

Well Planning Proposal FOR

Axia Energy
Bulldog #20-12H-892
Moffat Co., CO

Well File: Design #1 (4/18/12)

Presented By:

Pat Rasmussen
Regional Manager

Bret Wolford
Well Planner



Sharewell
Energy Services, LP

Axia Energy
 Project: Moffat Co., CO
 Site: Sec.20-T8N-R92W
 Well: Bulldog #20-12H-892
 Wellbore: Wellbore #1
 Design: Design #1
 Lat: 40° 37' 58.530 N
 Long: 107° 45' 3.179 W
 GL: 6841.00
 KB: WELL @ 6861.00usft



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10371.74	0.00	0.00	10371.74	0.00	0.00	0.00	0.00	0.00	KOP / Start Build 12.00°
11139.71	92.16	207.31	10848.86	-440.22	-227.30	12.00	207.31	488.55	EOC / Start 2718.60° hold at 11139.71 MD
13858.31	92.16	207.31	10746.54	-2854.11	-1473.66	0.00	0.00	3167.47	Start Turn 2.00°
14665.38	92.16	223.46	10715.96	-3509.45	-1939.13	2.00	89.69	3971.02	Start 4834.58° hold at 14665.38 MD
19499.96	92.16	223.46	10534.00	-7016.08	-5262.32	0.00	0.00	8770.26	TD at 19499.96

WELL DETAILS: Bulldog #20-12H-892

+N/-S	+E/-W	Northing	Ground Level:	6841.00	Slot
0.00	0.00	1481345.277	Easting	2375326.816	
			Latitude	40° 37' 58.530 N	
			Longitude	107° 45' 3.179 W	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Bulldog 20-12H-892 PBHL	10534.00	-7016.08	-5262.32	1474465.019	2369888.117	40° 36' 49.195 N	107° 46' 11.414 W	Point
Waypoint 1	10746.54	-2854.11	-1473.66	1478529.489	2373781.191	40° 37' 30.327 N	107° 45' 22.291 W	Point

SITE DETAILS: Sec.20-T8N-R92W

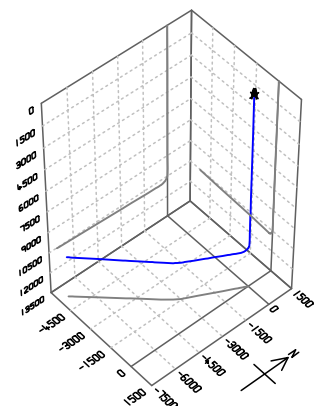
Site Centre Latitude: 40° 37' 58.530 N
 Longitude: 107° 45' 3.179 W

