



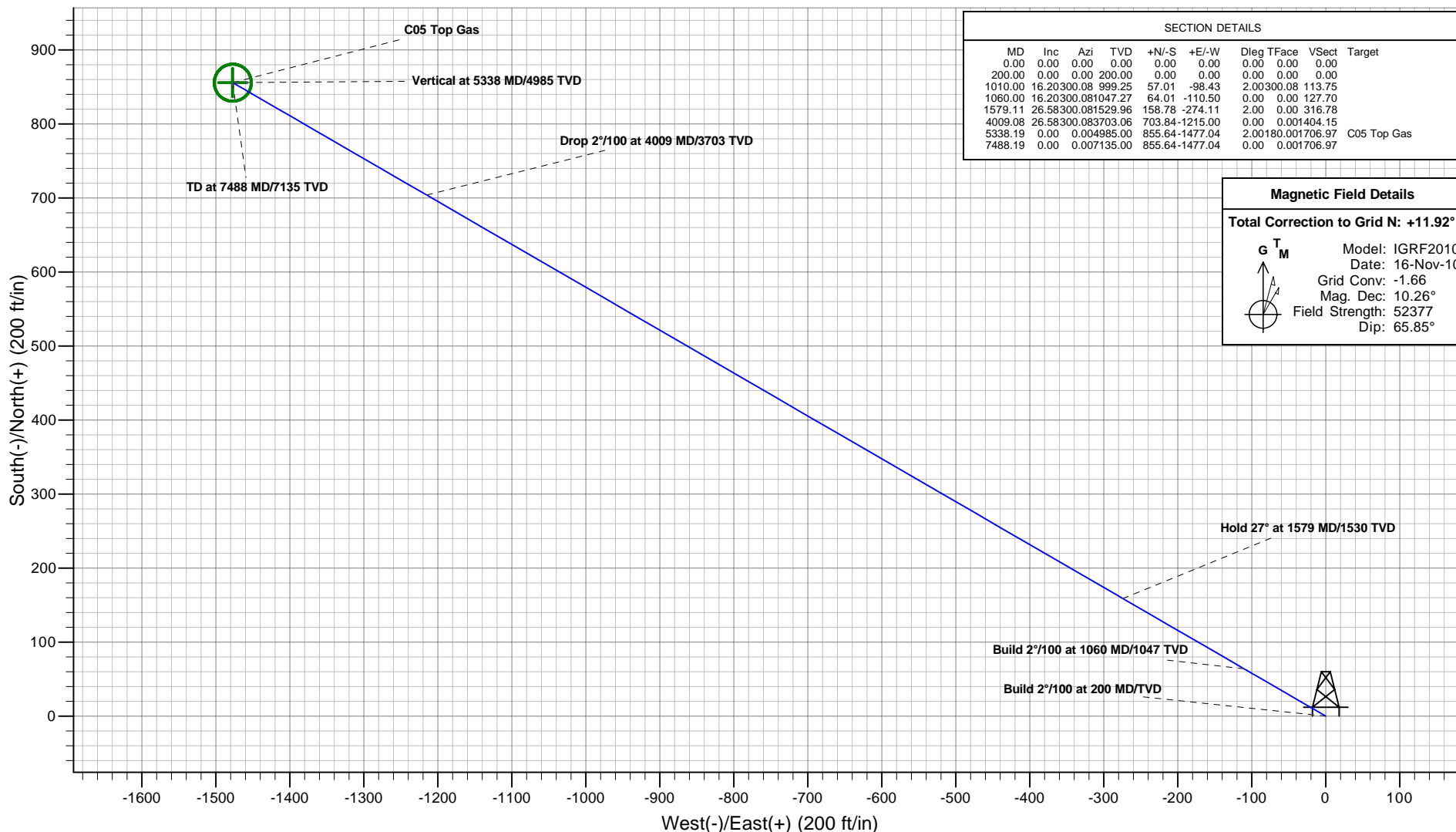
Antero Resources

McLin C05 (111225)



PLAN VIEW

Project: McLin
Site: McLin C
Well: McLin C05 (111225)
Wellbore: McLin C05
Design: McLin C05 P01



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
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	
1010.00	16.20	300.08	999.25	57.01	-98.43	2.00	300.08	113.75	
1060.00	16.20	300.08	1047.27	64.01	-110.50	0.00	0.00	127.70	
1579.11	26.58	300.08	1529.96	158.78	-274.11	2.00	0.00	316.78	
4009.08	26.58	300.08	3703.06	703.84	-1215.00	0.00	0.00	1404.15	
5338.19	0.00	0.00	4985.00	855.64	-1477.04	2.00	180.00	706.97	C05 Top Gas
7488.19	0.00	0.00	7135.00	855.64	-1477.04	0.00	0.00	706.97	

