



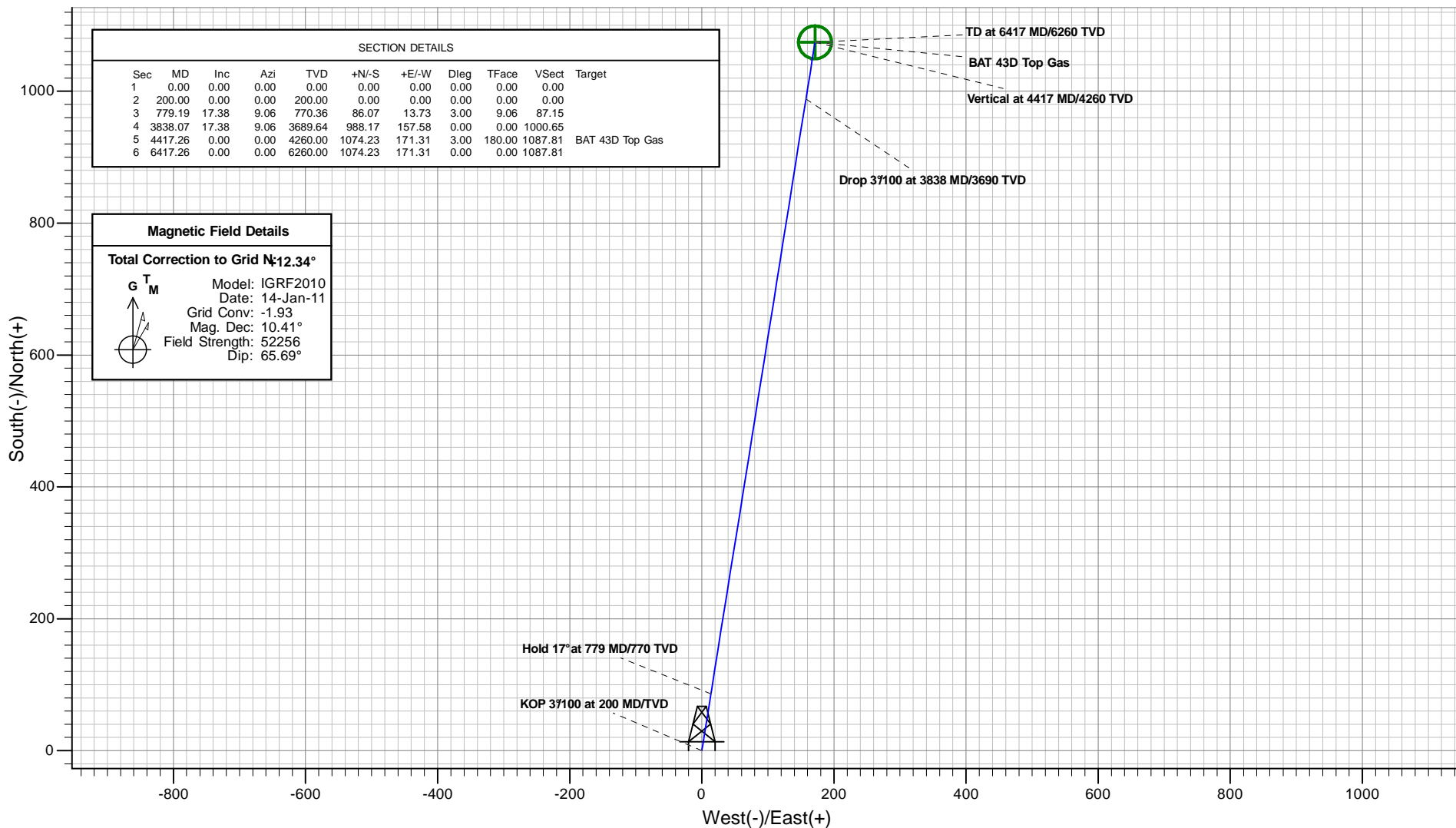
Antero Resources

BAT 43D-18-07-95 (111281)



