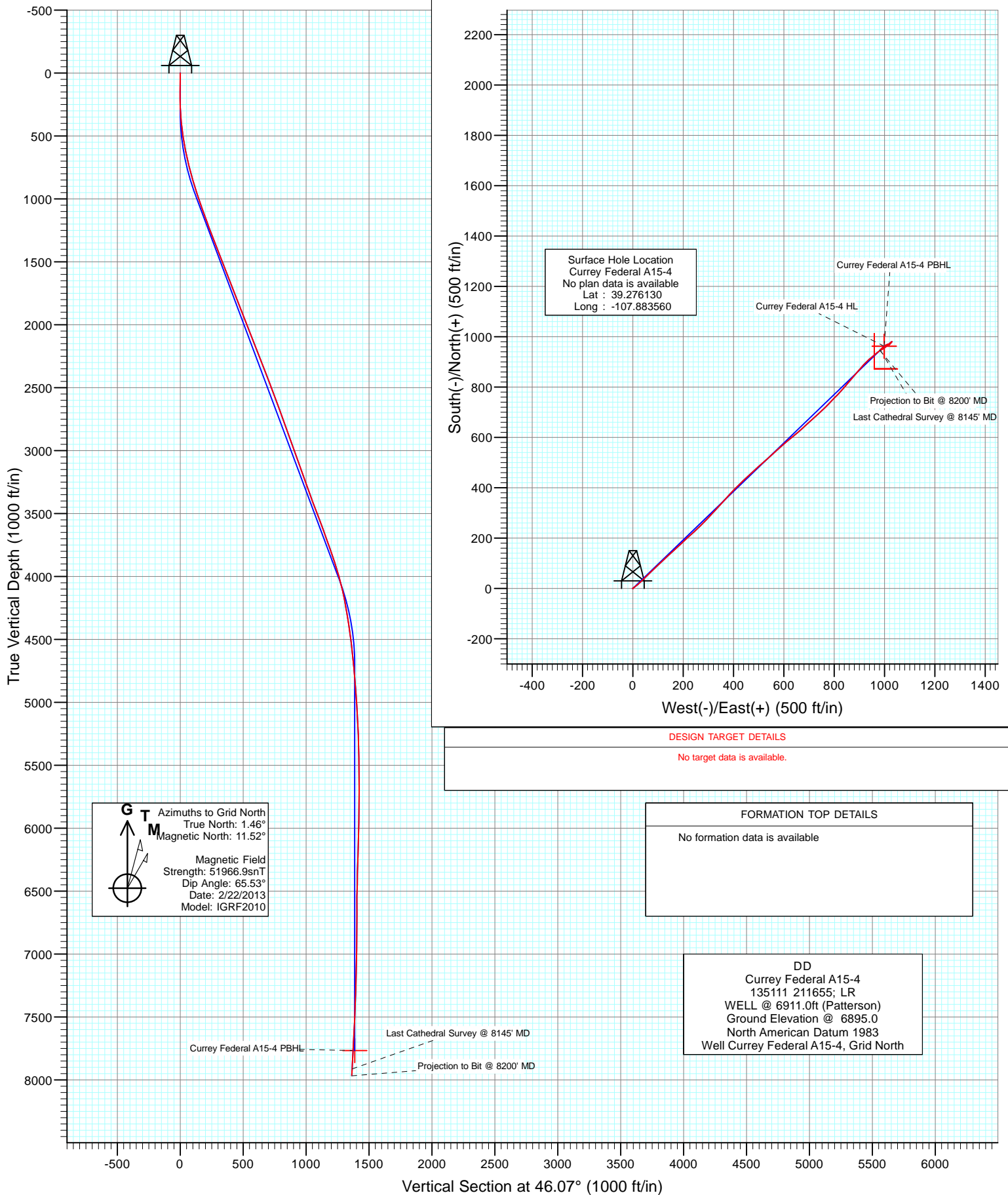


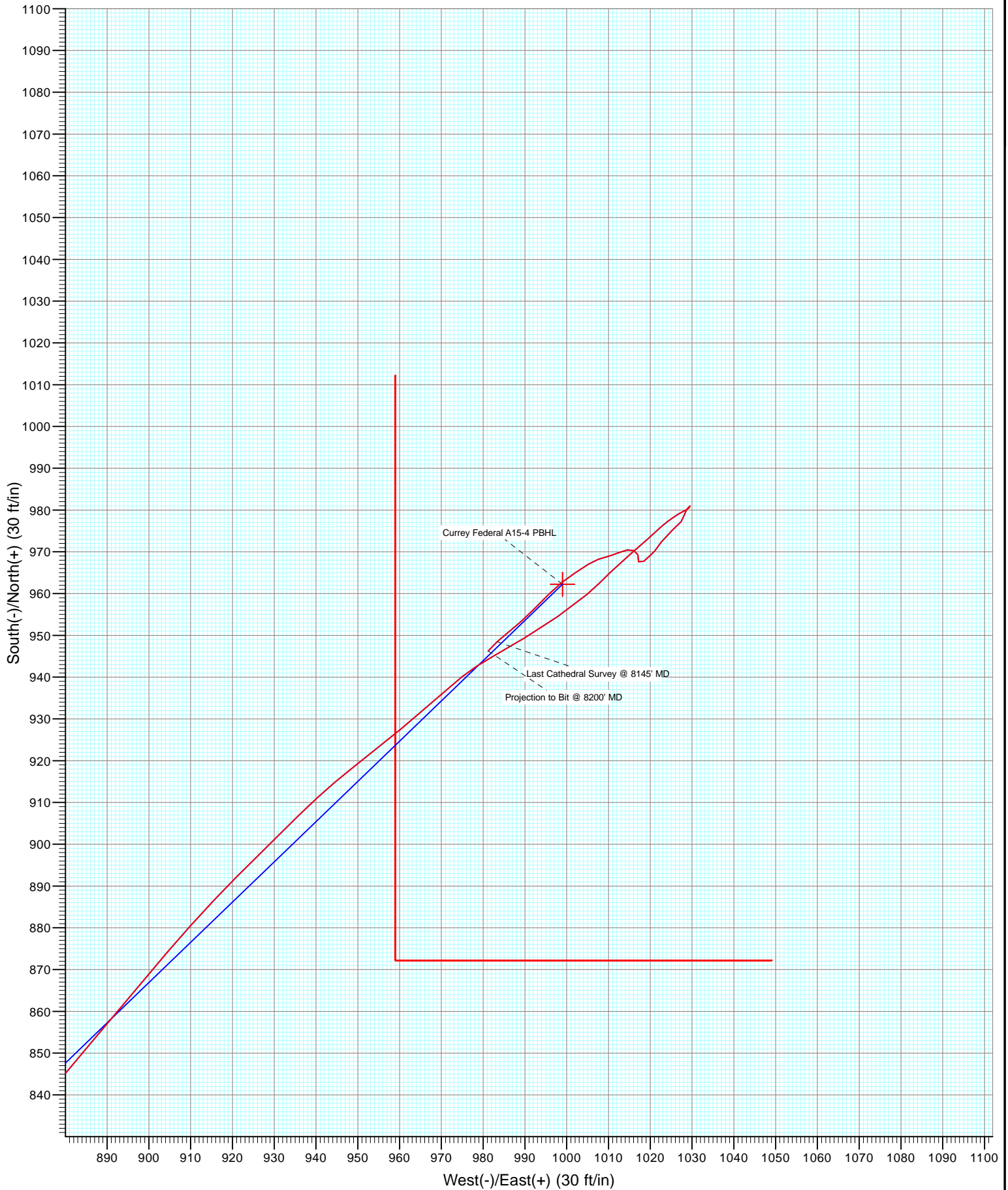


Project: Mesa County, CO  
Site: S16-T9S-R94W  
Well: Currey Federal A15-4  
Wellbore: DD  
Design: DD





Project: Mesa County, CO  
Site: S16-T9S-R94W  
Well: Currey Federal A15-4  
Wellbore: DD  
Design: DD



# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Axia Energy	<b>Local Co-ordinate Reference:</b>	Well Currey Federal A15-4
<b>Project:</b>	Mesa County, CO	<b>TVD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Site:</b>	S16-T9S-R94W	<b>MD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Well:</b>	Currey Federal A15-4	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

<b>Project</b>	Mesa County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Southern Zone		