Positional Uncertainty: 0.00
 Convergence: -1.45
 Local North: True

PROJECT DETAILS: Moffat Co., CO

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone

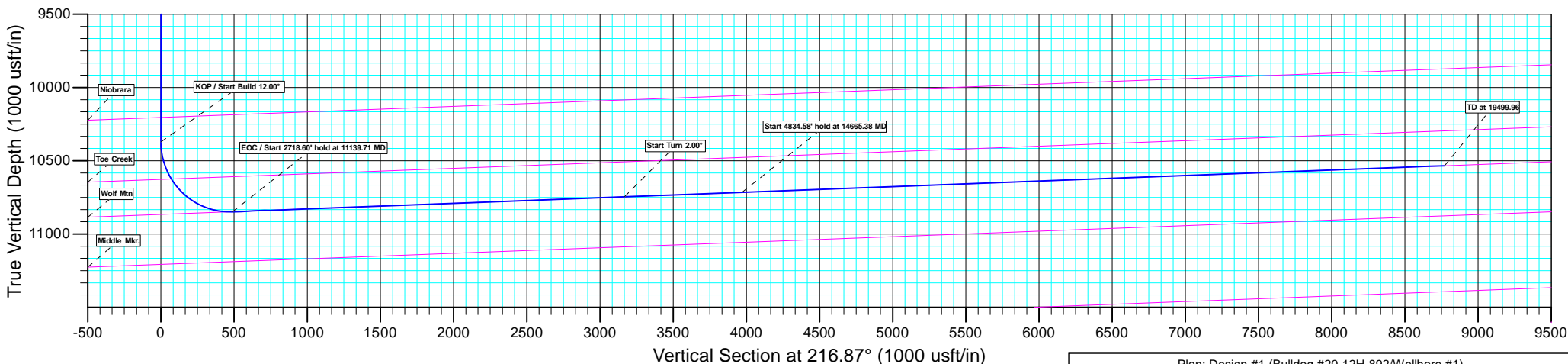
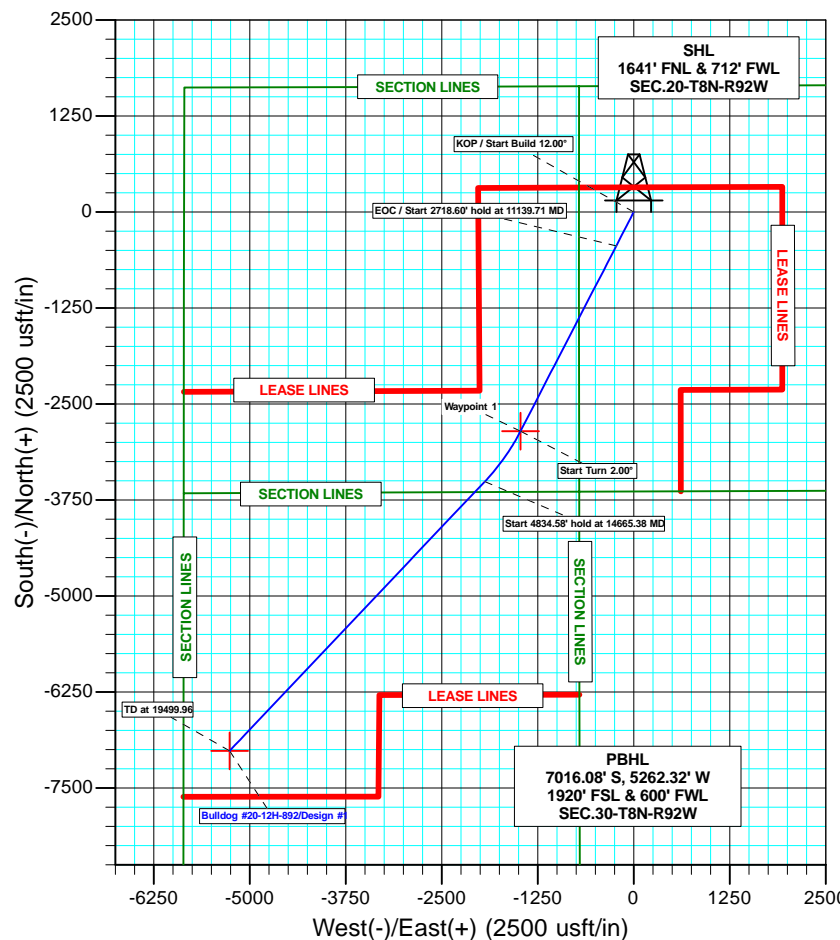
System Datum: Mean Sea Level



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2132.00	2132.00	Lewis
3827.00	3827.00	Mesaverde
7927.00	7927.00	Mancos Mkr
10205.00	10205.00	Niobrara
10625.28	10639.02	Toe Creek
10849.20	11120.62	Wolf Mtn

Azimuths to True North
 Magnetic North: 10.28°
 Magnetic Field
 Strength: 52800.4snT
 Dip Angle: 66.69°
 Date: 2012/04/17
 Model: IGRF2010



Plan: Design #1 (Bulldog #20-12H-892/Wellbore #1)

Created By: BRET WOLFORD Date: 11:29, April 18 2012

Axia Energy

Moffat Co., CO

Sec.20-T8N-R92W

Bulldog #20-12H-892

Wellbore #1

Plan: Design #1

Standard Planning Report

18 April, 2012



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bulldog #20-12H-892
Company:	Axia Energy	TVD Reference:	WELL @ 6861.00usft
Project:	Moffat Co., CO	MD Reference:	WELL @ 6861.00usft
Site:	Sec.20-T8N-R92W	North Reference:	True
Well:	Bulldog #20-12H-892	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Moffat Co., 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.20-T8N-R92W				
Site Position:		Northing:	1,481,345.281 usft	Latitude:	40° 37' 58.530 N
From:	Lat/Long	Easting:	2,375,326.816 usft	Longitude:	107° 45' 3.179 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	-1.45 °