PLAN VIEW

Project: Monument Ridge
Site: Monument Ridge Pad
Well: BAT 43D-18-07-95 (111281)
Wellbore: BAT 43D
Design: BAT 43D P01



Plan: BAT 43D P01
Created By: ARK Directional Services
Date: 9:52, October 14 2010

PROJECT DETAILS: Monument Ridge

Geodetic System: Universal Transverse Mercator
Datum: NAD83 Colorado - HARN
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well BAT 43D-18-07-95 (111281), Grid North
Vertical (TVD) Reference: KB @ 5465.00ft (Original Well Elev)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: KB @ 5465.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

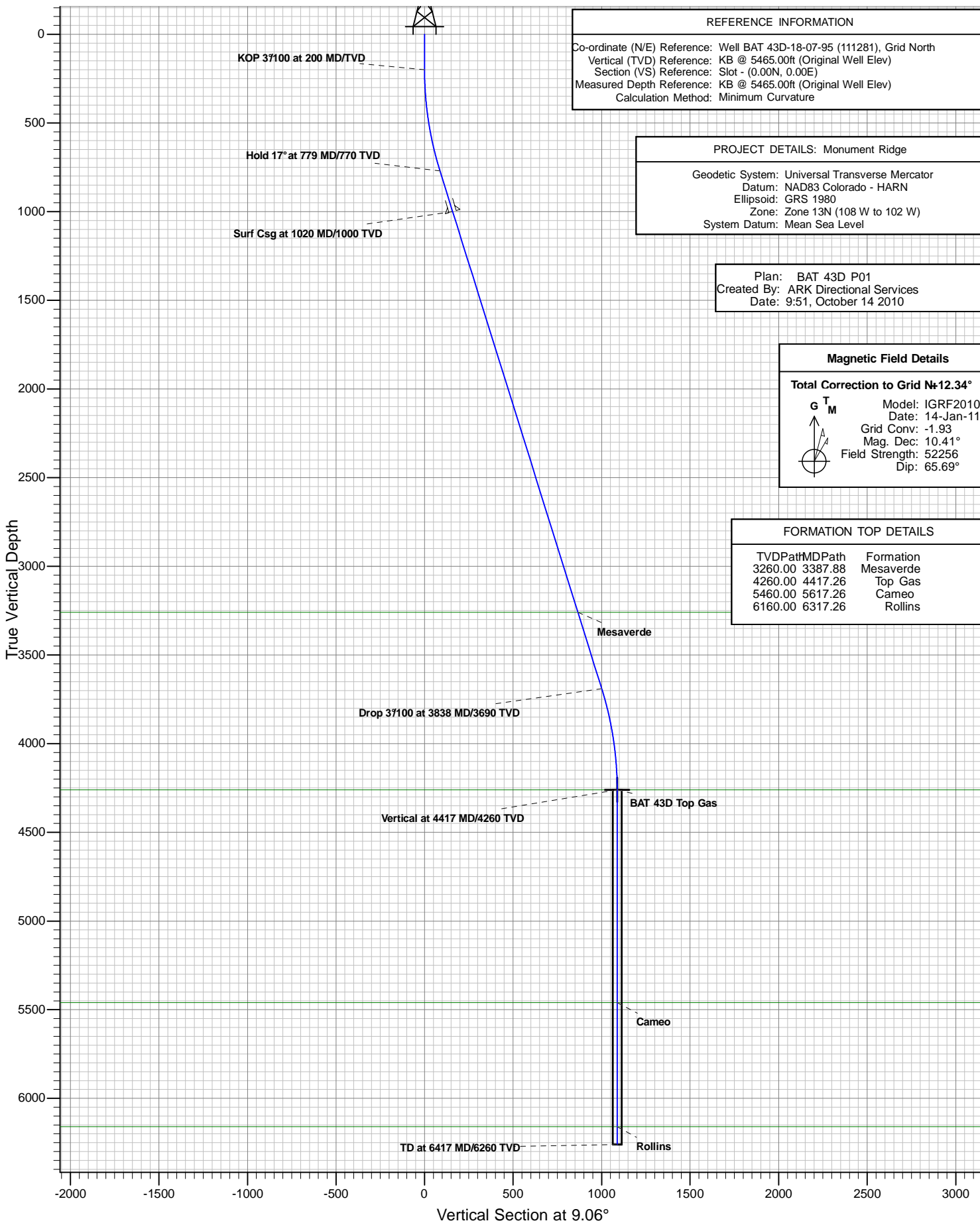


Antero Resources

BAT 43D-18-07-95 (111281)