Site		S16-T9S-R94W			
Site Position:		Northing:	1,958,908.16 ft	Latitude:	39.276130
From:	Lat/Long	Easting:	2,325,117.44 ft	Longitude:	-107.883560
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.46 °

Well	Currey Federal A15-4					
Well Position	+N/-S	0.0 ft	Northing:	1,958,908.15 ft	Latitude:	39.276130
	+E/-W	0.0 ft	Easting:	2,325,117.44 ft	Longitude:	-107.883560
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,895.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2/22/2013	10.06	65.53	51,967

Design	DD				
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	46.07	

<b>Survey Program</b>	<b>Date</b>	3/6/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
146.0	8,200.0	Survey #1 (DD)	MWD	Geolink MWD	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Formations / Comments</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
146.0	0.30	233.30	146.0	-0.2	-0.3	-0.4	0.21	0.21		
176.0	0.00	280.10	176.0	-0.3	-0.4	-0.5	1.00	-1.00		
207.0	0.30	63.40	207.0	-0.2	-0.3	-0.4	0.97	0.97		
237.0	0.70	59.50	237.0	-0.1	-0.1	-0.1	1.34	1.33		
267.0	1.50	52.50	267.0	0.2	0.4	0.4	2.70	2.67		
297.0	2.80	51.20	297.0	0.9	1.3	1.6	4.34	4.33		
328.0	4.10	51.40	327.9	2.1	2.7	3.4	4.19	4.19		
373.0	5.40	51.10	372.8	4.4	5.6	7.1	2.89	2.89		
419.0	6.70	50.90	418.5	7.5	9.4	12.0	2.83	2.83		
464.0	7.90	50.70	463.1	11.1	13.8	17.7	2.67	2.67		
511.0	8.40	51.30	509.7	15.3	19.0	24.3	1.08	1.06		
602.0	10.60	46.10	599.4	25.2	30.2	39.3	2.59	2.42		

