.68	268.96	6,032.26	-418.89	-3,049.36	3,053.37	0.13	-0.10	0.07
8,877.00	88.76	268.16	6,034.38	-421.28	-3,144.30	3,148.34	0.85	0.08	-0.84
8,973.00	88.14	267.87	6,036.98	-424.60	-3,240.21	3,244.27	0.71	-0.65	-0.30
9,068.00	89.57	267.62	6,038.87	-428.34	-3,335.11	3,339.21	1.53	1.51	-0.26
9,164.00	90.08	268.38	6,039.17	-431.69	-3,431.05	3,435.18	0.95	0.53	0.79
9,259.00	90.26	268.71	6,038.89	-434.10	-3,526.02	3,530.17	0.40	0.19	0.35
9,354.00	90.30	268.57	6,038.42	-436.36	-3,621.00	3,625.16	0.15	0.04	-0.15
9,450.00	90.27	268.61	6,037.94	-438.72	-3,716.96	3,721.15	0.05	-0.03	0.04
9,545.00	90.68	268.69	6,037.16	-440.96	-3,811.94	3,816.13	0.44	0.43	0.08
9,641.00	90.71	268.49	6,035.99	-443.32	-3,907.90	3,912.12	0.21	0.03	-0.21
9,736.00	90.58	269.57	6,034.92	-444.93	-4,002.88	4,007.11	1.14	-0.14	1.14
9,831.00	90.30	269.80	6,034.19	-445.45	-4,097.87	4,102.10	0.38	-0.29	0.24
9,925.00	90.43	270.19	6,033.59	-445.46	-4,191.87	4,196.10	0.44	0.14	0.41
10,020.00	89.92	269.87	6,033.30	-445.41	-4,286.87	4,291.09	0.63	-0.54	-0.34
10,116.00	89.81	270.08	6,033.53	-445.45	-4,382.87	4,387.08	0.25	-0.11	0.22
10,211.00	89.00	270.92	6,034.52	-444.62	-4,477.86	4,482.06	1.23	-0.85	0.88
10,307.00	88.41	271.41	6,036.69	-442.67	-4,573.81	4,577.99	0.80	-0.61	0.51
10,402.00	88.44	271.91	6,039.30	-439.92	-4,668.74	4,672.88	0.53	0.03	0.53
10,497.00	89.37	269.81	6,041.11	-438.49	-4,763.70	4,767.83	2.42	0.98	-2.21
10,593.00	89.41	270.02	6,042.13	-438.64	-4,859.70	4,863.82	0.22	0.04	0.22
10,687.00	87.94	269.56	6,044.31	-438.98	-4,953.67	4,957.79	1.64	-1.56	-0.49
10,782.00	88.63	269.60	6,047.15	-439.68	-5,048.62	5,052.75	0.73	0.73	0.04
10,878.00	89.43	268.71	6,048.78	-441.09	-5,144.60	5,148.73	1.25	0.83	-0.93
10,973.00	89.31	268.69	6,049.82	-443.25	-5,239.57	5,243.72	0.13	-0.13	-0.02
11,068.00	89.20	268.39	6,051.06	-445.67	-5,334.53	5,338.70	0.34	-0.12	-0.32
11,164.00	89.55	268.67	6,052.10	-448.13	-5,430.49	5,434.68	0.47	0.36	0.29
11,260.00	89.84	268.14	6,052.61	-450.80	-5,526.45	5,530.66	0.63	0.30	-0.55
11,356.00	90.68	268.21	6,052.18	-453.86	-5,622.40	5,626.64	0.88	0.88	0.07
11,451.00	91.13	268.61	6,050.68	-456.49	-5,717.35	5,721.61	0.63	0.47	0.42
11,480.66	91.05	268.47	6,050.11	-457.25	-5,747.00	5,751.26	0.52	-0.26	-0.46
Cross @ 11480.66' MD									
11,545.00	90.89	268.18	6,049.02	-459.13	-5,811.30	5,815.58	0.52	-0.26	-0.46
11,640.00	90.29	267.41	6,048.04	-462.78	-5,906.22	5,910.54	1.03	-0.63	-0.81
11,735.00	90.44	267.43	6,047.44	-467.06	-6,001.13	6,005.48	0.16	0.16	0.02
11,829.00	90.41	267.46	6,046.74	-471.25	-6,095.03	6,099.42	0.05	-0.03	0.03
11,925.00	91.74	269.37	6,044.94	-473.90	-6,190.97	6,195.38	2.42	1.39	1.99
12,019.00	92.28	270.45	6,041.64	-474.05	-6,284.91	6,289.32	1.28	0.57	1.15
12,114.00	90.58	270.58	6,039.27	-473.20	-6,379.87	6,384.27	1.79	-1.79	0.14