VERTICAL SECTION VIEW



Antero Resources

Monument Ridge

Monument Ridge Pad

BAT 43D-18-07-95 (111281)

BAT 43D

Plan: BAT 43D P01

Standard Planning Report - Geographic

14 October, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 43D-18-07-95 (111281)
Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 43D-18-07-95 (111281)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 43D		
Design:	BAT 43D P01		

Project	Monument Ridge		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	Monument Ridge Pad		
Site Position:		Northing:	14,334,067.020 usft
From:	Lat/Long	Easting:	783,868.932 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39.431305000°N
		Longitude:	108.033251000°W
		Grid Convergence:	-1.93 °

Well	BAT 43D-18-07-95 (111281)		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	Ground Level:
			5,441.00 ft

Wellbore	BAT 43D				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	2011/01/14	10.41	65.69	52,256

Design	BAT 43D P01				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	4,260.00	0.00	0.00	9.06	

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.00	0.00	0.00	0.00	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	
779.19	17.38	9.06	770.36	86.07	13.73	3.00	3.00	0.00	9.06	
3,838.07	17.38	9.06	3,689.64	988.17	157.58	0.00	0.00	0.00	0.00	
4,417.26	0.00	0.00	4,260.00	1,074.23	171.31	3.00	-3.00	0.00	180.00	BAT 43D Top Gas
6,417.26	0.00	0.00	6,260.00	1,074.23	171.31	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 43D-18-07-95 (111281)
Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 43D-18-07-95 (111281)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 43D		
Design:	BAT 43D 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	0.00	0.00	14,334,054.241	783,891.123	39.431272000°N	108.033171000°W
100.00	0.00	0.00	100.00	0.00	0.00	14,334,054.241	783,891.123	39.431272000°N	108.033171000°W
200.00	0.00	0.00	200.00	0.00	0.00	14,334,054.241	783,891.123	39.431272000°N	108.033171000°W
KOP 3°/100 at 200 MD/TVD									
300.00	3.00	9.06	299.95	2.58	0.41	14,334,056.825	783,891.535	39.431279127°N	108.033169850°W
400.00	6.00	9.06	399.63	10.33	1.65	14,334,064.572	783,892.770	39.431300488°N	108.033166403°W
500.00	9.00	9.06	498.77	23.22	3.70	14,334,077.461	783,894.826	39.431336026°N	108.033160669°W
600.00	12.00	9.06	597.08	41.21	6.57	14,334,095.455	783,897.695	39.431385641°N	108.033152662°W
700.00	15.00	9.06	694.31	64.26	10.25	14,334,118.505	783,901.371	39.431449199°N	108.033142405°W
779.19	17.38	9.06	770.36	86.07	13.73	14,334,140.307	783,904.848	39.431509313°N	108.033132705°W
Hold 17° at 779 MD/770 TVD									
800.00	17.38	9.06	790.21	92.20	14.70	14,334,146.442	783,905.826	39.431526231°N	108.033129975°W
900.00	17.38	9.06	885.65	121.69	19.41	14,334,175.934	783,910.529	39.431607548°N	108.033116852°W
1,000.00	17.38	9.06	981.09	151.18	24.11	14,334,205.425	783,915.232	39.431688864°N	108.033103730°W
1,020.00	17.38	9.06	1,000.17	157.08	25.05	14,334,211.323	783,916.173	39.431705128°N	108.033101105°W
Surf Csg at 1020 MD/1000 TVD									
1,100.00	17.38	9.06	1,076.52	180.68	28.81	14,334,234.916	783,919.935	39.431770181°N	108.033090608°W
1,200.00	17.38	9.06	1,171.96	210.17	33.52	14,334,264.407	783,924.638	39.431851498°N	108.033077485°W
1,300.00	17.38	9.06	1,267.40	239.66	38.22	14,334,293.898	783,929.341	39.431932815°N	108.033064363°W
1,400.00	17.38	9.06	1,362.83	269.15	42.92	14,334,323.389	783,934.044	39.432014131°N	108.033051240°W
