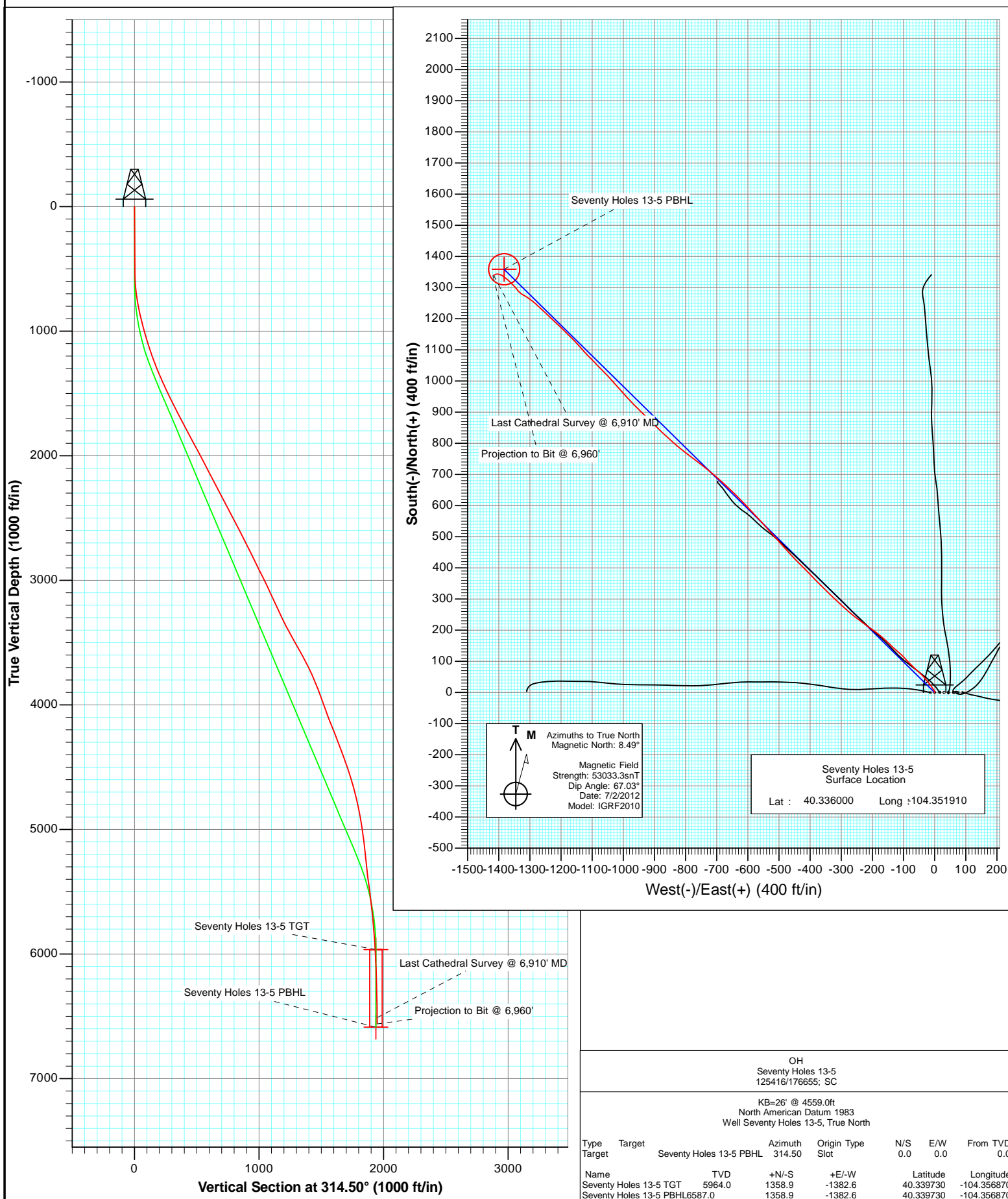


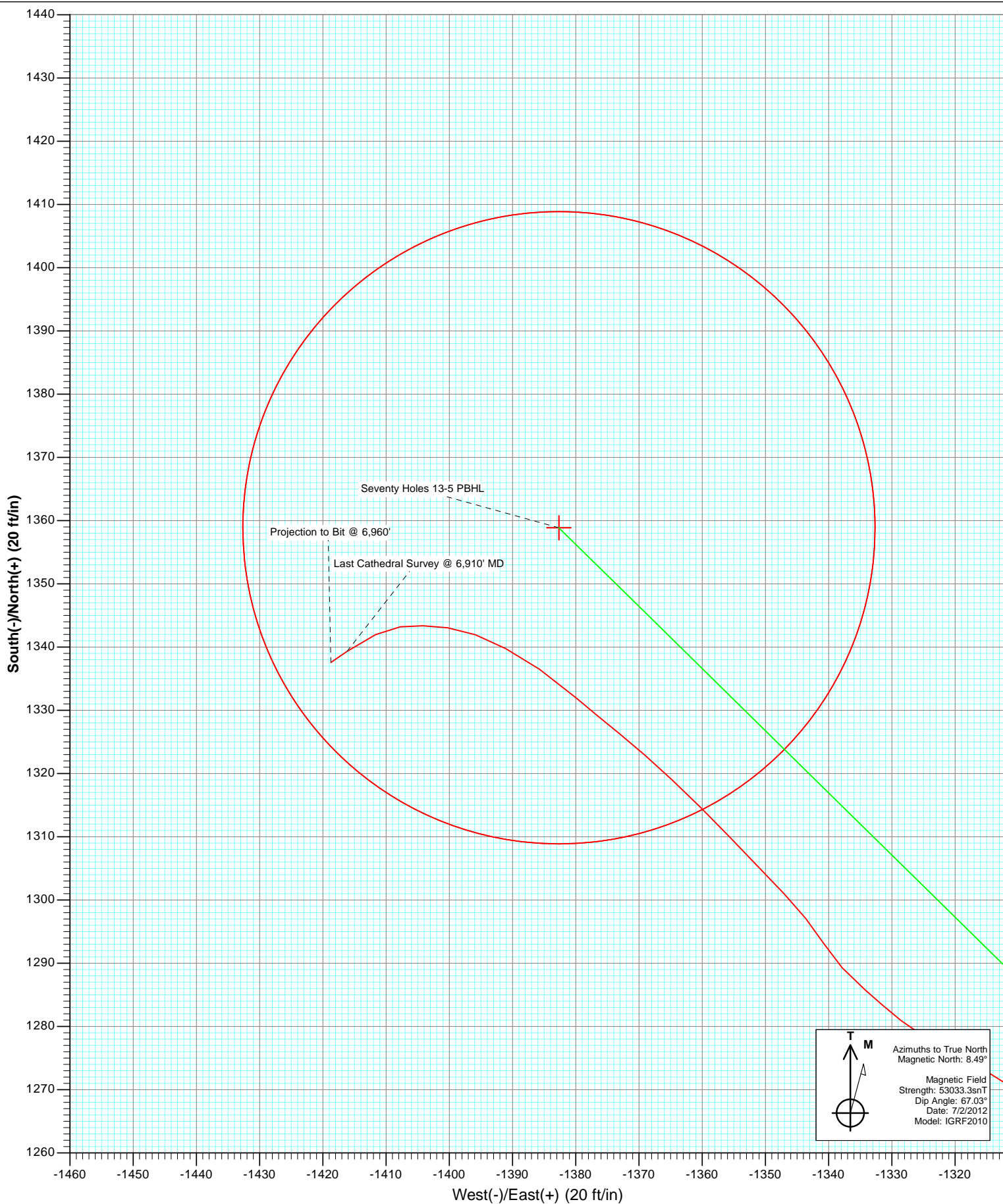


Project: Weld County
 Site: Seventy Holes 24-5 Pad
 Well: Seventy Holes 13-5
 Wellbore: OH
 Plan: AB FINAL





Project: Weld County
Site: Seventy Holes 24-5 Pad
Well: Seventy Holes 13-5
Wellbore: OH
Plan: AB FINAL



Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes 13-5
Project:	Weld County	TVD Reference:	KB=26' @ 4559.0ft
Site:	Seventy Holes 24-5 Pad	MD Reference:	KB=26' @ 4559.0ft
Well:	Seventy Holes 13-5	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	USA EDM 5000 Multi Users DB

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

Site		Seventy Holes 24-5 Pad			
Site Position:		Northing:	1,367,320.25 ft	Latitude:	40.336000
From:	Lat/Long	Easting:	3,320,060.09 ft	Longitude:	-104.351890
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well		Seventy Holes 13-5				
Well Position	+N/-S	0.0 ft	Northing:	1,367,320.14 ft	Latitude:	40.336000
	+E/-W	0.0 ft	Easting:	3,320,054.52 ft	Longitude:	-104.351910
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,533.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/2/2012	8.49	67.03	53,033