Well	Bulldog #20-12H-892					
Well Position	+N/-S	0.00 usft	Northing:	1,481,345.277 usft	Latitude:	40° 37' 58.530 N
	+E/-W	0.00 usft	Easting:	2,375,326.816 usft	Longitude:	107° 45' 3.179 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,841.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2012/04/17	10.28	66.69	52,800

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	10,534.00	0.00	0.00	216.87

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10,371.74	0.00	0.00	10,371.74	0.00	0.00	0.00	0.00	0.00	0.00	
11,139.71	92.16	207.31	10,848.86	-440.22	-227.30	12.00	12.00	0.00	207.31	Waypoint 1
13,858.31	92.16	207.31	10,746.54	-2,854.11	-1,473.66	0.00	0.00	0.00	0.00	Waypoint 1
14,665.38	92.16	223.46	10,715.96	-3,509.45	-1,939.13	2.00	0.00	2.00	89.69	Bulldog 20-12H-892 F
19,499.96	92.16	223.46	10,534.00	-7,016.08	-5,262.32	0.00	0.00	0.00	0.00	Bulldog 20-12H-892 F

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bulldog #20-12H-892
Company:	Axia Energy	TVD Reference:	WELL @ 6861.00usft
Project:	Moffat Co., CO	MD Reference:	WELL @ 6861.00usft
Site:	Sec.20-T8N-R92W	North Reference:	True
Well:	Bulldog #20-12H-892	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Lewis									
2,132.00	0.00	0.00	2,132.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Mesaverde									
3,827.00	0.00	0.00	3,827.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bulldog #20-12H-892
Company:	Axia Energy	TVD Reference:	WELL @ 6861.00usft
Project:	Moffat Co., CO	MD Reference:	WELL @ 6861.00usft
Site:	Sec.20-T8N-R92W	North Reference:	True
Well:	Bulldog #20-12H-892	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
Mancos Mkr									
7,927.00	0.00	0.00	7,927.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bulldog #20-12H-892
Company:	Axia Energy	TVD Reference:	WELL @ 6861.00usft
Project:	Moffat Co., CO	MD Reference:	WELL @ 6861.00usft
Site:	Sec.20-T8N-R92W	North Reference:	True
Well:	Bulldog #20-12H-892	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
Niobrara									
10,205.00	0.00	0.00	10,205.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP / Start Build 12.00°									
10,371.74	0.00	0.00	10,371.74	0.00	0.00	0.00	0.00	0.00	0.00
10,375.00	0.39	207.31	10,375.00	-0.01	-0.01	0.01	12.00	12.00	0.00
10,400.00	3.39	207.31	10,399.98	-0.74	-0.38	0.82	12.00	12.00	0.00
10,425.00	6.39	207.31	10,424.89	-2.64	-1.36	2.93	12.00	12.00	0.00
10,450.00	9.39	207.31	10,449.65	-5.69	-2.94	6.31	12.00	12.00	0.00
10,475.00	12.39	207.31	10,474.20	-9.88	-5.10	10.97	12.00	12.00	0.00
10,500.00	15.39	207.31	10,498.46	-15.22	-7.86	16.89	12.00	12.00	0.00
10,525.00	18.39	207.31	10,522.38	-21.67	-11.19	24.05	12.00	12.00	0.00
10,550.00	21.39	207.31	10,545.89	-29.23	-15.09	32.44	12.00	12.00	0.00
