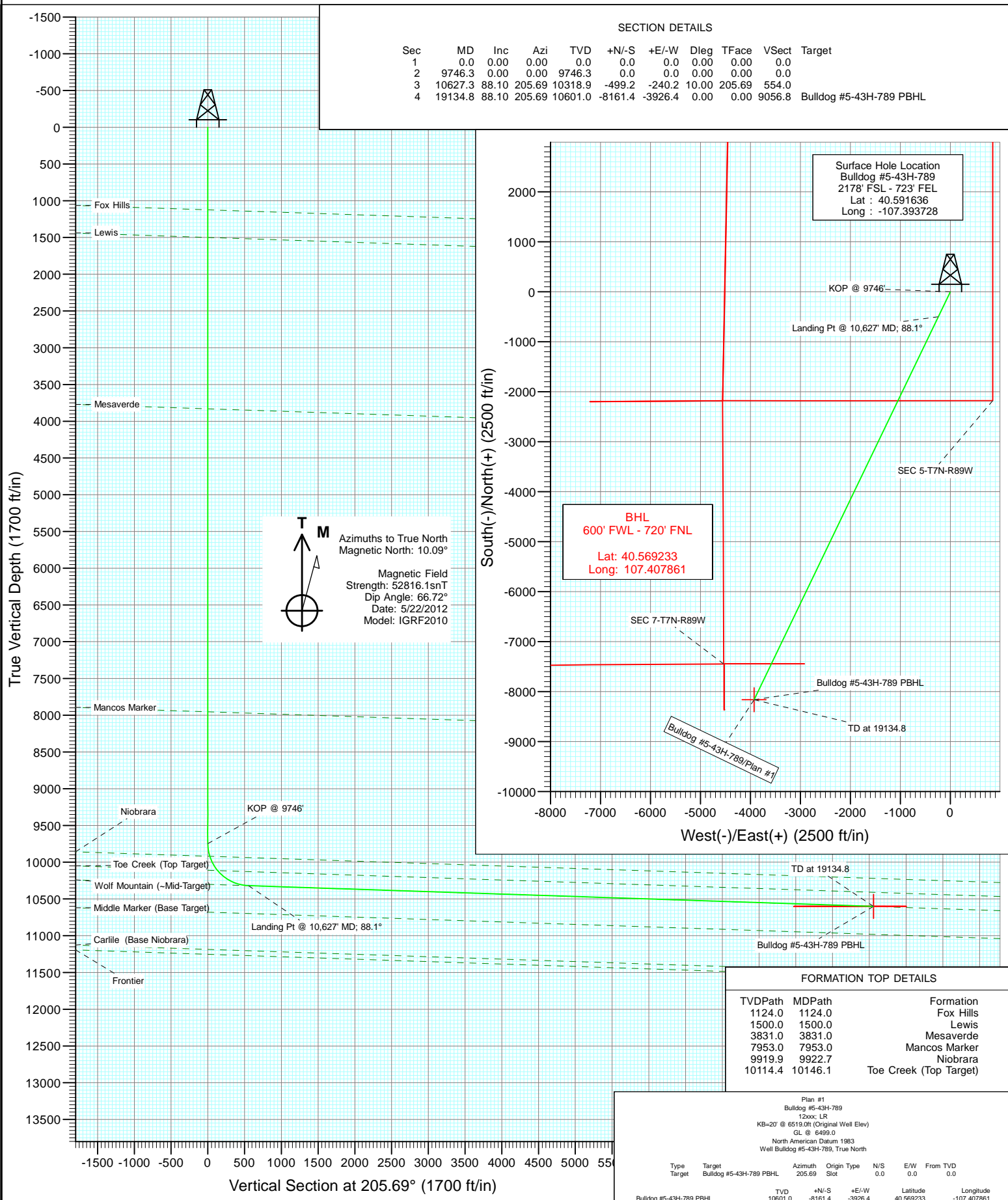


Axia Energy

Project: Moffat County, CO
Site: SEC 5-T7N-R89W
Well: Bulldog #5-43H-789
Wellbore: Hz
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bulldog #5-43H-789
Company:	Axia Energy	TVD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Project:	Moffat County, CO	MD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Site:	SEC 5-T7N-R89W	North Reference:	True
Well:	Bulldog #5-43H-789	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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

