

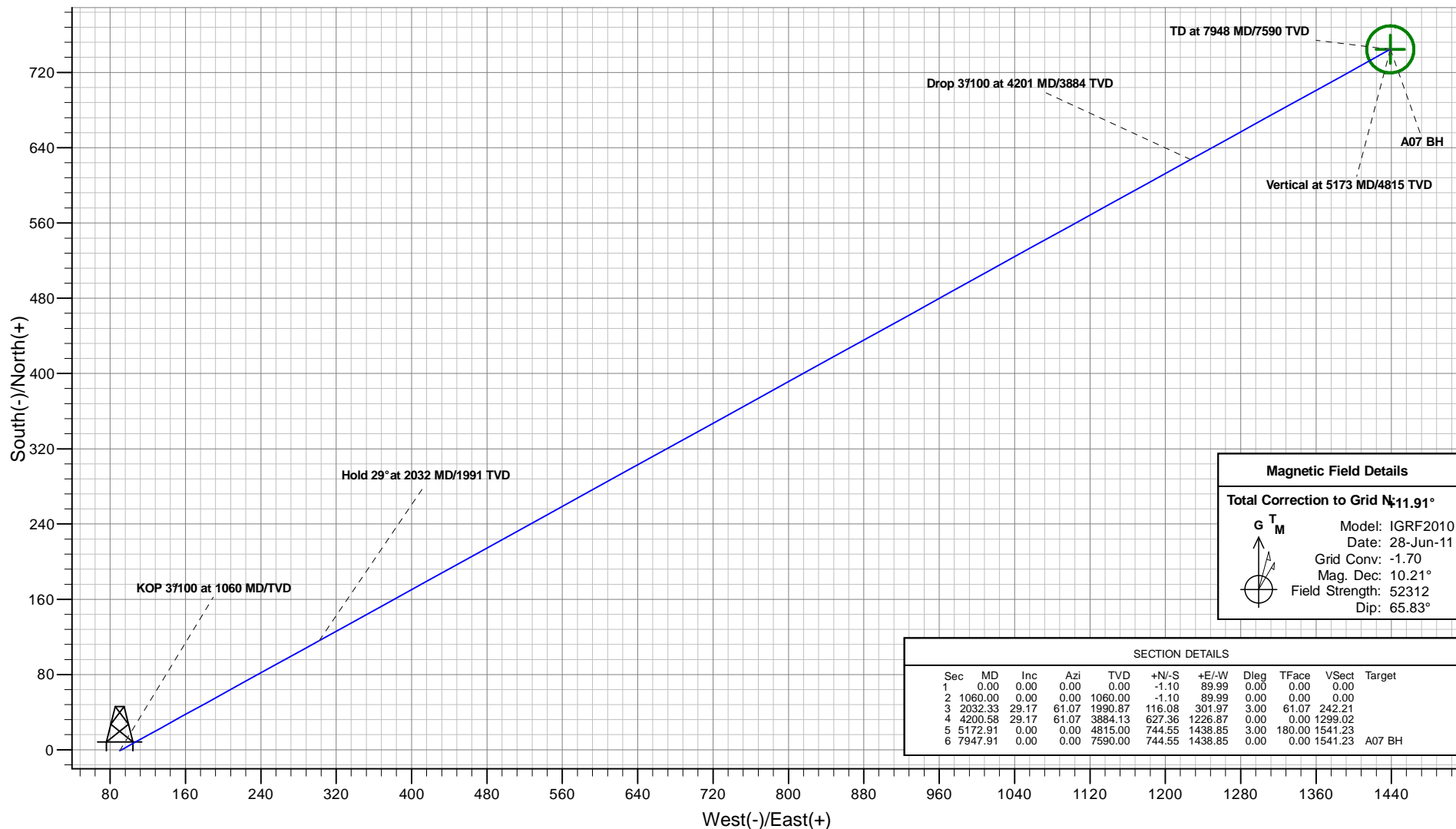


PLAN VIEW

Antero Resources

McPherson A07 (111360)

