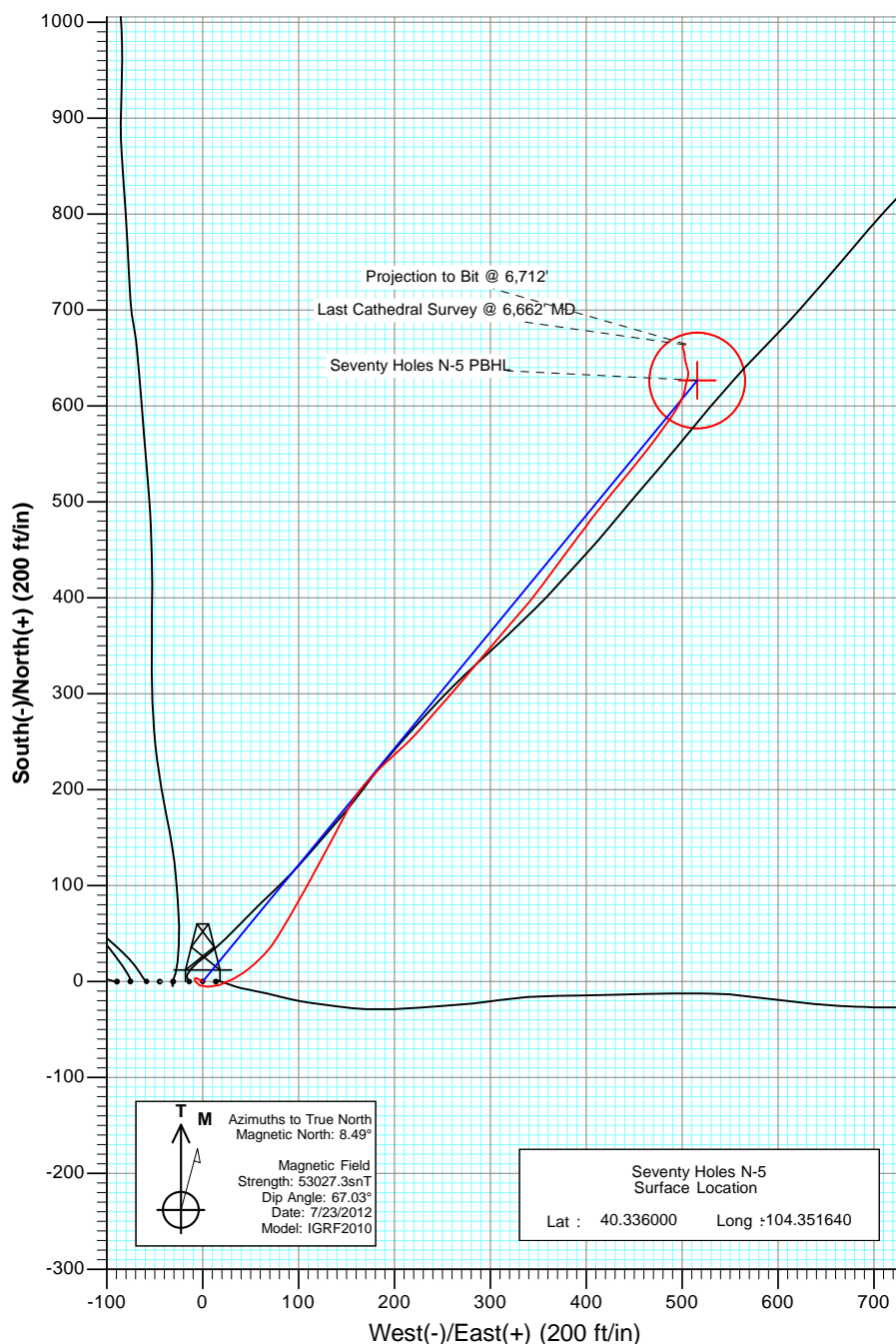