Site		SEC 5-T7N-R89W			
Site Position:		Northing:	1,462,492.93 ft	Latitude:	40.587281
From:	Lat/Long	Easting:	2,470,059.03 ft	Longitude:	-107.408206
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.23 °

Well	Bulldog #5-43H-789					
Well Position	+N/-S	0.0 ft	Northing:	1,463,992.95 ft	Latitude:	40.591636
	+E/-W	0.0 ft	Easting:	2,474,113.00 ft	Longitude:	-107.393728
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,499.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/22/2012	10.09	66.72	52,816

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	205.69

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,746.3	0.00	0.00	9,746.3	0.0	0.0	0.00	0.00	0.00	0.00	
10,627.3	88.10	205.69	10,318.9	-499.2	-240.2	10.00	10.00	0.00	205.69	
19,134.8	88.10	205.69	10,601.0	-8,161.4	-3,926.4	0.00	0.00	0.00	0.00	Bulldog #5-43H-789 F

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bulldog #5-43H-789
Company:	Axia Energy	TVD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Project:	Moffat County, CO	MD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Site:	SEC 5-T7N-R89W	North Reference:	True
Well:	Bulldog #5-43H-789	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,124.0	0.00	0.00	1,124.0	0.0	0.0	0.0	0.00	0.00	Fox Hills
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	Lewis
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	
3,831.0	0.00	0.00	3,831.0	0.0	0.0	0.0	0.00	0.00	Mesaverde
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bulldog #5-43H-789
Company:	Axia Energy	TVD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Project:	Moffat County, CO	MD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Site:	SEC 5-T7N-R89W	North Reference:	True
Well:	Bulldog #5-43H-789	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	
7,953.0	0.00	0.00	7,953.0	0.0	0.0	0.0	0.00	0.00	Mancos Marker
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	
9,746.3	0.00	0.00	9,746.3	0.0	0.0	0.0	0.00	0.00	KOP @ 9746'
9,800.0	5.37	205.69	9,799.9	-2.3	-1.1	2.5	10.00	10.00	
9,900.0	15.37	205.69	9,898.2	-18.5	-8.9	20.5	10.00	10.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bulldog #5-43H-789
Company:	Axia Energy	TVD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Project:	Moffat County, CO	MD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Site:	SEC 5-T7N-R89W	North Reference:	True
Well:	Bulldog #5-43H-789	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,922.7	17.64	205.69	9,919.9	-24.3	-11.7	26.9	10.01	10.01	Niobrara
10,000.0	25.37	205.69	9,991.8	-49.8	-24.0	55.3	10.00	10.00	
10,100.0	35.37	205.69	10,078.0	-95.3	-45.9	105.8	10.00	10.00	