Magnetic Field Details	
Total Correction to Grid N: +11.92°	
	Model: IGRF2010
	Date: 16-Nov-10
	Grid Conv: -1.66
	Mag. Dec: 10.26°
	Field Strength: 52377
	Dip: 65.85°

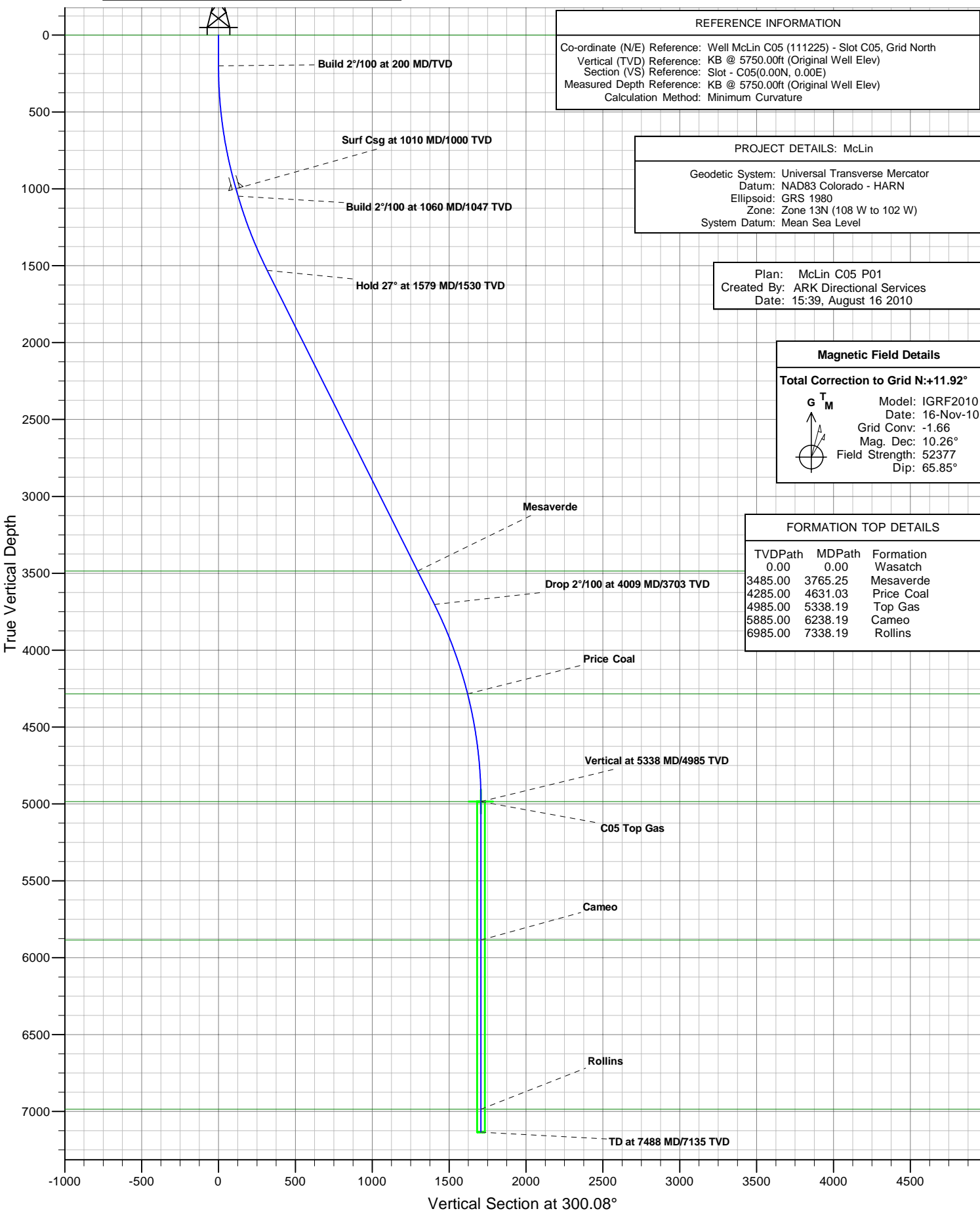
Plan: McLin C05 P01
Created By: ARK Directional Services
Date: 15:46, August 16 2010

PROJECT DETAILS: McLin
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 McLin C05 (111225) - Slot C05, Grid North
Vertical (TVD) Reference: KB @ 5750.00ft (Original Well Elev)
Section (VS) Reference: Slot - C05(0.00N, 0.00E)
Measured Depth Reference: KB @ 5750.00ft (Original Well Elev)
Calculation Method: Minimum Curvature



VERTICAL SECTION VIEW



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well McLin C05 (111225) - Slot C05, Grid North
Vertical (TVD) Reference: KB @ 5750.00ft (Original Well Elev)
Section (VS) Reference: Slot - C05(0.00N, 0.00E)
Measured Depth Reference: KB @ 5750.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