Project: McPherson
Site: McPherson A Pad
Well: McPherson A07 (111360)
Wellbore: A07
Design: A07 P01



Magnetic Field Details	
Total Correction to Grid $N_{11.91}^{\circ}$	
G^T_M	Model: IGRF2010
	Date: 28-Jun-11
	Grid Conv: -1.70
	Mag. Dec: 10.21°
	Field Strength: 52312
	Dip: 65.83°

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	-1.10	89.99	0.00	0.00	0.00	
2	1060.00	0.00	0.00	1060.00	-1.10	89.99	0.00	0.00	0.00	
3	2032.33	29.17	61.07	1990.87	116.08	301.97	3.00	61.07	242.21	
4	4200.58	29.17	61.07	3884.13	627.36	1226.87	0.00	0.00	1239.02	
5	5172.91	0.00	0.00	4815.00	744.55	1438.85	3.00	180.00	1541.23	
6	7947.91	0.00	0.00	7590.00	744.55	1438.85	0.00	0.00	1541.23	A07 BH

Plan: A07 P01
Created By: ARK Directional Services
Date: 9:38, March 30 2011

PROJECT DETAILS: McPherson
Geodetic System: Universal Transverse Mercator
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION
Co-ordinate (N/E) Reference: Site McPherson A Pad, Grid North
Vertical (TVD) Reference: KB @ 5472.00ft (Original Well Elev)
Section (VS) Reference: Slot - A07(-1.10N, 89.99E)
Measured Depth Reference: KB @ 5472.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