12,210.00	90.59	271.27	6,038.29	-471.65	-6,475.86	6,480.23	0.72	0.01	0.72
12,305.00	89.16	270.11	6,038.50	-470.50	-6,570.84	6,575.20	1.94	-1.51	-1.22
12,400.00	89.71	270.87	6,039.44	-469.69	-6,665.84	6,670.18	0.99	0.58	0.80

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-2421C
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 4518.00usft (Cade 23)
Site:	Sec 04-T04N-R61W	MD Reference:	KB @ 4518.00usft (Cade 23)
Well:	RSU Anschutz Fed 4-61-05-2421C	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)
12,496.00	87.44	268.91	6,041.82	-469.87	-6,761.79	6,766.13	3.12	-2.36	-2.04
12,591.00	88.94	269.61	6,044.82	-471.10	-6,856.74	6,861.08	1.74	1.58	0.74
12,686.00	89.34	269.32	6,046.25	-471.99	-6,951.72	6,956.07	0.52	0.42	-0.31
12,781.00	89.53	268.89	6,047.19	-473.47	-7,046.70	7,051.07	0.49	0.20	-0.45
12,876.00	88.79	268.74	6,048.58	-475.44	-7,141.67	7,146.05	0.79	-0.78	-0.16
12,972.00	87.84	268.63	6,051.40	-477.64	-7,237.61	7,242.00	1.00	-0.99	-0.11
13,067.00	89.86	269.62	6,053.31	-479.09	-7,332.57	7,336.97	2.37	2.13	1.04
13,163.00	88.29	268.49	6,054.86	-480.67	-7,428.54	7,432.95	2.01	-1.64	-1.18
13,259.00	89.03	270.94	6,057.10	-481.15	-7,524.50	7,528.92	2.67	0.77	2.55
13,355.00	90.87	271.34	6,057.19	-479.24	-7,620.48	7,624.87	1.96	1.92	0.42
13,450.00	90.80	271.46	6,055.80	-476.92	-7,715.44	7,719.80	0.15	-0.07	0.13
13,545.00	91.11	271.41	6,054.22	-474.54	-7,810.40	7,814.73	0.33	0.33	-0.05
13,641.00	89.96	271.81	6,053.32	-471.84	-7,906.35	7,910.66	1.27	-1.20	0.42
13,733.00	89.74	272.70	6,053.56	-468.22	-7,998.28	8,002.54	1.00	-0.24	0.97
13,825.00	90.46	270.23	6,053.40	-465.87	-8,090.24	8,094.48	2.80	0.78	-2.68
13,917.00	90.78	270.14	6,052.41	-465.57	-8,182.24	8,186.46	0.36	0.35	-0.10
14,009.00	91.27	270.08	6,050.76	-465.40	-8,274.22	8,278.44	0.54	0.53	-0.07
14,101.00	90.18	269.35	6,049.60	-465.85	-8,366.21	8,370.43	1.43	-1.18	-0.79
14,193.00	89.32	268.16	6,050.00	-467.85	-8,458.19	8,462.42	1.60	-0.93	-1.29
14,285.00	88.92	267.40	6,051.41	-471.42	-8,550.11	8,554.37	0.93	-0.43	-0.83
14,377.00	89.18	268.25	6,052.94	-474.91	-8,642.03	8,646.32	0.97	0.28	0.92
14,468.00	88.61	268.34	6,054.69	-477.61	-8,732.97	8,737.29	0.63	-0.63	0.10
14,560.00	87.66	267.36	6,057.69	-481.06	-8,824.85	8,829.20	1.48	-1.03	-1.07
14,653.00	88.38	268.57	6,060.90	-484.36	-8,917.74	8,922.11	1.51	0.77	1.30
14,745.00	88.20	268.20	6,063.65	-486.95	-9,009.66	9,014.06	0.45	-0.20	-0.40
14,837.00	90.38	269.41	6,064.79	-488.87	-9,101.62	9,106.04	2.71	2.37	1.32
14,929.00	90.67	269.53	6,063.94	-489.72	-9,193.62	9,198.03	0.34	0.32	0.13
15,021.00	90.99	269.78	6,062.61	-490.28	-9,285.61	9,290.02	0.44	0.35	0.27
15,116.00	90.43	269.36	6,061.43	-490.99	-9,380.59	9,385.02	0.74	-0.59	-0.44
15,212.00	90.55	269.68	6,060.61	-491.80	-9,476.59	9,481.01	0.36	0.13	0.33
15,308.00	90.55	269.11	6,059.69	-492.81	-9,572.58	9,577.01	0.59	0.00	-0.59