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	314.50	

Survey Program	Date	7/3/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
526.0	6,960.0	Survey #1 (OH)	MWD	Geolink MWD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
526.0	0.80	349.50	526.0	3.6	-0.7	3.0	0.15	0.15		
620.0	3.90	329.30	619.9	7.0	-2.4	6.6	3.36	3.30		
714.0	8.00	326.80	713.4	15.2	-7.6	16.1	4.37	4.36		
809.0	11.10	322.50	807.0	28.0	-16.8	31.6	3.35	3.26		
904.0	14.20	319.20	899.7	44.1	-30.0	52.3	3.35	3.26		
1,031.0	15.60	311.50	1,022.5	67.2	-53.0	84.9	1.91	1.10		
1,125.0	17.60	315.00	1,112.5	85.6	-72.5	111.7	2.38	2.13		
1,220.0	19.70	316.80	1,202.6	107.5	-93.6	142.1	2.29	2.21		
1,314.0	22.10	310.90	1,290.4	130.6	-117.8	175.6	3.39	2.55		
1,408.0	23.70	314.40	1,377.0	155.4	-144.7	212.1	2.23	1.70		
1,501.0	25.20	309.70	1,461.6	181.1	-173.3	250.6	2.64	1.61		
1,596.0	26.60	305.30	1,547.1	206.3	-206.2	291.7	2.50	1.47		

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes 13-5
Project:	Weld County	TVD Reference:	KB=26' @ 4559.0ft
Site:	Seventy Holes 24-5 Pad	MD Reference:	KB=26' @ 4559.0ft
Well:	Seventy Holes 13-5	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,689.0	26.70	306.40	1,630.2	230.8	-240.0	332.9	0.54	0.11	
1,783.0	27.90	310.50	1,713.7	257.6	-273.8	375.8	2.37	1.28	
1,877.0	28.80	313.70	1,796.5	287.5	-306.8	420.4	1.88	0.96	
1,972.0	27.20	312.90	1,880.4	318.1	-339.3	465.0	1.73	-1.68	
2,066.0	28.70	316.10	1,963.4	349.0	-370.7	509.0	2.26	1.60	
2,160.0	27.20	315.30	2,046.4	380.5	-401.5	553.1	1.64	-1.60	
2,255.0	27.10	315.30	2,131.0	411.3	-431.9	596.4	0.11	-0.11	
2,349.0	27.80	317.40	2,214.4	442.7	-461.8	639.7	1.27	0.74	
2,443.0	28.10	317.00	2,297.4	475.0	-491.8	683.7	0.38	0.32	
2,537.0	28.60	319.20	2,380.1	508.3	-521.6	728.3	1.23	0.53	
2,631.0	27.80	317.20	2,463.0	541.4	-551.2	772.6	1.32	-0.85	
2,725.0	26.30	318.10	2,546.7	573.0	-580.0	815.3	1.65	-1.60	
2,820.0	28.00	315.60	2,631.2	604.6	-609.6	858.6	2.15	1.79	
2,915.0	25.90	314.70	2,715.9	635.1	-640.0	901.6	2.25	-2.21	
3,009.0	26.40	312.90	2,800.3	663.8	-669.9	943.0	1.00	0.53	
3,104.0	26.50	311.20	2,885.3	692.1	-701.3	985.3	0.80	0.11	
3,198.0	26.80	308.70	2,969.4	719.2	-733.6	1,027.3	1.23	0.32	
3,292.0	25.70	307.10	3,053.7	744.7	-766.4	1,068.6	1.39	-1.17	
3,387.0	25.00	306.90	3,139.5	769.2	-798.9	1,108.9	0.74	-0.74	
3,482.0	24.50	310.60	3,225.8	794.1	-829.9	1,148.5	1.71	-0.53	
3,576.0	25.40	312.90	3,311.0	820.5	-859.5	1,188.1	1.41	0.96	
3,670.0	28.80	314.50	3,394.7	850.1	-890.4	1,230.9	3.70	3.62	
3,765.0	29.70	314.10	3,477.6	882.5	-923.6	1,277.3	0.97	0.95	
3,861.0	29.30	314.80	3,561.1	915.6	-957.4	1,324.6	0.55	-0.42	
3,954.0	27.20	318.10	3,643.1	947.4	-987.7	1,368.6	2.81	-2.26	
4,049.0	25.40	318.10	3,728.2	978.8	-1,015.8	1,410.6	1.89	-1.89	
4,143.0	22.70	317.70	3,814.1	1,007.2	-1,041.5	1,448.8	2.88	-2.87	
4,236.0	21.10	314.40	3,900.3	1,032.2	-1,065.6	1,483.5	2.17	-1.72	
4,330.0	19.20	317.20	3,988.6	1,055.4	-1,088.2	1,515.8	2.27	-2.02	
4,425.0	20.30	314.60	4,078.0	1,078.4	-1,110.5	1,547.9	1.48	1.16	
4,519.0	21.80	319.60	4,165.7	1,103.1	-1,133.4	1,581.6	2.49	1.60	
4,613.0	21.90	314.90	4,253.0	1,128.8	-1,157.2	1,616.5	1.86	0.11	
4,707.0	20.00	316.00	4,340.8	1,152.8	-1,180.7	1,650.1	2.06	-2.02	
4,802.0	20.60	313.00	4,429.9	1,175.8	-1,204.3	1,683.1	1.26	0.63	
4,896.0	18.40	312.60	4,518.5	1,197.2	-1,227.3	1,714.5	2.34	-2.34	
4,990.0	16.10	313.90	4,608.2	1,216.2	-1,247.6	1,742.3	2.48	-2.45	
5,084.0	15.40	313.00	4,698.7	1,233.8	-1,266.1	1,767.8	0.79	-0.74	
5,178.0	12.90	311.20	4,789.9	1,249.2	-1,283.1	1,790.8	2.70	-2.66	
5,272.0	10.30	306.50	4,881.9	1,261.1	-1,297.8	1,809.6	2.94	-2.77	
5,366.0	8.50	303.50	4,974.7	1,270.0	-1,310.3	1,824.7	1.98	-1.91	
5,460.0	7.60	297.20	5,067.7	1,276.6	-1,321.7	1,837.5	1.34	-0.96	
5,555.0	7.00	312.60	5,162.0	1,283.4	-1,331.5	1,849.3	2.15	-0.63	
5,586.0	6.30	309.70	5,192.8	1,285.8	-1,334.2	1,852.8	2.50	-2.26	
5,680.0	5.80	327.30	5,286.2	1,293.1	-1,340.7	1,862.6	2.03	-0.53	
5,775.0	6.50	316.20	5,380.7	1,301.0	-1,347.1	1,872.7	1.45	0.74	
5,870.0	8.50	316.20	5,474.9	1,310.0	-1,355.6	1,885.1	2.11	2.11	
5,965.0	7.20	313.10	5,569.0	1,319.1	-1,364.8	1,898.0	1.44	-1.37	
6,060.0	6.00	308.90	5,663.4	1,326.3	-1,373.1	1,908.9	1.36	-1.26	
6,154.0	4.90	310.40	5,756.9	1,332.0	-1,379.9	1,917.8	1.18	-1.17	
6,249.0	4.00	305.10	5,851.7	1,336.5	-1,385.7	1,925.1	1.04	-0.95	
6,345.0	3.50	297.10	5,947.4	1,339.8	-1,391.1	1,931.2	0.75	-0.52	
6,438.0	3.00	291.30	6,040.3	1,341.9	-1,395.9	1,936.2	0.64	-0.54	
6,531.0	2.60	276.10	6,133.2	1,343.0	-1,400.2	1,940.1	0.90	-0.43	