10,575.00	24.39	207.31	10,568.92	-37.87	-19.55	42.02	12.00	12.00	0.00
10,600.00	27.39	207.31	10,591.40	-47.57	-24.56	52.79	12.00	12.00	0.00
10,625.00	30.39	207.31	10,613.29	-58.30	-30.10	64.70	12.00	12.00	0.00
Toe Creek									
10,639.02	32.07	207.31	10,625.28	-64.76	-33.44	71.87	12.00	12.00	0.00
10,650.00	33.39	207.31	10,634.51	-70.03	-36.16	77.72	12.00	12.00	0.00
10,675.00	36.39	207.31	10,655.02	-82.74	-42.72	91.82	12.00	12.00	0.00
10,700.00	39.39	207.31	10,674.74	-96.38	-49.76	106.96	12.00	12.00	0.00
10,725.00	42.39	207.31	10,693.64	-110.92	-57.27	123.10	12.00	12.00	0.00
10,750.00	45.39	207.31	10,711.66	-126.32	-65.22	140.19	12.00	12.00	0.00
10,775.00	48.39	207.31	10,728.74	-142.53	-73.59	158.18	12.00	12.00	0.00
10,800.00	51.39	207.31	10,744.84	-159.52	-82.36	177.03	12.00	12.00	0.00
10,825.00	54.39	207.31	10,759.92	-177.23	-91.51	196.69	12.00	12.00	0.00
10,850.00	57.39	207.31	10,773.94	-195.62	-101.01	217.10	12.00	12.00	0.00
10,875.00	60.39	207.31	10,786.86	-214.64	-110.83	238.21	12.00	12.00	0.00
10,900.00	63.39	207.31	10,798.63	-234.23	-120.94	259.95	12.00	12.00	0.00
10,925.00	66.39	207.31	10,809.24	-254.34	-131.33	282.27	12.00	12.00	0.00
10,950.00	69.39	207.31	10,818.65	-274.92	-141.95	305.11	12.00	12.00	0.00
10,975.00	72.39	207.31	10,826.83	-295.91	-152.79	328.40	12.00	12.00	0.00
11,000.00	75.39	207.31	10,833.77	-317.25	-163.80	352.08	12.00	12.00	0.00
11,025.00	78.39	207.31	10,839.44	-338.88	-174.97	376.09	12.00	12.00	0.00
11,050.00	81.39	207.31	10,843.82	-360.75	-186.26	400.36	12.00	12.00	0.00
11,075.00	84.39	207.31	10,846.92	-382.79	-197.64	424.82	12.00	12.00	0.00
11,100.00	87.39	207.31	10,848.71	-404.94	-209.08	449.40	12.00	12.00	0.00
Wolf Mtn									
11,120.62	89.87	207.31	10,849.20	-423.25	-218.54	469.72	12.00	12.00	0.00
11,125.00	90.39	207.31	10,849.19	-427.15	-220.55	474.05	12.00	12.00	0.00
EOC / Start 2718.60' hold at 11139.71 MD									
11,139.71	92.16	207.31	10,848.86	-440.22	-227.30	488.55	12.00	12.00	0.00
11,200.00	92.16	207.31	10,846.60	-493.75	-254.94	547.96	0.00	0.00	0.00
11,300.00	92.16	207.31	10,842.83	-582.54	-300.78	646.50	0.00	0.00	0.00
11,400.00	92.16	207.31	10,839.07	-671.33	-346.63	745.04	0.00	0.00	0.00
11,500.00	92.16	207.31	10,835.30	-760.12	-392.47	843.58	0.00	0.00	0.00
11,600.00	92.16	207.31	10,831.54	-848.92	-438.32	942.12	0.00	0.00	0.00
11,700.00	92.16	207.31	10,827.78	-937.71	-484.17	1,040.66	0.00	0.00	0.00
11,800.00	92.16	207.31	10,824.01	-1,026.50	-530.01	1,139.20	0.00	0.00	0.00
11,900.00	92.16	207.31	10,820.25	-1,115.29	-575.86	1,237.74	0.00	0.00	0.00
12,000.00	92.16	207.31	10,816.48	-1,204.08	-621.70	1,336.28	0.00	0.00	0.00
12,100.00	92.16	207.31	10,812.72	-1,292.88	-667.55	1,434.82	0.00	0.00	0.00