15,404.00	90.73	269.48	6,058.62	-493.99	-9,668.56	9,673.00	0.43	0.19	0.39
15,500.00	90.12	268.32	6,057.91	-495.83	-9,764.54	9,768.99	1.37	-0.64	-1.21
15,595.00	89.57	267.80	6,058.16	-499.05	-9,859.49	9,863.96	0.80	-0.58	-0.55
15,690.00	89.71	268.25	6,058.76	-502.32	-9,954.43	9,958.93	0.50	0.15	0.47
15,785.00	89.59	270.35	6,059.34	-503.48	-10,049.41	10,053.93	2.21	-0.13	2.21
15,881.00	88.81	269.91	6,060.68	-503.27	-10,145.40	10,149.91	0.93	-0.81	-0.46
15,977.00	89.08	270.34	6,062.45	-503.06	-10,241.39	10,245.88	0.53	0.28	0.45
16,071.00	88.71	270.39	6,064.26	-502.46	-10,335.37	10,339.85	0.40	-0.39	0.05
16,167.00	88.07	269.96	6,066.96	-502.16	-10,431.33	10,435.81	0.80	-0.67	-0.45
16,262.00	89.30	269.39	6,069.14	-502.70	-10,526.30	10,530.78	1.43	1.29	-0.60
16,358.00	89.32	269.94	6,070.29	-503.26	-10,622.29	10,626.77	0.57	0.02	0.57
16,454.00	89.66	270.12	6,071.15	-503.21	-10,718.29	10,722.76	0.40	0.35	0.19

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-2421C
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 4518.00usft (Cade 23)
Site:	Sec 04-T04N-R61W	MD Reference:	KB @ 4518.00usft (Cade 23)
Well:	RSU Anschutz Fed 4-61-05-2421C	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)
16,550.00	90.21	270.51	6,071.26	-502.69	-10,814.28	10,818.75	0.70	0.57	0.41
16,646.00	89.76	269.56	6,071.28	-502.63	-10,910.28	10,914.74	1.09	-0.47	-0.99
16,741.00	89.52	268.69	6,071.88	-504.08	-11,005.27	11,009.74	0.95	-0.25	-0.92
16,837.00	89.07	267.50	6,073.06	-507.27	-11,101.21	11,105.70	1.33	-0.47	-1.24
16,855.81	89.08	267.87	6,073.36	-508.03	-11,120.00	11,124.50	1.96	0.06	1.96
Cross @ 16855.81' MD									
16,933.00	89.13	269.38	6,074.57	-509.88	-11,197.15	11,201.67	1.96	0.06	1.96
17,029.00	89.32	269.23	6,075.87	-511.05	-11,293.14	11,297.66	0.25	0.20	-0.16
17,125.00	89.33	268.39	6,077.00	-513.04	-11,389.11	11,393.65	0.88	0.01	-0.88
17,221.00	90.01	269.39	6,077.55	-514.90	-11,485.09	11,489.64	1.26	0.71	1.04
17,316.00	90.97	269.44	6,076.74	-515.87	-11,580.08	11,584.64	1.01	1.01	0.05
17,411.00	91.48	268.68	6,074.71	-517.43	-11,675.04	11,679.61	0.96	0.54	-0.80
17,506.00	90.88	269.78	6,072.75	-518.70	-11,770.01	11,774.59	1.32	-0.63	1.16
17,601.00	91.92	269.73	6,070.43	-519.11	-11,864.98	11,869.56	1.10	1.09	-0.05
17,697.00	90.24	269.87	6,068.62	-519.45	-11,960.96	11,965.54	1.76	-1.75	0.15
17,793.00	89.83	269.27	6,068.56	-520.17	-12,056.96	12,061.54	0.76	-0.43	-0.63
17,888.00	89.78	268.17	6,068.89	-522.29	-12,151.93	12,156.53	1.16	-0.05	-1.16
17,983.00	89.54	268.81	6,069.45	-524.79	-12,246.90	12,251.51	0.72	-0.25	0.67
18,078.00	89.25	267.93	6,070.45	-527.49	-12,341.85	12,346.49	0.98	-0.31	-0.93
18,172.00	88.39	267.03	6,072.39	-531.62	-12,435.74	12,440.41	1.32	-0.91	-0.96
18,267.00	88.28	268.97	6,075.15	-534.94	-12,530.64	12,535.34	2.04	-0.12	2.04