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes 13-5
Project:	Weld County	TVD Reference:	KB=26' @ 4559.0ft
Site:	Seventy Holes 24-5 Pad	MD Reference:	KB=26' @ 4559.0ft
Well:	Seventy Holes 13-5	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,625.0	2.20	272.90	6,227.1	1,343.4	-1,404.2	1,943.1	0.45	-0.43	
6,719.0	2.20	262.40	6,321.0	1,343.2	-1,407.8	1,945.6	0.43	0.00	
6,814.0	2.80	244.40	6,415.9	1,342.0	-1,411.7	1,947.5	1.03	0.63	
6,910.0	3.50	235.50	6,511.8	1,339.3	-1,416.2	1,948.8	0.89	0.73	Last Cathedral Survey @ 6,910' MD
6,960.0	3.50	235.50	6,561.7	1,337.6	-1,418.7	1,949.4	0.00	0.00	Projection to Bit @ 6,960'

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Seventy Holes 13-5 TG1	0.00	0.00	5,964.0	1,358.9	-1,382.6	1,368,661.01	3,318,654.40	40.339730	-104.356870
- actual wellpath misses target center by 20.9ft at 6361.5ft MD (5964.0 TVD, 1340.2 N, -1392.0 E)									
- Point									
Seventy Holes 13-5 PB+	0.00	0.00	6,587.0	1,358.9	-1,382.6	1,368,661.01	3,318,654.40	40.339730	-104.356870
- actual wellpath misses target center by 48.9ft at 6960.0ft MD (6561.7 TVD, 1337.6 N, -1418.7 E)									
- Circle (radius 50.0)									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
6,910.0	6,511.8	1,339.3	-1,416.2	Last Cathedral Survey @ 6,910' MD	
6,960.0	6,561.7	1,337.6	-1,418.7	Projection to Bit @ 6,960'	

Checked By: _____ Approved By: _____ Date: _____