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Axia Energy	<b>Local Co-ordinate Reference:</b>	Well Currey Federal A15-4
<b>Project:</b>	Mesa County, CO	<b>TVD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Site:</b>	S16-T9S-R94W	<b>MD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Well:</b>	Currey Federal A15-4	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	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
693.0	12.40	45.40	688.6	37.9	43.2	57.4	1.98	1.98	
784.0	15.10	46.20	777.0	53.0	58.7	79.1	2.97	2.97	
875.0	17.00	45.40	864.4	70.5	76.8	104.2	2.10	2.09	
970.0	18.80	46.00	954.8	90.9	97.7	133.4	1.90	1.89	
1,067.0	18.90	47.30	1,046.6	112.4	120.5	164.7	0.45	0.10	
1,162.0	19.40	48.70	1,136.4	133.3	143.6	195.9	0.71	0.53	
1,258.0	20.70	46.30	1,226.5	155.5	167.9	228.8	1.60	1.35	
1,352.0	20.90	47.10	1,314.4	178.4	192.2	262.2	0.37	0.21	
1,448.0	20.90	47.60	1,404.1	201.6	217.4	296.4	0.19	0.00	
1,543.0	21.20	48.30	1,492.8	224.5	242.7	330.5	0.41	0.32	
1,638.0	21.80	46.10	1,581.1	248.1	268.2	365.3	1.06	0.63	
1,733.0	22.10	42.30	1,669.3	273.6	293.0	400.8	1.53	0.32	
1,828.0	21.30	44.00	1,757.5	299.2	317.0	435.9	1.07	-0.84	
1,923.0	21.20	42.30	1,846.1	324.3	340.5	470.2	0.66	-0.11	
2,018.0	20.60	41.10	1,934.8	349.6	363.1	504.0	0.78	-0.63	
2,113.0	21.10	44.00	2,023.6	374.5	385.9	537.8	1.21	0.53	
2,208.0	22.00	43.50	2,112.0	399.7	410.1	572.6	0.97	0.95	
2,303.0	21.80	46.50	2,200.1	424.8	435.1	608.1	1.20	-0.21	
2,398.0	21.00	46.80	2,288.6	448.6	460.3	642.7	0.85	-0.84	
2,494.0	21.40	48.90	2,378.1	471.9	486.1	677.4	0.89	0.42	
2,589.0	21.20	48.10	2,466.6	494.7	511.9	711.9	0.37	-0.21	
2,684.0	20.10	48.80	2,555.5	516.9	537.0	745.4	1.19	-1.16	
2,779.0	20.20	47.30	2,644.7	538.8	561.3	778.1	0.55	0.11	
2,873.0	19.60	48.00	2,733.0	560.4	584.9	810.0	0.69	-0.64	
2,969.0	19.60	49.90	2,823.5	581.5	609.2	842.2	0.66	0.00	
3,064.0	20.40	50.40	2,912.8	602.3	634.2	874.6	0.86	0.84	
3,159.0	20.10	49.60	3,001.9	623.5	659.4	907.4	0.43	-0.32	
3,254.0	19.20	48.00	3,091.3	644.5	683.4	939.3	1.10	-0.95	
3,349.0	20.40	47.30	3,180.7	666.2	707.2	971.5	1.29	1.26	
3,444.0	19.20	47.30	3,270.1	688.0	730.8	1,003.7	1.26	-1.26	
3,539.0	19.70	47.10	3,359.7	709.5	754.0	1,035.3	0.53	0.53	
3,634.0	21.20	43.40	3,448.7	732.9	777.6	1,068.5	2.08	1.58	
3,729.0	20.60	45.60	3,537.4	757.1	801.3	1,102.3	1.04	-0.63	
3,824.0	20.30	41.60	3,626.5	781.1	824.2	1,135.5	1.50	-0.32	
3,920.0	19.40	41.60	3,716.8	805.4	845.8	1,168.0	0.94	-0.94	
4,015.0	19.20	40.50	3,806.4	829.1	866.5	1,199.2	0.44	-0.21	
4,111.0	18.50	39.80	3,897.3	852.8	886.5	1,230.1	0.77	-0.73	
4,206.0	15.90	40.50	3,988.0	874.3	904.6	1,258.0	2.75	-2.74	
4,301.0	13.70	44.90	4,079.9	892.2	921.0	1,282.2	2.60	-2.32	
4,396.0	11.60	45.80	4,172.6	906.8	935.8	1,303.0	2.22	-2.21	
4,491.0	9.30	51.70	4,266.0	918.2	948.6	1,320.2	2.67	-2.42	
4,587.0	8.70	51.00	4,360.8	927.6	960.4	1,335.2	0.64	-0.62	