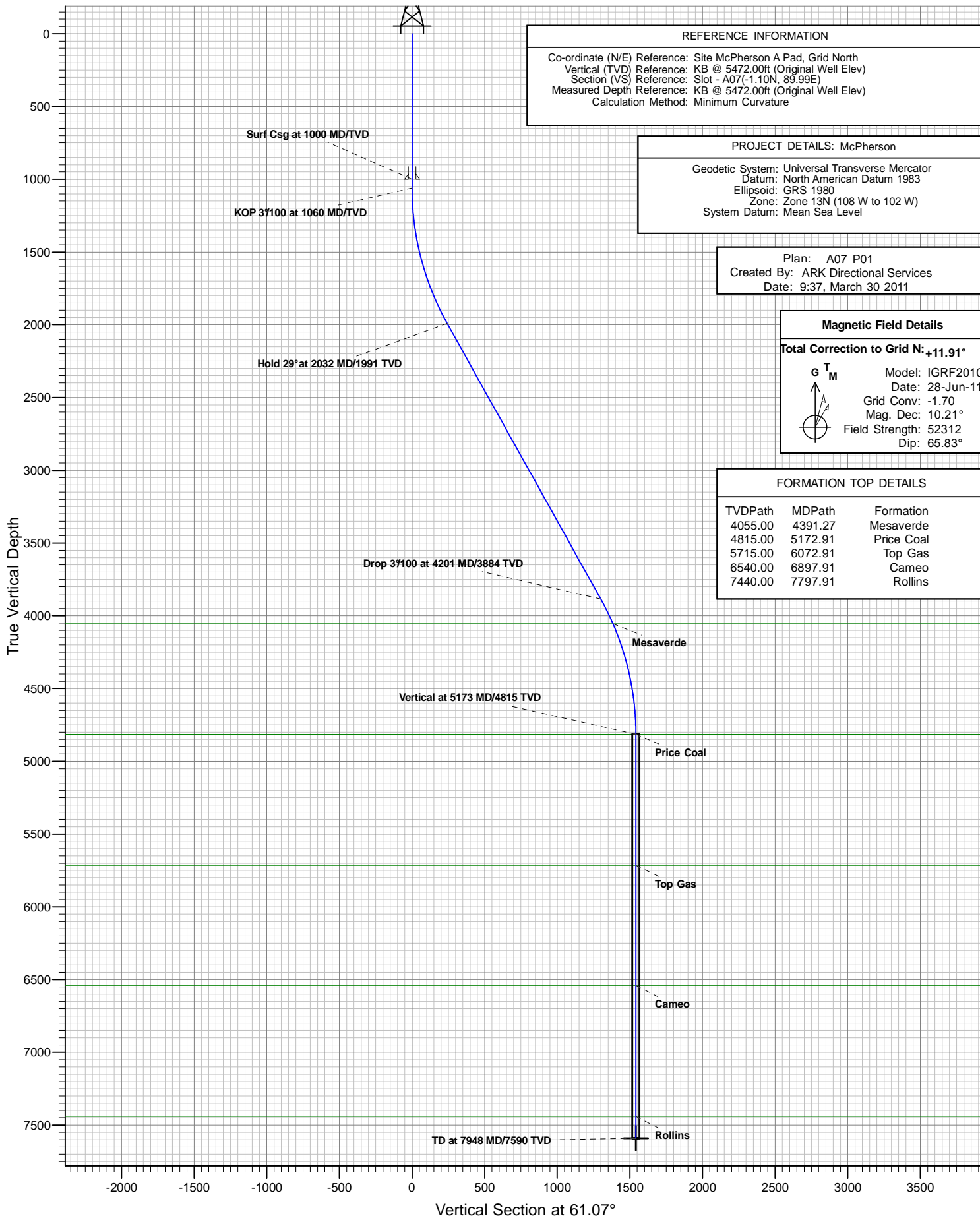


Antero Resources



VERTICAL SECTION VIEW

McPherson A07 (111360)



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Site McPherson A Pad, Grid North
 Vertical (TVD) Reference: KB @ 5472.00ft (Original Well Elev)
 Section (VS) Reference: Slot - A07/(-1.10N, 89.99E)
 Measured Depth Reference: KB @ 5472.00ft (Original Well Elev)
 Calculation Method: Minimum Curvature

PROJECT DETAILS: McPherson

Geodetic System: Universal Transverse Mercator
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Zone 13N (108 W to 102 W)
 System Datum: Mean Sea Level

Plan: A07 P01
 Created By: ARK Directional Services
 Date: 9:37, March 30 2011

Magnetic Field Details

Total Correction to Grid N: +11.91°

G T M Model: IGRF2010
 Date: 28-Jun-11
 Grid Conv: -1.70
 Mag. Dec: 10.21°
 Field Strength: 52312
 Dip: 65.83°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4055.00	4391.27	Mesaverde
4815.00	5172.91	Price Coal
5715.00	6072.91	Top Gas
6540.00	6897.91	Cameo
7440.00	7797.91	Rollins

Antero Resources

McPherson

McPherson A Pad

McPherson A07 (111360) - Slot A07

A07

Plan: A07 P01

Standard Planning Report - Geographic

30 March, 2011

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McPherson A Pad
Company:	Antero Resources	TVD Reference:	KB @ 5472.00ft (Original Well Elev)
Project:	McPherson	MD Reference:	KB @ 5472.00ft (Original Well Elev)
Site:	McPherson A Pad	North Reference:	Grid
Well:	McPherson A07 (111360)	Survey Calculation Method:	Minimum Curvature
Wellbore:	A07		
Design:	A07 P01		

Project	McPherson		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		McPherson A Pad			
Site Position:		Northing:	14,367,218.623 usft	Latitude:	39.531108419°N
From:	Map	Easting:	885,836.083 usft	Longitude:	107.676038841°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.70 °

Well	McPherson A07 (111360) - Slot A07					
Well Position	+N/-S	-1.10 ft	Northing:	14,367,217.522 usft	Latitude:	39.531112743°N
	+E/-W	89.99 ft	Easting:	885,926.077 usft	Longitude:	107.675719897°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,448.00 ft

Wellbore	A07				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/06/28	10.21	65.83	52,312

Design	A07 P01				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	-1.10	89.99	61.07	