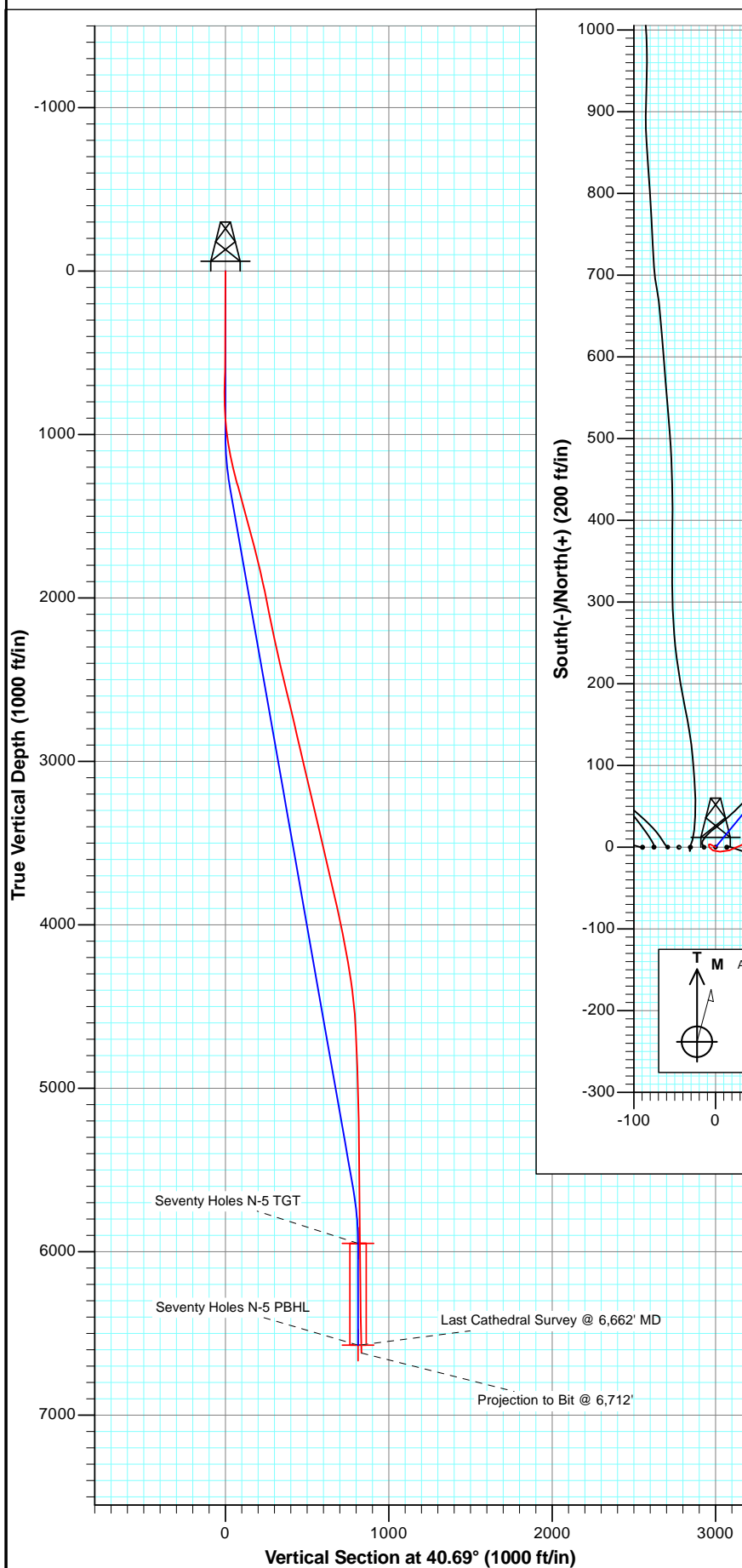