18,362.00	88.15	269.77	6,078.11	-535.98	-12,625.58	12,630.29	0.85	-0.14	0.84
18,457.00	87.56	268.68	6,081.66	-537.27	-12,720.51	12,725.22	1.30	-0.62	-1.15
18,552.00	88.52	268.94	6,084.91	-539.24	-12,815.43	12,820.16	1.05	1.01	0.27
18,647.00	90.50	269.80	6,085.73	-540.28	-12,910.42	12,915.15	2.27	2.08	0.91
18,742.00	90.90	269.51	6,084.56	-540.85	-13,005.41	13,010.14	0.52	0.42	-0.31
18,837.00	92.79	270.41	6,081.51	-540.92	-13,100.35	13,105.08	2.20	1.99	0.95
18,933.00	93.58	269.77	6,076.17	-540.77	-13,196.20	13,200.93	1.06	0.82	-0.67
19,027.00	92.04	269.72	6,071.56	-541.19	-13,290.09	13,294.81	1.64	-1.64	-0.05
19,142.00	93.13	269.41	6,066.38	-542.06	-13,404.96	13,409.69	0.99	0.95	-0.27
Last MWD Survey @ 19142' MD									
19,210.00	93.13	269.41	6,062.66	-542.76	-13,472.86	13,477.59	0.00	0.00	0.00
Projection to TD @ 19210' MD 1860' FNL/ 2352.5' FEL									

Survey Report

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well RSU Anschutz Fed 4-61-05-2421C
Project:	Weld County, CO (NAD83)	TVD Reference:	KB @ 4518.00usft (Cade 23)
Site:	Sec 04-T04N-R61W	MD Reference:	KB @ 4518.00usft (Cade 23)
Well:	RSU Anschutz Fed 4-61-05-2421C	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 @ 5799.7 - actual wellpath misses target center by 0.28usft at 5799.77usft MD (5758.59 TVD, -395.05 N, -163.70 E) - Point	0.00	0.00	5,758.55	-394.78	-163.76	1,371,022.01	3,355,428.25	40.344841	-104.224818
Cross @ 6117.31' MD - actual wellpath hits target center - Point	0.00	0.00	5,973.12	-392.40	-392.00	1,371,021.09	3,355,200.00	40.344848	-104.225637
70° Inclination @ 6161.8 - actual wellpath misses target center by 0.01usft at 6161.86usft MD (5991.11 TVD, -391.36 N, -432.71 E) - Point	0.00	0.00	5,991.11	-391.35	-432.71	1,371,021.56	3,355,159.28	40.344851	-104.225783
Cross @ 11480.66' MD - actual wellpath hits target center - Point	0.00	0.00	6,050.11	-457.25	-5,747.00	1,370,879.21	3,349,846.48	40.344668	-104.244848
Cross @ 16855.81' MD - actual wellpath hits target center - Point	0.00	0.00	6,073.36	-508.03	-11,120.00	1,370,751.14	3,344,474.77	40.344524	-104.264124

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
775.00	774.17	-23.84	-5.96	Tie into Surface Surveys	
886.00	884.77	-32.90	-8.27	First MWD Survey @ 886' MD	
5,799.77	5,758.59	-395.05	-163.70	30° Inclination @ 5799.77' MD	
6,117.31	5,973.12	-392.40	-392.00	Cross @ 6117.31' MD	
6,161.86	5,991.11	-391.36	-432.71	70° Inclination @ 6161.86' MD	
11,480.66	6,050.11	-457.25	-5,747.00	Cross @ 11480.66' MD	
16,855.81	6,073.36	-508.03	-11,120.00	Cross @ 16855.81' MD	
19,142.00	6,066.38	-542.06	-13,404.96	Last MWD Survey @ 19142' MD	
19,210.00	6,062.66	-542.76	-13,472.86	Projection to TD @ 19210' MD 1860' FNL/ 2352.5' FEL	

Checked By: _____	Approved By: _____	Date: _____
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