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
0.00	0.00	0.00	0.00	-1.10	89.99	0.00	0.00	0.00	0.00	
1,060.00	0.00	0.00	1,060.00	-1.10	89.99	0.00	0.00	0.00	0.00	
2,032.33	29.17	61.07	1,990.87	116.08	301.97	3.00	3.00	0.00	61.07	
4,200.58	29.17	61.07	3,884.13	627.36	1,226.87	0.00	0.00	0.00	0.00	
5,172.91	0.00	0.00	4,815.00	744.55	1,438.85	3.00	-3.00	0.00	180.00	
7,947.91	0.00	0.00	7,590.00	744.55	1,438.85	0.00	0.00	0.00	0.00	A07 BH

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McPherson A Pad
Company:	Antero Resources	TVD Reference:	KB @ 5472.00ft (Original Well Elev)
Project:	McPherson	MD Reference:	KB @ 5472.00ft (Original Well Elev)
Site:	McPherson A Pad	North Reference:	Grid
Well:	McPherson A07 (111360)	Survey Calculation Method:	Minimum Curvature
Wellbore:	A07		
Design:	A07 P01		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
100.00	0.00	0.00	100.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
200.00	0.00	0.00	200.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
300.00	0.00	0.00	300.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
400.00	0.00	0.00	400.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
500.00	0.00	0.00	500.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
600.00	0.00	0.00	600.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
700.00	0.00	0.00	700.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
800.00	0.00	0.00	800.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
900.00	0.00	0.00	900.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
1,000.00	0.00	0.00	1,000.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
Surf Csg at 1000 MD/TVD									
1,060.00	0.00	0.00	1,060.00	-1.10	89.99	14,367,217.522	885,926.077	39.531112743°N	107.675719897°W
KOP 3°/100 at 1060 MD/TVD									
1,100.00	1.20	61.07	1,100.00	-0.90	90.36	14,367,217.724	885,926.444	39.531113329°N	107.675718620°W
1,200.00	4.20	61.07	1,199.87	1.38	94.48	14,367,220.003	885,930.566	39.531119917°N	107.675704256°W
1,300.00	7.20	61.07	1,299.37	6.18	103.17	14,367,224.808	885,939.257	39.531133807°N	107.675673972°W
1,400.00	10.20	61.07	1,398.21	13.50	116.41	14,367,232.125	885,952.493	39.531154961°N	107.675627849°W
1,500.00	13.20	61.07	1,496.12	23.31	134.16	14,367,241.934	885,970.239	39.531183321°N	107.675566015°W
1,600.00	16.20	61.07	1,592.83	35.59	156.36	14,367,254.210	885,992.445	39.531218809°N	107.675488638°W
1,700.00	19.20	61.07	1,688.09	50.29	182.97	14,367,268.917	886,019.050	39.531261329°N	107.675395932°W
1,800.00	22.20	61.07	1,781.62	67.39	213.90	14,367,286.016	886,049.982	39.531310763°N	107.675288149°W
1,900.00	25.20	61.07	1,873.18	86.84	249.07	14,367,305.460	886,085.155	39.531366975°N	107.675165586°W
2,000.00	28.20	61.07	1,962.51	108.57	288.39	14,367,327.196	886,124.474	39.531429813°N	107.675028578°W
2,032.33	29.17	61.07	1,990.87	116.08	301.97	14,367,334.704	886,138.056	39.531451519°N	107.674981251°W
Hold 29° at 2032 MD/1991 TVD									
2,100.00	29.17	61.07	2,049.96	132.04	330.84	14,367,350.660	886,166.921	39.531497649°N	107.674880671°W
2,200.00	29.17	61.07	2,137.27	155.62	373.49	14,367,374.241	886,209.577	39.531565819°N	107.674732033°W
2,300.00	29.17	61.07	2,224.59	179.20	416.15	14,367,397.821	886,252.233	39.531633990°N	107.674583395°W
2,400.00	29.17	61.07	2,311.91	202.78	458.81	14,367,421.401	886,294.889	39.531702161°N	107.674443475°W
2,500.00	29.17	61.07	2,399.23	226.36	501.46	14,367,444.982	886,337.546	39.531770331°N	107.674286117°W
2,600.00	29.17	61.07	2,486.54	249.94	544.12	14,367,468.562	886,380.202	39.531838501°N	107.674137478°W
2,700.00	29.17	61.07	2,573.86	273.52	586.78	14,367,492.143	886,422.858	39.531906671°N	107.673988838°W
2,800.00	29.17	61.07	2,661.18	297.10	629.43	14,367,515.723	886,465.515	39.531974841°N	107.673840199°W
2,900.00	29.17	61.07	2,748.50	320.68	672.09	14,367,539.304	886,508.171	39.532043010°N	107.673691559°W
3,000.00	29.17	61.07	2,835.82	344.26	714.75	14,367,562.884	886,550.827	39.532111180°N	107.673542918°W
3,100.00	29.17	61.07	2,923.13	367.84	757.40	14,367,586.465	886,593.484	39.532179349°N	107.673394277°W
3,200.00	29.17	61.07	3,010.45	391.42	800.06	14,367,610.045	886,636.140	39.532247518°N	107.673245636°W
3,300.00	29.17	61.07	3,097.77	415.00	842.71	14,367,633.625	886,678.796	39.532315687°N	107.673096995°W
3,400.00	29.17	61.07	3,185.09	438.58	885.37	14,367,657.206	886,721.452	39.532383855°N	107.672948353°W
3,500.00	29.17	61.07	3,272.40	462.16	928.03	14,367,680.786	886,764.109	39.532452024°N	107.672799712°W
3,600.00	29.17	61.07	3,359.72	485.75	970.68	14,367,704.367	886,806.765	39.532520192°N	107.672651069°W
3,700.00	29.17	61.07	3,447.04	509.33	1,013.34	14,367,727.947	886,849.421	39.532588360°N	107.672502427°W
3,800.00	29.17	61.07	3,534.36	532.91	1,056.00	14,367,751.528	886,892.078	39.532656528°N	107.672353784°W