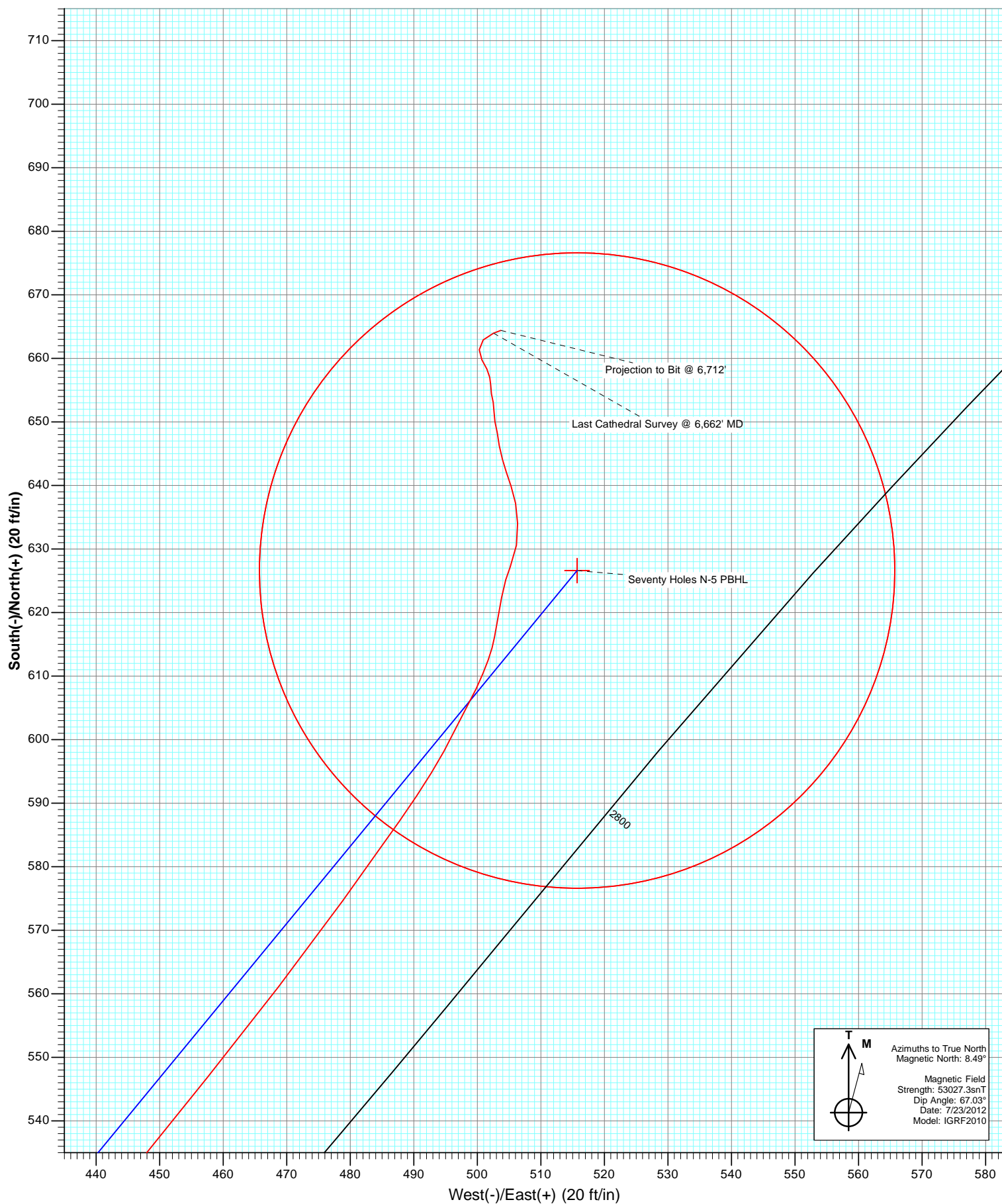
Project: Weld County
Site: Seventy Holes 24-5 Pad
Well: Seventy Holes N-5
Wellbore: OH
Plan: AB FINAL