10,146.1	39.98	205.69	10,114.4	-120.7	-58.1	133.9	10.00	10.00	Toe Creek (Top Target)
10,200.0	45.37	205.69	10,154.1	-153.6	-73.9	170.5	10.00	10.00	
10,300.0	55.37	205.69	10,217.8	-222.9	-107.2	247.4	10.00	10.00	
10,400.0	65.37	205.69	10,267.1	-301.2	-144.9	334.2	10.00	10.00	
10,500.0	75.37	205.69	10,300.7	-385.9	-185.7	428.3	10.00	10.00	
10,600.0	85.37	205.69	10,317.4	-474.7	-228.4	526.7	10.00	10.00	
10,627.3	88.10	205.69	10,318.9	-499.2	-240.2	554.0	10.01	10.01	Landing Pt @ 10,627' MD; 88.1°
10,700.0	88.10	205.69	10,321.3	-564.7	-271.7	626.7	0.00	0.00	
10,800.0	88.10	205.69	10,324.7	-654.8	-315.0	726.6	0.00	0.00	
10,900.0	88.10	205.69	10,328.0	-744.8	-358.3	826.5	0.00	0.00	
11,000.0	88.10	205.69	10,331.3	-834.9	-401.7	926.5	0.00	0.00	
11,100.0	88.10	205.69	10,334.6	-925.0	-445.0	1,026.4	0.00	0.00	
11,200.0	88.10	205.69	10,337.9	-1,015.0	-488.3	1,126.4	0.00	0.00	
11,300.0	88.10	205.69	10,341.2	-1,105.1	-531.6	1,226.3	0.00	0.00	
11,400.0	88.10	205.69	10,344.6	-1,195.2	-575.0	1,326.3	0.00	0.00	
11,500.0	88.10	205.69	10,347.9	-1,285.2	-618.3	1,426.2	0.00	0.00	
11,600.0	88.10	205.69	10,351.2	-1,375.3	-661.6	1,526.2	0.00	0.00	
11,700.0	88.10	205.69	10,354.5	-1,465.3	-705.0	1,626.1	0.00	0.00	
11,800.0	88.10	205.69	10,357.8	-1,555.4	-748.3	1,726.0	0.00	0.00	
11,900.0	88.10	205.69	10,361.1	-1,645.5	-791.6	1,826.0	0.00	0.00	
12,000.0	88.10	205.69	10,364.4	-1,735.5	-835.0	1,925.9	0.00	0.00	
12,100.0	88.10	205.69	10,367.8	-1,825.6	-878.3	2,025.9	0.00	0.00	
12,200.0	88.10	205.69	10,371.1	-1,915.7	-921.6	2,125.8	0.00	0.00	
12,300.0	88.10	205.69	10,374.4	-2,005.7	-964.9	2,225.8	0.00	0.00	
12,400.0	88.10	205.69	10,377.7	-2,095.8	-1,008.3	2,325.7	0.00	0.00	
12,500.0	88.10	205.69	10,381.0	-2,185.9	-1,051.6	2,425.7	0.00	0.00	
12,600.0	88.10	205.69	10,384.3	-2,275.9	-1,094.9	2,525.6	0.00	0.00	
12,700.0	88.10	205.69	10,387.7	-2,366.0	-1,138.3	2,625.6	0.00	0.00	
12,800.0	88.10	205.69	10,391.0	-2,456.1	-1,181.6	2,725.5	0.00	0.00	
12,900.0	88.10	205.69	10,394.3	-2,546.1	-1,224.9	2,825.4	0.00	0.00	
13,000.0	88.10	205.69	10,397.6	-2,636.2	-1,268.2	2,925.4	0.00	0.00	
13,100.0	88.10	205.69	10,400.9	-2,726.3	-1,311.6	3,025.3	0.00	0.00	
13,200.0	88.10	205.69	10,404.2	-2,816.3	-1,354.9	3,125.3	0.00	0.00	
13,300.0	88.10	205.69	10,407.5	-2,906.4	-1,398.2	3,225.2	0.00	0.00	
13,400.0	88.10	205.69	10,410.9	-2,996.4	-1,441.6	3,325.2	0.00	0.00	
13,500.0	88.10	205.69	10,414.2	-3,086.5	-1,484.9	3,425.1	0.00	0.00	
13,600.0	88.10	205.69	10,417.5	-3,176.6	-1,528.2	3,525.1	0.00	0.00	
13,700.0	88.10	205.69	10,420.8	-3,266.6	-1,571.5	3,625.0	0.00	0.00	
13,800.0	88.10	205.69	10,424.1	-3,356.7	-1,614.9	3,725.0	0.00	0.00	
13,900.0	88.10	205.69	10,427.4	-3,446.8	-1,658.2	3,824.9	0.00	0.00	