4,682.0	8.80	47.90	4,454.7	937.0	971.3	1,349.6	0.51	0.11	
4,777.0	6.50	61.50	4,548.8	944.4	981.5	1,362.1	3.07	-2.42	
4,872.0	5.70	57.50	4,643.3	949.5	990.2	1,371.9	0.95	-0.84	
4,967.0	5.30	56.60	4,737.9	954.5	997.8	1,380.8	0.43	-0.42	
5,063.0	5.10	49.30	4,833.5	959.7	1,004.7	1,389.4	0.72	-0.21	
5,158.0	4.10	43.30	4,928.2	964.9	1,010.3	1,397.0	1.17	-1.05	
5,254.0	3.50	53.30	5,024.0	969.2	1,015.0	1,403.4	0.93	-0.62	
5,348.0	3.30	44.10	5,117.8	972.8	1,019.2	1,408.9	0.62	-0.21	
5,443.0	2.50	51.80	5,212.7	976.1	1,022.7	1,413.7	0.93	-0.84	
5,539.0	1.30	53.60	5,308.6	978.0	1,025.2	1,416.9	1.25	-1.25	
5,633.0	1.20	59.80	5,402.6	979.2	1,026.9	1,418.9	0.18	-0.11	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Axia Energy	<b>Local Co-ordinate Reference:</b>	Well Currey Federal A15-4
<b>Project:</b>	Mesa County, CO	<b>TVD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Site:</b>	S16-T9S-R94W	<b>MD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Well:</b>	Currey Federal A15-4	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	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
5,728.0	0.80	66.30	5,497.6	979.9	1,028.4	1,420.5	0.44	-0.42	
5,823.0	0.50	43.60	5,592.6	980.5	1,029.3	1,421.5	0.41	-0.32	
5,918.0	0.20	341.90	5,687.6	980.9	1,029.5	1,422.0	0.47	-0.32	
6,014.0	0.80	215.00	5,783.6	980.6	1,029.1	1,421.4	0.97	0.62	
6,109.0	0.40	213.50	5,878.6	979.7	1,028.5	1,420.4	0.42	-0.42	
6,203.0	0.80	195.80	5,972.6	978.8	1,028.2	1,419.6	0.46	0.43	
6,298.0	1.40	210.90	6,067.5	977.2	1,027.4	1,417.9	0.70	0.63	
6,393.0	2.30	235.30	6,162.5	975.1	1,025.2	1,414.9	1.24	0.95	
6,489.0	2.40	211.00	6,258.4	972.3	1,022.6	1,411.0	1.04	0.10	
6,584.0	0.70	232.30	6,353.4	970.2	1,021.1	1,408.5	1.86	-1.79	
6,679.0	1.00	219.70	6,448.4	969.2	1,020.1	1,407.1	0.37	0.32	
6,774.0	1.80	233.00	6,543.3	967.7	1,018.4	1,404.8	0.90	0.84	
6,869.0	1.00	358.30	6,638.3	967.6	1,017.2	1,403.9	2.65	-0.84	
6,964.0	1.00	351.30	6,733.3	969.3	1,017.0	1,404.9	0.13	0.00	
7,059.0	1.00	280.10	6,828.3	970.3	1,016.1	1,404.9	1.23	0.00	
7,154.0	0.90	274.30	6,923.3	970.5	1,014.5	1,403.9	0.15	-0.11	
7,248.0	1.50	239.20	7,017.3	969.9	1,012.7	1,402.2	0.98	0.64	
7,344.0	1.80	259.90	7,113.2	969.0	1,010.2	1,399.8	0.69	0.31	
7,439.0	1.50	246.30	7,208.2	968.2	1,007.6	1,397.4	0.52	-0.32	
7,534.0	1.70	240.60	7,303.1	967.0	1,005.2	1,394.8	0.27	0.21	
7,629.0	2.60	234.90	7,398.1	965.1	1,002.2	1,391.3	0.97	0.95	
7,725.0	2.30	234.20	7,494.0	962.7	998.9	1,387.3	0.31	-0.31	
7,820.0	2.80	222.50	7,588.9	959.9	995.8	1,383.1	0.76	0.53	
7,915.0	2.70	227.40	7,683.8	956.7	992.5	1,378.5	0.27	-0.11	
8,010.0	3.30	224.90	7,778.7	953.2	989.0	1,373.6	0.65	0.63	
8,105.0	3.00	235.60	7,873.5	949.9	985.0	1,368.4	0.69	-0.32	
8,145.0	3.20	223.90	7,913.5	948.5	983.3	1,366.2	1.66	0.50	Last Cathedral Survey @ 8145' MD
8,200.0	3.20	223.90	7,968.4	946.3	981.2	1,363.1	0.00	0.00	Projection to Bit @ 8200' MD