Database: EDM 5000.1 Single User Db
Company: Axia Energy
Project: Moffat Co., CO
Site: Sec.20-T8N-R92W
Well: Bulldog #20-12H-892
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Bulldog #20-12H-892
 WELL @ 6861.00usft
 WELL @ 6861.00usft
 True
 Minimum Curvature

Planned 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)
12,200.00	92.16	207.31	10,808.96	-1,381.67	-713.39	1,533.36	0.00	0.00	0.00
12,300.00	92.16	207.31	10,805.19	-1,470.46	-759.24	1,631.91	0.00	0.00	0.00
12,400.00	92.16	207.31	10,801.43	-1,559.25	-805.09	1,730.45	0.00	0.00	0.00
12,500.00	92.16	207.31	10,797.67	-1,648.04	-850.93	1,828.99	0.00	0.00	0.00
12,600.00	92.16	207.31	10,793.90	-1,736.83	-896.78	1,927.53	0.00	0.00	0.00
12,700.00	92.16	207.31	10,790.14	-1,825.63	-942.62	2,026.07	0.00	0.00	0.00
12,800.00	92.16	207.31	10,786.37	-1,914.42	-988.47	2,124.61	0.00	0.00	0.00
12,900.00	92.16	207.31	10,782.61	-2,003.21	-1,034.32	2,223.15	0.00	0.00	0.00
13,000.00	92.16	207.31	10,778.85	-2,092.00	-1,080.16	2,321.69	0.00	0.00	0.00
13,100.00	92.16	207.31	10,775.08	-2,180.79	-1,126.01	2,420.23	0.00	0.00	0.00
13,200.00	92.16	207.31	10,771.32	-2,269.59	-1,171.85	2,518.77	0.00	0.00	0.00
13,300.00	92.16	207.31	10,767.56	-2,358.38	-1,217.70	2,617.31	0.00	0.00	0.00
13,400.00	92.16	207.31	10,763.79	-2,447.17	-1,263.54	2,715.85	0.00	0.00	0.00
13,500.00	92.16	207.31	10,760.03	-2,535.96	-1,309.39	2,814.39	0.00	0.00	0.00
13,600.00	92.16	207.31	10,756.26	-2,624.75	-1,355.24	2,912.93	0.00	0.00	0.00
13,700.00	92.16	207.31	10,752.50	-2,713.55	-1,401.08	3,011.47	0.00	0.00	0.00
13,800.00	92.16	207.31	10,748.74	-2,802.34	-1,446.93	3,110.01	0.00	0.00	0.00
Start Turn 2.00° - Waypoint 1									
13,858.31	92.16	207.31	10,746.54	-2,854.11	-1,473.66	3,167.47	0.00	0.00	0.00
13,900.00	92.16	208.14	10,744.97	-2,890.99	-1,493.04	3,208.60	2.00	0.01	2.00
14,000.00	92.17	210.14	10,741.19	-2,978.26	-1,541.71	3,307.62	2.00	0.01	2.00
14,100.00	92.18	212.15	10,737.40	-3,063.78	-1,593.39	3,407.04	2.00	0.01	2.00
14,200.00	92.18	214.15	10,733.60	-3,147.44	-1,648.02	3,506.76	2.00	0.00	2.00
14,300.00	92.18	216.15	10,729.80	-3,229.15	-1,705.55	3,606.63	2.00	0.00	2.00
14,400.00	92.18	218.15	10,726.00	-3,308.79	-1,765.89	3,706.55	2.00	0.00	2.00
14,500.00	92.17	220.15	10,722.21	-3,386.28	-1,828.98	3,806.40	2.00	0.00	2.00
14,600.00	92.16	222.15	10,718.43	-3,461.52	-1,894.73	3,906.04	2.00	-0.01	2.00
Start 4834.58' hold at 14665.38 MD									
14,665.38	92.16	223.46	10,715.96	-3,509.45	-1,939.13	3,971.02	2.00	-0.01	2.00
14,700.00	92.16	223.46	10,714.66	-3,534.56	-1,962.93	4,005.39	0.00	0.00	0.00
14,800.00	92.16	223.46	10,710.90	-3,607.09	-2,031.66	4,104.66	0.00	0.00	0.00