3,900.00	29.17	61.07	3,621.68	556.49	1,098.65	14,367,775.108	886,934.734	39.532724696°N	107.672205141°W
4,000.00	29.17	61.07	3,708.99	580.07	1,141.31	14,367,798.688	886,977.390	39.532792863°N	107.672056498°W
4,100.00	29.17	61.07	3,796.31	603.65	1,183.97	14,367,822.269	887,020.046	39.532861031°N	107.671907854°W
4,200.00	29.17	61.07	3,883.63	627.23	1,226.62	14,367,845.849	887,062.703	39.532929198°N	107.671759210°W
4,200.58	29.17	61.07	3,884.13	627.36	1,226.87	14,367,845.985	887,062.948	39.532929590°N	107.671758355°W
Drop 3°/100 at 4201 MD/3884 TVD									
4,300.00	26.19	61.07	3,972.17	649.70	1,267.28	14,367,868.326	887,103.363	39.532994175°N	107.671617522°W
4,391.27	23.45	61.07	4,055.00	668.24	1,300.81	14,367,886.858	887,136.887	39.533047748°N	107.671500701°W
Mesaverde									
4,400.00	23.19	61.07	4,063.02	669.91	1,303.83	14,367,888.530	887,139.912	39.533052582°N	107.671490160°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McPherson A Pad
Company:	Antero Resources	TVD Reference:	KB @ 5472.00ft (Original Well Elev)
Project:	McPherson	MD Reference:	KB @ 5472.00ft (Original Well Elev)
Site:	McPherson A Pad	North Reference:	Grid
Well:	McPherson A07 (111360)	Survey Calculation Method:	Minimum Curvature
Wellbore:	A07		
Design:	A07 P01		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,500.00	20.19	61.07	4,155.93	687.79	1,336.17	14,367,906.407	887,172.249	39.533104259°N	107.671377473°W	
4,600.00	17.19	61.07	4,250.65	703.28	1,364.21	14,367,921.906	887,200.287	39.533149064°N	107.671279770°W	
4,700.00	14.19	61.07	4,346.91	716.36	1,387.87	14,367,934.986	887,223.948	39.533186875°N	107.671197319°W	
4,800.00	11.19	61.07	4,444.46	726.99	1,407.09	14,367,945.610	887,243.167	39.533217588°N	107.671130345°W	
4,900.00	8.19	61.07	4,543.02	735.13	1,421.81	14,367,953.750	887,257.892	39.533241119°N	107.671079033°W	
5,000.00	5.19	61.07	4,642.33	740.76	1,432.00	14,367,959.383	887,268.082	39.533257403°N	107.671043523°W	
5,100.00	2.19	61.07	4,742.11	743.87	1,437.63	14,367,962.494	887,273.709	39.533266396°N	107.671023913°W	
5,172.91	0.00	0.00	4,815.00	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
Vertical at 5173 MD/4815 TVD - Price Coal										
5,200.00	0.00	0.00	4,842.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
5,300.00	0.00	0.00	4,942.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
5,400.00	0.00	0.00	5,042.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
5,500.00	0.00	0.00	5,142.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
5,600.00	0.00	0.00	5,242.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
5,700.00	0.00	0.00	5,342.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
5,800.00	0.00	0.00	5,442.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
5,900.00	0.00	0.00	5,542.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,000.00	0.00	0.00	5,642.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,072.91	0.00	0.00	5,715.00	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
Top Gas										
6,100.00	0.00	0.00	5,742.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,200.00	0.00	0.00	5,842.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,300.00	0.00	0.00	5,942.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,400.00	0.00	0.00	6,042.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,500.00	0.00	0.00	6,142.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,600.00	0.00	0.00	6,242.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,700.00	0.00	0.00	6,342.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,800.00	0.00	0.00	6,442.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
6,897.91	0.00	0.00	6,540.00	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
Cameo										
6,900.00	0.00	0.00	6,542.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,000.00	0.00	0.00	6,642.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,100.00	0.00	0.00	6,742.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,200.00	0.00	0.00	6,842.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,300.00	0.00	0.00	6,942.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,400.00	0.00	0.00	7,042.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,500.00	0.00	0.00	7,142.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,600.00	0.00	0.00	7,242.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,700.00	0.00	0.00	7,342.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,797.91	0.00	0.00	7,440.00	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
Rollins										
7,800.00	0.00	0.00	7,442.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,900.00	0.00	0.00	7,542.09	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
7,947.91	0.00	0.00	7,590.00	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W	
TD at 7948 MD/7590 TVD										