OH Seventy Holes N-5 125455/177155; SC						
KB=26' @ 4559.0ft North American Datum 1983 Well Seventy Holes N-5, True North						
Type	Target		Azimuth	Origin	Type	N/S
User	No Target (Freehand)		40.69	Slot		0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude
Seventy Holes N-5 TGT		5949.0	626.6	515.7	40.337720	-104.349790
Seventy Holes N-5 PBHL		6572.0	626.6	515.7	40.337720	-104.349790



Project: Weld County
Site: Seventy Holes 24-5 Pad
Well: Seventy Holes N-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 N-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 N-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 N-5					
Well Position	+N/-S	0.0 ft	Northing:	1,367,321.12 ft	Latitude:	40.336000
	+E/-W	0.0 ft	Easting:	3,320,129.78 ft	Longitude:	-104.351640
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	7/23/2012	8.49	67.03	53,027

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	40.69

Survey Program	Date	8/30/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
524.0	6,712.0	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	
524.0	1.60	298.50	523.9	3.5	-6.4	-1.5	0.31	0.31	
619.0	1.30	220.80	618.9	3.3	-8.3	-2.9	1.93	-0.32	
712.0	3.50	154.40	711.8	-0.1	-7.8	-5.1	3.45	2.37	
806.0	4.50	110.80	805.6	-3.9	-3.1	-5.0	3.31	1.06	
900.0	6.20	93.30	899.2	-5.6	5.4	-0.7	2.49	1.81	
996.0	8.30	71.60	994.5	-3.7	17.2	8.4	3.56	2.19	
1,090.0	10.90	62.40	1,087.1	2.6	31.5	22.5	3.20	2.77	
1,184.0	13.00	52.30	1,179.1	13.2	47.8	41.1	3.14	2.23	
1,279.0	14.90	42.60	1,271.3	28.7	64.5	63.8	3.17	2.00	
1,373.0	16.00	31.10	1,361.9	48.7	79.4	88.7	3.46	1.17	
1,468.0	15.20	30.40	1,453.4	70.7	92.4	113.8	0.87	-0.84	
1,562.0	15.20	28.70	1,544.2	92.1	104.6	138.0	0.47	0.00	