14,900.00	92.16	223.46	10,707.13	-3,679.63	-2,100.40	4,203.93	0.00	0.00	0.00
15,000.00	92.16	223.46	10,703.37	-3,752.16	-2,169.14	4,303.20	0.00	0.00	0.00
15,100.00	92.16	223.46	10,699.61	-3,824.69	-2,237.88	4,402.47	0.00	0.00	0.00
15,200.00	92.16	223.46	10,695.84	-3,897.22	-2,306.62	4,501.74	0.00	0.00	0.00
15,300.00	92.16	223.46	10,692.08	-3,969.75	-2,375.35	4,601.00	0.00	0.00	0.00
15,400.00	92.16	223.46	10,688.31	-4,042.29	-2,444.09	4,700.27	0.00	0.00	0.00
15,500.00	92.16	223.46	10,684.55	-4,114.82	-2,512.83	4,799.54	0.00	0.00	0.00
15,600.00	92.16	223.46	10,680.79	-4,187.35	-2,581.57	4,898.81	0.00	0.00	0.00
15,700.00	92.16	223.46	10,677.02	-4,259.88	-2,650.31	4,998.08	0.00	0.00	0.00
15,800.00	92.16	223.46	10,673.26	-4,332.42	-2,719.04	5,097.35	0.00	0.00	0.00
15,900.00	92.16	223.46	10,669.49	-4,404.95	-2,787.78	5,196.62	0.00	0.00	0.00
16,000.00	92.16	223.46	10,665.73	-4,477.48	-2,856.52	5,295.89	0.00	0.00	0.00
16,100.00	92.16	223.46	10,661.97	-4,550.01	-2,925.26	5,395.16	0.00	0.00	0.00
16,200.00	92.16	223.46	10,658.20	-4,622.54	-2,994.00	5,494.42	0.00	0.00	0.00
16,300.00	92.16	223.46	10,654.44	-4,695.08	-3,062.73	5,593.69	0.00	0.00	0.00
16,400.00	92.16	223.46	10,650.68	-4,767.61	-3,131.47	5,692.96	0.00	0.00	0.00
16,500.00	92.16	223.46	10,646.91	-4,840.14	-3,200.21	5,792.23	0.00	0.00	0.00
16,600.00	92.16	223.46	10,643.15	-4,912.67	-3,268.95	5,891.50	0.00	0.00	0.00
16,700.00	92.16	223.46	10,639.38	-4,985.21	-3,337.69	5,990.77	0.00	0.00	0.00
16,800.00	92.16	223.46	10,635.62	-5,057.74	-3,406.42	6,090.04	0.00	0.00	0.00
16,900.00	92.16	223.46	10,631.86	-5,130.27	-3,475.16	6,189.31	0.00	0.00	0.00
17,000.00	92.16	223.46	10,628.09	-5,202.80	-3,543.90	6,288.58	0.00	0.00	0.00
17,100.00	92.16	223.46	10,624.33	-5,275.34	-3,612.64	6,387.84	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bulldog #20-12H-892
Company:	Axia Energy	TVD Reference:	WELL @ 6861.00usft
Project:	Moffat Co., CO	MD Reference:	WELL @ 6861.00usft
Site:	Sec.20-T8N-R92W	North Reference:	True
Well:	Bulldog #20-12H-892	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)
17,200.00	92.16	223.46	10,620.57	-5,347.87	-3,681.38	6,487.11	0.00	0.00	0.00
17,300.00	92.16	223.46	10,616.80	-5,420.40	-3,750.11	6,586.38	0.00	0.00	0.00
17,400.00	92.16	223.46	10,613.04	-5,492.93	-3,818.85	6,685.65	0.00	0.00	0.00
17,500.00	92.16	223.46	10,609.27	-5,565.46	-3,887.59	6,784.92	0.00	0.00	0.00
17,600.00	92.16	223.46	10,605.51	-5,638.00	-3,956.33	6,884.19	0.00	0.00	0.00
17,700.00	92.16	223.46	10,601.75	-5,710.53	-4,025.07	6,983.46	0.00	0.00	0.00
17,800.00	92.16	223.46	10,597.98	-5,783.06	-4,093.80	7,082.73	0.00	0.00	0.00