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McPherson A Pad
Company:	Antero Resources	TVD Reference:	KB @ 5472.00ft (Original Well Elev)
Project:	McPherson	MD Reference:	KB @ 5472.00ft (Original Well Elev)
Site:	McPherson A Pad	North Reference:	Grid
Well:	McPherson A07 (111360)	Survey Calculation Method:	Minimum Curvature
Wellbore:	A07		
Design:	A07 P01		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
A07 BH	0.00	360.00	7,590.00	744.55	1,438.85	14,367,963.167	887,274.927	39.533268342°N	107.671019669°W
- plan hits target center									
- Circle (radius 25.00)									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(in)	(in)
1,000.00	1,000.00	Surf Csg at 1000 MD/TVD		5.50	6.00

Formations					
Measured Depth	Vertical Depth	Name		Lithology	Dip Direction
(ft)	(ft)				(°)
4,391.27	4,055.00	Mesaverde			
5,172.91	4,815.00	Price Coal			
6,072.91	5,715.00	Top Gas			
6,897.91	6,540.00	Cameo			
7,797.91	7,440.00	Rollins			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)		
1,060.00	1,060.00	-1.10	89.99	KOP 3°/100 at 1060 MD/TVD	
2,032.33	1,990.87	116.08	301.97	Hold 29° at 2032 MD/1991 TVD	
4,200.58	3,884.13	627.36	1,226.87	Drop 3°/100 at 4201 MD/3884 TVD	
5,172.91	4,815.00	744.55	1,438.85	Vertical at 5173 MD/4815 TVD	
7,947.91	7,590.00	744.55	1,438.85	TD at 7948 MD/7590 TVD	