1,500.00	17.38	9.06	1,458.27	298.64	47.62	14,334,352.881	783,938.747	39.432095448°N	108.033038118°W
1,600.00	17.38	9.06	1,553.71	328.13	52.33	14,334,382.372	783,943.450	39.432176765°N	108.033024995°W
1,700.00	17.38	9.06	1,649.14	357.62	57.03	14,334,411.863	783,948.153	39.432258082°N	108.033011873°W
1,800.00	17.38	9.06	1,744.58	387.11	61.73	14,334,441.354	783,952.856	39.432339398°N	108.032998750°W
1,900.00	17.38	9.06	1,840.02	416.61	66.44	14,334,470.845	783,957.559	39.432420715°N	108.032985628°W
2,000.00	17.38	9.06	1,935.45	446.10	71.14	14,334,500.336	783,962.262	39.432502032°N	108.032972505°W
2,100.00	17.38	9.06	2,030.89	475.59	75.84	14,334,529.827	783,966.965	39.432583348°N	108.032959382°W
2,200.00	17.38	9.06	2,126.33	505.08	80.55	14,334,559.319	783,971.668	39.432664665°N	108.032946260°W
2,300.00	17.38	9.06	2,221.76	534.57	85.25	14,334,588.810	783,976.371	39.432745982°N	108.032933137°W
2,400.00	17.38	9.06	2,317.20	564.06	89.95	14,334,618.301	783,981.074	39.432827299°N	108.032920014°W
2,500.00	17.38	9.06	2,412.64	593.55	94.65	14,334,647.792	783,985.777	39.432908615°N	108.032906892°W
2,600.00	17.38	9.06	2,508.07	623.04	99.36	14,334,677.283	783,990.480	39.432989932°N	108.032893769°W
2,700.00	17.38	9.06	2,603.51	652.54	104.06	14,334,706.774	783,995.183	39.433071249°N	108.032880646°W
2,800.00	17.38	9.06	2,698.95	682.03	108.76	14,334,736.266	783,999.886	39.433152565°N	108.032867523°W
2,900.00	17.38	9.06	2,794.38	711.52	113.47	14,334,765.757	784,004.589	39.433233882°N	108.032854401°W
3,000.00	17.38	9.06	2,889.82	741.01	118.17	14,334,795.248	784,009.291	39.433315199°N	108.032841278°W
3,100.00	17.38	9.06	2,985.26	770.50	122.87	14,334,824.739	784,013.994	39.433396516°N	108.032828155°W
3,200.00	17.38	9.06	3,080.69	799.99	127.57	14,334,854.230	784,018.697	39.433477832°N	108.032815032°W
3,300.00	17.38	9.06	3,176.13	829.48	132.28	14,334,883.721	784,023.400	39.433559149°N	108.032801909°W
3,387.88	17.38	9.06	3,260.00	855.40	136.41	14,334,909.638	784,027.533	39.433630611°N	108.032790376°W
Mesaverde									
3,400.00	17.38	9.06	3,271.57	858.97	136.98	14,334,913.212	784,028.103	39.433640466°N	108.032788786°W
3,500.00	17.38	9.06	3,367.00	888.46	141.68	14,334,942.704	784,032.806	39.433721782°N	108.032775663°W
3,600.00	17.38	9.06	3,462.44	917.96	146.39	14,334,972.195	784,037.509	39.433803099°N	108.032762540°W
3,700.00	17.38	9.06	3,557.88	947.45	151.09	14,335,001.686	784,042.212	39.433884416°N	108.032749417°W
3,800.00	17.38	9.06	3,653.31	976.94	155.79	14,335,031.177	784,046.915	39.433965732°N	108.032736294°W
3,838.07	17.38	9.06	3,689.64	988.17	157.58	14,335,042.404	784,048.705	39.433966688°N	108.032731299°W
Drop 3°/100 at 3838 MD/3690 TVD									
3,900.00	15.52	9.06	3,749.04	1,005.48	160.34	14,335,059.719	784,051.467	39.434044431°N	108.032723594°W
4,000.00	12.52	9.06	3,846.05	1,029.40	164.16	14,335,083.636	784,055.281	39.434110379°N	108.032712951°W
4,100.00	9.52	9.06	3,944.19	1,048.27	167.17	14,335,102.507	784,058.290	39.434162412°N	108.032704553°W
4,200.00	6.52	9.06	4,043.21	1,062.04	169.36	14,335,116.280	784,060.486	39.434200388°N	108.032698425°W
4,300.00	3.52	9.06	4,142.81	1,070.68	170.74	14,335,124.916	784,061.864	39.434224201°N	108.032694582°W
4,400.00	0.52	9.06	4,242.74	1,074.15	171.30	14,335,128.393	784,062.418	39.434233788°N	108.032693035°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 43D-18-07-95 (111281)
Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 43D-18-07-95 (111281)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 43D		
Design:	BAT 43D 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	
4,417.26	0.00	0.00	4,260.00	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
Vertical at 4417 MD/4260 TVD - Top Gas										
4,500.00	0.00	0.00	4,342.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
4,600.00	0.00	0.00	4,442.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
4,700.00	0.00	0.00	4,542.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
4,800.00	0.00	0.00	4,642.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
4,900.00	0.00	0.00	4,742.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,000.00	0.00	0.00	4,842.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,100.00	0.00	0.00	4,942.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,200.00	0.00	0.00	5,042.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,300.00	0.00	0.00	5,142.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,400.00	0.00	0.00	5,242.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,500.00	0.00	0.00	5,342.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,600.00	0.00	0.00	5,442.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,617.26	0.00	0.00	5,460.00	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
Cameo										
5,700.00	0.00	0.00	5,542.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,800.00	0.00	0.00	5,642.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
5,900.00	0.00	0.00	5,742.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
6,000.00	0.00	0.00	5,842.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
6,100.00	0.00	0.00	5,942.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
6,200.00	0.00	0.00	6,042.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
6,300.00	0.00	0.00	6,142.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
6,317.26	0.00	0.00	6,160.00	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
Rollins										
6,400.00	0.00	0.00	6,242.74	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
6,417.26	0.00	0.00	6,260.00	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
TD at 6417 MD/6260 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BAT 43D Top Gas	0.00	360.00	4,260.00	1,074.23	171.31	14,335,128.470	784,062.430	39.434234000°N	108.032693000°W	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 25.00)										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,020.00	1,000.17	Surf Csg at 1020 MD/1000 TVD	5.50	6.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well BAT 43D-18-07-95 (111281)
Company:	Antero Resources	TVD Reference:	KB @ 5465.00ft (Original Well Elev)
Project:	Monument Ridge	MD Reference:	KB @ 5465.00ft (Original Well Elev)
Site:	Monument Ridge Pad	North Reference:	Grid
Well:	BAT 43D-18-07-95 (111281)	Survey Calculation Method:	Minimum Curvature
Wellbore:	BAT 43D		
Design:	BAT 43D P01		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,387.88	3,260.00	Mesaverde			
4,417.26	4,260.00	Top Gas			
5,617.26	5,460.00	Cameo			
6,317.26	6,160.00	Rollins			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	KOP 3°/100 at 200 MD/TVD	
779.19	770.36	86.07	13.73	Hold 17° at 779 MD/770 TVD	
3,838.07	3,689.64	988.17	157.58	Drop 3°/100 at 3838 MD/3690 TVD	
4,417.26	4,260.00	1,074.23	171.31	Vertical at 4417 MD/4260 TVD	
6,417.26	6,260.00	1,074.23	171.31	TD at 6417 MD/6260 TVD	