17,900.00	92.16	223.46	10,594.22	-5,855.59	-4,162.54	7,181.99	0.00	0.00	0.00
18,000.00	92.16	223.46	10,590.46	-5,928.13	-4,231.28	7,281.26	0.00	0.00	0.00
18,100.00	92.16	223.46	10,586.69	-6,000.66	-4,300.02	7,380.53	0.00	0.00	0.00
18,200.00	92.16	223.46	10,582.93	-6,073.19	-4,368.75	7,479.80	0.00	0.00	0.00
18,300.00	92.16	223.46	10,579.16	-6,145.72	-4,437.49	7,579.07	0.00	0.00	0.00
18,400.00	92.16	223.46	10,575.40	-6,218.25	-4,506.23	7,678.34	0.00	0.00	0.00
18,500.00	92.16	223.46	10,571.64	-6,290.79	-4,574.97	7,777.61	0.00	0.00	0.00
18,600.00	92.16	223.46	10,567.87	-6,363.32	-4,643.71	7,876.88	0.00	0.00	0.00
18,700.00	92.16	223.46	10,564.11	-6,435.85	-4,712.44	7,976.15	0.00	0.00	0.00
18,800.00	92.16	223.46	10,560.34	-6,508.38	-4,781.18	8,075.41	0.00	0.00	0.00
18,900.00	92.16	223.46	10,556.58	-6,580.92	-4,849.92	8,174.68	0.00	0.00	0.00
19,000.00	92.16	223.46	10,552.82	-6,653.45	-4,918.66	8,273.95	0.00	0.00	0.00
19,100.00	92.16	223.46	10,549.05	-6,725.98	-4,987.40	8,373.22	0.00	0.00	0.00
19,200.00	92.16	223.46	10,545.29	-6,798.51	-5,056.13	8,472.49	0.00	0.00	0.00
19,300.00	92.16	223.46	10,541.53	-6,871.05	-5,124.87	8,571.76	0.00	0.00	0.00
19,400.00	92.16	223.46	10,537.76	-6,943.58	-5,193.61	8,671.03	0.00	0.00	0.00
TD at 19499.96 - Bulldog 20-12H-892 PBHL									
19,499.96	92.16	223.46	10,534.00	-7,016.08	-5,262.32	8,770.26	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Bulldog 20-12H-892 PBI	0.00	0.00	10,534.00	-7,016.08	-5,262.32	1,474,465.019	2,369,888.117	40° 36' 49.195 N	107° 46' 11.414 W
- plan hits target center									
- Point									
Waypoint 1	0.00	0.00	10,746.54	-2,854.11	-1,473.66	1,478,529.489	2,373,781.191	40° 37' 30.327 N	107° 45' 22.291 W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,132.00	2,132.00	Lewis		-2.17	216.87	
3,827.00	3,827.00	Mesaverde		-2.17	216.87	
7,927.00	7,927.00	Mancos Mkr		-2.17	216.87	
10,205.00	10,205.00	Niobrara		-2.17	216.87	
10,639.02	10,628.00	Toe Creek		-2.17	216.87	
11,120.62	10,867.00	Wolf Mtn		-2.17	216.87	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bulldog #20-12H-892
Company:	Axia Energy	TVD Reference:	WELL @ 6861.00usft
Project:	Moffat Co., CO	MD Reference:	WELL @ 6861.00usft
Site:	Sec.20-T8N-R92W	North Reference:	True
Well:	Bulldog #20-12H-892	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,371.74	10,371.74	0.00	0.00	KOP / Start Build 12.00°
11,139.71	10,848.86	-440.22	-227.30	EOC / Start 2718.60' hold at 11139.71 MD
13,858.31	10,746.54	-2,854.11	-1,473.66	Start Turn 2.00°
14,665.38	10,715.96	-3,509.45	-1,939.13	Start 4834.58' hold at 14665.38 MD
19,499.96	10,534.00	-7,016.08	-5,262.32	TD at 19499.96