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes N-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 N-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
1,657.0	15.20	28.70	1,635.8	113.9	116.5	162.4	0.00	0.00	
1,752.0	14.40	28.50	1,727.7	135.3	128.2	186.1	0.84	-0.84	
1,845.0	13.90	27.40	1,817.9	155.3	138.8	208.3	0.61	-0.54	
1,940.0	13.10	26.80	1,910.2	175.1	148.9	229.8	0.85	-0.84	
2,034.0	11.90	34.00	2,002.0	192.6	159.1	249.8	2.09	-1.28	
2,128.0	10.70	41.60	2,094.2	207.2	170.4	268.2	2.03	-1.28	
2,223.0	11.20	44.90	2,187.5	220.3	182.7	286.2	0.84	0.53	
2,317.0	12.50	48.00	2,279.5	233.6	196.7	305.4	1.54	1.38	
2,411.0	13.50	46.40	2,371.0	248.0	212.2	326.4	1.13	1.06	
2,506.0	13.60	41.20	2,463.4	264.0	227.6	348.6	1.29	0.11	
2,600.0	13.30	41.20	2,554.8	280.5	242.0	370.5	0.32	-0.32	
2,695.0	13.40	41.20	2,647.3	297.0	256.5	392.4	0.11	0.11	
2,789.0	13.80	40.60	2,738.6	313.7	270.9	414.5	0.45	0.43	
2,883.0	12.30	39.60	2,830.2	329.9	284.6	435.7	1.61	-1.60	
2,978.0	13.20	39.10	2,922.8	346.1	297.9	456.7	0.95	0.95	
3,073.0	13.30	40.90	3,015.3	362.8	311.9	478.4	0.45	0.11	
3,168.0	13.70	42.70	3,107.7	379.3	326.7	500.6	0.61	0.42	
3,263.0	13.60	37.90	3,200.0	396.4	341.2	523.0	1.20	-0.11	
3,358.0	13.00	36.70	3,292.5	413.8	354.4	544.8	0.70	-0.63	
3,452.0	12.70	36.80	3,384.1	430.5	366.9	565.7	0.32	-0.32	
3,547.0	13.10	36.20	3,476.7	447.6	379.6	586.8	0.44	0.42	
3,643.0	13.50	37.30	3,570.1	465.3	392.8	608.9	0.49	0.42	
3,738.0	12.50	35.80	3,662.7	482.4	405.5	630.2	1.11	-1.05	
3,833.0	13.10	40.70	3,755.3	498.9	418.5	651.2	1.31	0.63	
3,928.0	13.40	38.70	3,847.8	515.7	432.4	673.0	0.58	0.32	
4,022.0	12.20	39.10	3,939.5	531.9	445.5	693.8	1.28	-1.28	
4,117.0	11.10	38.40	4,032.5	546.9	457.5	712.9	1.17	-1.16	
4,213.0	10.70	37.80	4,126.8	561.1	468.7	731.1	0.43	-0.42	
4,307.0	9.90	35.70	4,219.3	574.6	478.8	747.8	0.94	-0.85	
4,401.0	9.10	35.20	4,312.0	587.2	487.8	763.3	0.86	-0.85	
4,495.0	6.80	28.80	4,405.1	598.2	494.8	776.1	2.62	-2.45	
4,590.0	6.60	25.50	4,499.4	608.0	499.8	786.9	0.46	-0.21	
4,685.0	3.90	9.50	4,594.0	616.2	502.7	794.9	3.21	-2.84	
4,778.0	3.90	11.10	4,686.8	622.4	503.8	800.4	0.12	0.00	
4,872.0	2.20	24.30	4,780.7	627.2	505.2	804.9	1.95	-1.81	
4,966.0	2.20	7.60	4,874.6	630.6	506.2	808.2	0.68	0.00	
5,060.0	2.00	357.40	4,968.5	634.0	506.3	810.9	0.45	-0.21	
5,154.0	1.90	351.40	5,062.5	637.2	506.0	813.1	0.24	-0.11	
5,249.0	1.50	336.90	5,157.4	639.9	505.3	814.6	0.62	-0.42	
5,343.0	1.30	347.50	5,251.4	642.1	504.6	815.8	0.35	-0.21	
5,437.0	1.30	338.40	5,345.4	644.1	504.0	817.0	0.22	0.00	
5,531.0	1.40	354.50	5,439.4	646.2	503.5	818.3	0.42	0.11	
5,626.0	1.10	347.30	5,534.3	648.3	503.2	819.6	0.36	-0.32	
5,720.0	1.10	349.00	5,628.3	650.1	502.8	820.7	0.03	0.00	
5,814.0	0.90	0.40	5,722.3	651.7	502.6	821.8	0.30	-0.21	
5,908.0	0.80	349.20	5,816.3	653.1	502.5	822.8	0.21	-0.11	
6,002.0	0.90	347.80	5,910.3	654.4	502.2	823.7	0.11	0.11	
6,096.0	0.80	3.00	6,004.3	655.8	502.1	824.6	0.26	-0.11	
6,190.0	0.70	343.60	6,098.3	657.0	502.0	825.4	0.29	-0.11	
6,285.0	1.00	338.30	6,193.3	658.3	501.5	826.1	0.33	0.32	
6,379.0	1.00	325.50	6,287.3	659.8	500.7	826.7	0.24	0.00	
6,473.0	1.10	2.80	6,381.2	661.3	500.3	827.7	0.72	0.11	
6,662.0	1.40	69.40	6,570.2	664.0	502.6	831.1	0.74	0.16	Last Cathedral Survey @ 6,662' MD

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Seventy Holes N-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 N-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
6,712.0	1.40	69.40	6,620.2	664.4	503.7	832.2	0.00	0.00	Projection to Bit @ 6,712'

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 N-5 PBH	0.00	0.00	6,572.0	626.6	515.7	1,367,954.36	3,320,637.34	40.337720	-104.349790
- actual wellpath misses target center by 39.6ft at 6662.0ft MD (6570.2 TVD, 664.0 N, 502.6 E)									
- Circle (radius 50.0)									
Seventy Holes N-5 TGT	0.00	0.00	5,949.0	626.6	515.7	1,367,954.36	3,320,637.34	40.337720	-104.349790
- actual wellpath misses target center by 31.5ft at 6040.3ft MD (5948.6 TVD, 655.0 N, 502.1 E)									
- Point									

Design Annotations

	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S (ft)	+E/-W (ft)	
	6,662.0	6,570.2	664.0	502.6	Last Cathedral Survey @ 6,662' MD
	6,712.0	6,620.2	664.4	503.7	Projection to Bit @ 6,712'

Checked By: _____ Approved By: _____ Date: _____