14,000.0	88.10	205.69	10,430.8	-3,536.8	-1,701.5	3,924.8	0.00	0.00	
14,100.0	88.10	205.69	10,434.1	-3,626.9	-1,744.9	4,024.8	0.00	0.00	
14,200.0	88.10	205.69	10,437.4	-3,717.0	-1,788.2	4,124.7	0.00	0.00	
14,300.0	88.10	205.69	10,440.7	-3,807.0	-1,831.5	4,224.7	0.00	0.00	
14,400.0	88.10	205.69	10,444.0	-3,897.1	-1,874.9	4,324.6	0.00	0.00	
14,500.0	88.10	205.69	10,447.3	-3,987.2	-1,918.2	4,424.6	0.00	0.00	
14,600.0	88.10	205.69	10,450.7	-4,077.2	-1,961.5	4,524.5	0.00	0.00	
14,700.0	88.10	205.69	10,454.0	-4,167.3	-2,004.8	4,624.5	0.00	0.00	
14,800.0	88.10	205.69	10,457.3	-4,257.3	-2,048.2	4,724.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bulldog #5-43H-789
Company:	Axia Energy	TVD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Project:	Moffat County, CO	MD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Site:	SEC 5-T7N-R89W	North Reference:	True
Well:	Bulldog #5-43H-789	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,900.0	88.10	205.69	10,460.6	-4,347.4	-2,091.5	4,824.4	0.00	0.00	
15,000.0	88.10	205.69	10,463.9	-4,437.5	-2,134.8	4,924.3	0.00	0.00	
15,100.0	88.10	205.69	10,467.2	-4,527.5	-2,178.2	5,024.2	0.00	0.00	
15,200.0	88.10	205.69	10,470.5	-4,617.6	-2,221.5	5,124.2	0.00	0.00	
15,300.0	88.10	205.69	10,473.9	-4,707.7	-2,264.8	5,224.1	0.00	0.00	
15,400.0	88.10	205.69	10,477.2	-4,797.7	-2,308.1	5,324.1	0.00	0.00	
15,500.0	88.10	205.69	10,480.5	-4,887.8	-2,351.5	5,424.0	0.00	0.00	
15,600.0	88.10	205.69	10,483.8	-4,977.9	-2,394.8	5,524.0	0.00	0.00	
15,700.0	88.10	205.69	10,487.1	-5,067.9	-2,438.1	5,623.9	0.00	0.00	
15,800.0	88.10	205.69	10,490.4	-5,158.0	-2,481.5	5,723.9	0.00	0.00	
15,900.0	88.10	205.69	10,493.8	-5,248.1	-2,524.8	5,823.8	0.00	0.00	
16,000.0	88.10	205.69	10,497.1	-5,338.1	-2,568.1	5,923.7	0.00	0.00	
16,100.0	88.10	205.69	10,500.4	-5,428.2	-2,611.4	6,023.7	0.00	0.00	
16,200.0	88.10	205.69	10,503.7	-5,518.3	-2,654.8	6,123.6	0.00	0.00	
16,300.0	88.10	205.69	10,507.0	-5,608.3	-2,698.1	6,223.6	0.00	0.00	
16,400.0	88.10	205.69	10,510.3	-5,698.4	-2,741.4	6,323.5	0.00	0.00	
16,500.0	88.10	205.69	10,513.6	-5,788.4	-2,784.8	6,423.5	0.00	0.00	
16,600.0	88.10	205.69	10,517.0	-5,878.5	-2,828.1	6,523.4	0.00	0.00	
16,700.0	88.10	205.69	10,520.3	-5,968.6	-2,871.4	6,623.4	0.00	0.00	
16,800.0	88.10	205.69	10,523.6	-6,058.6	-2,914.8	6,723.3	0.00	0.00	
16,900.0	88.10	205.69	10,526.9	-6,148.7	-2,958.1	6,823.3	0.00	0.00	
17,000.0	88.10	205.69	10,530.2	-6,238.8	-3,001.4	6,923.2	0.00	0.00	
17,100.0	88.10	205.69	10,533.5	-6,328.8	-3,044.7	7,023.1	0.00	0.00	
17,200.0	88.10	205.69	10,536.9	-6,418.9	-3,088.1	7,123.1	0.00	0.00	