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Axia Energy	<b>Local Co-ordinate Reference:</b>	Well Currey Federal A15-4
<b>Project:</b>	Mesa County, CO	<b>TVD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Site:</b>	S16-T9S-R94W	<b>MD Reference:</b>	WELL @ 6911.0ft (Patterson)
<b>Well:</b>	Currey Federal A15-4	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Currey Federal A15-4 PI	0.00	360.00	7,767.0	962.2	999.0	1,959,870.36	2,326,116.39	39.278840	-107.880120
- survey misses target center by 12.8ft at 7997.7ft MD (7766.3 TVD, 953.7 N, 989.5 E)									
- Point									
Currey Federal A15-4 HI	0.00	360.00	-7,767.0	962.2	999.0	1,959,870.35	2,326,116.44	39.278840	-107.880120
- survey misses target center by 7889.9ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			-7,767.0	50.0	-40.0	1,959,920.35	2,326,076.44		
Point 2			-7,767.0	-90.0	-40.0	1,959,780.35	2,326,076.44		
Point 3			-7,767.0	-90.0	50.0	1,959,780.35	2,326,166.44		
Point 4			-7,767.0	-90.0	-40.0	1,959,780.35	2,326,076.44		

Survey Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
8,145.0	7,913.5	948.5	983.3	Last Cathedral Survey @ 8145' MD	
8,200.0	7,968.4	946.3	981.2	Projection to Bit @ 8200' MD	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_