17,300.0	88.10	205.69	10,540.2	-6,509.0	-3,131.4	7,223.0	0.00	0.00	
17,400.0	88.10	205.69	10,543.5	-6,599.0	-3,174.7	7,323.0	0.00	0.00	
17,500.0	88.10	205.69	10,546.8	-6,689.1	-3,218.1	7,422.9	0.00	0.00	
17,600.0	88.10	205.69	10,550.1	-6,779.2	-3,261.4	7,522.9	0.00	0.00	
17,700.0	88.10	205.69	10,553.4	-6,869.2	-3,304.7	7,622.8	0.00	0.00	
17,800.0	88.10	205.69	10,556.7	-6,959.3	-3,348.0	7,722.8	0.00	0.00	
17,900.0	88.10	205.69	10,560.1	-7,049.4	-3,391.4	7,822.7	0.00	0.00	
18,000.0	88.10	205.69	10,563.4	-7,139.4	-3,434.7	7,922.7	0.00	0.00	
18,100.0	88.10	205.69	10,566.7	-7,229.5	-3,478.0	8,022.6	0.00	0.00	
18,200.0	88.10	205.69	10,570.0	-7,319.5	-3,521.4	8,122.5	0.00	0.00	
18,300.0	88.10	205.69	10,573.3	-7,409.6	-3,564.7	8,222.5	0.00	0.00	
18,400.0	88.10	205.69	10,576.6	-7,499.7	-3,608.0	8,322.4	0.00	0.00	
18,500.0	88.10	205.69	10,580.0	-7,589.7	-3,651.3	8,422.4	0.00	0.00	
18,600.0	88.10	205.69	10,583.3	-7,679.8	-3,694.7	8,522.3	0.00	0.00	
18,700.0	88.10	205.69	10,586.6	-7,769.9	-3,738.0	8,622.3	0.00	0.00	
18,800.0	88.10	205.69	10,589.9	-7,859.9	-3,781.3	8,722.2	0.00	0.00	
18,900.0	88.10	205.69	10,593.2	-7,950.0	-3,824.7	8,822.2	0.00	0.00	
19,000.0	88.10	205.69	10,596.5	-8,040.1	-3,868.0	8,922.1	0.00	0.00	
19,100.0	88.10	205.69	10,599.8	-8,130.1	-3,911.3	9,022.1	0.00	0.00	
19,134.8	88.10	205.69	10,601.0	-8,161.4	-3,926.4	9,056.8	0.00	0.00	TD at 19134.8 - Bulldog #5-43H-789 PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bulldog #5-43H-789
Company:	Axia Energy	TVD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Project:	Moffat County, CO	MD Reference:	KB=20' @ 6519.0ft (Original Well Elev)
Site:	SEC 5-T7N-R89W	North Reference:	True
Well:	Bulldog #5-43H-789	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Bulldog #5-43H-789 PBI	0.00	0.00	10,601.0	-8,161.4	-3,926.4	1,455,917.26	2,470,013.25	40.569233	-107.407861
- plan hits target center									
- Polygon									
Point 1			10,601.0	720.0	1,000.0	1,456,615.74	2,471,028.40		
Point 2			10,601.0	720.0	-600.0	1,456,649.91	2,469,428.76		
Point 3			10,601.0	-200.0	-600.0	1,455,730.12	2,469,409.12		
Point 4			10,601.0	720.0	-600.0	1,456,649.91	2,469,428.76		

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
1,124.0	1,124.0	Fox Hills		1.90	205.69
1,500.0	1,500.0	Lewis		1.90	205.69
3,831.0	3,831.0	Mesaverde		1.90	205.69
7,953.0	7,953.0	Mancos Marker		1.90	205.69
9,922.7	9,919.0	Niobrara		1.90	205.69
10,146.1	10,110.0	Toe Creek (Top Target)		1.90	205.69

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
9,746.3	9,746.3	0.0	0.0	KOP @ 9746'
10,627.3	10,318.9	-499.2	-240.2	Landing Pt @ 10,627' MD; 88.1°
19,134.8	10,601.0	-8,161.4	-3,926.4	TD at 19134.8