PROJECT DETAILS: McLin

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

Plan: McLin C05 P01
Created By: ARK Directional Services
Date: 15:39, August 16 2010

Magnetic Field Details

Total Correction to Grid N: +11.92°

G^T_M Model: IGRF2010
Date: 16-Nov-10
Grid Conv: -1.66
Mag. Dec: 10.26°
Field Strength: 52377
Dip: 65.85°

FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
0.00	0.00	Wasatch
3485.00	3765.25	Mesaverde
4285.00	4631.03	Price Coal
4985.00	5338.19	Top Gas
5885.00	6238.19	Cameo
6985.00	7338.19	Rollins

Antero Resources

McLin

McLin C

McLin C05 (111225) - Slot C05

McLin C05

Plan: McLin C05 P01

Standard Planning Report - Geographic

16 August, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C05 (111225) - Slot C05
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C05 (111225)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C05		
Design:	McLin C05 P01		

Project	McLin		
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	McLin C		
Site Position:		Northing:	14,364,522.752 usft
From:	Map	Easting:	905,235.880 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39.525275157°N
		Longitude:	107.607030464°W
		Grid Convergence:	-1.66 °

Well	McLin C05 (111225) - Slot C05		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	McLin C05				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	2010/11/16	10.26	65.85	52,377

Design	McLin C05 P01			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	300.08

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	
1,010.00	16.20	300.08	999.25	57.01	-98.43	2.00	2.00	0.00	300.08	
1,060.00	16.20	300.08	1,047.27	64.01	-110.50	0.00	0.00	0.00	0.00	
1,579.11	26.58	300.08	1,529.96	158.78	-274.11	2.00	2.00	0.00	0.00	
4,009.08	26.58	300.08	3,703.06	703.84	-1,215.00	0.00	0.00	0.00	0.00	
5,338.19	0.00	0.00	4,985.00	855.64	-1,477.04	2.00	-2.00	0.00	180.00	C05 Top Gas
7,488.19	0.00	0.00	7,135.00	855.64	-1,477.04	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C05 (111225) - Slot C05
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C05 (111225)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C05		
Design:	McLin C05 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	14,364,532.634	905,215.666	39.525300662°N	107.607103090°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,364,532.634	905,215.666	39.525300662°N	107.607103090°W
200.00	0.00	0.00	200.00	0.00	0.00	14,364,532.634	905,215.666	39.525300662°N	107.607103090°W
Build 2°/100 at 200 MD/TVD									
300.00	2.00	300.08	299.98	0.87	-1.51	14,364,533.508	905,214.156	39.525302942°N	107.607108530°W
400.00	4.00	300.08	399.84	3.50	-6.04	14,364,536.131	905,209.627	39.525309778°N	107.607124842°W
500.00	6.00	300.08	499.45	7.87	-13.58	14,364,540.499	905,202.086	39.525321163°N	107.607152007°W
600.00	8.00	300.08	598.70	13.97	-24.13	14,364,546.607	905,191.541	39.525337082°N	107.607189992°W
700.00	10.00	300.08	697.47	21.81	-37.66	14,364,554.448	905,178.005	39.525357516°N	107.607238750°W
800.00	12.00	300.08	795.62	31.38	-54.17	14,364,564.011	905,161.495	39.525382440°N	107.607298223°W
900.00	14.00	300.08	893.06	42.65	-73.64	14,364,575.285	905,142.030	39.525411823°N	107.607368337°W
1,000.00	16.00	300.08	989.64	55.62	-96.03	14,364,588.256	905,119.635	39.525445631°N	107.607449007°W
1,010.00	16.20	300.08	999.25	57.01	-98.43	14,364,589.646	905,117.235	39.525449254°N	107.607457651°W
Surf Csg at 1010 MD/1000 TVD									
1,060.00	16.20	300.08	1,047.27	64.01	-110.50	14,364,596.639	905,105.165	39.525467478°N	107.607501131°W
Build 2°/100 at 1060 MD/1047 TVD									
1,100.00	17.00	300.08	1,085.60	69.73	-120.39	14,364,602.367	905,095.277	39.525482407°N	107.607536749°W
1,200.00	19.00	300.08	1,180.70	85.22	-147.13	14,364,617.856	905,068.539	39.525522777°N	107.607633062°W
1,300.00	21.00	300.08	1,274.66	102.37	-176.72	14,364,634.999	905,038.946	39.525567457°N	107.607739662°W
1,400.00	23.00	300.08	1,367.38	121.14	-209.13	14,364,653.776	905,006.533	39.525616395°N	107.607856418°W
1,500.00	25.00	300.08	1,458.73	141.53	-244.33	14,364,674.163	904,971.340	39.525669529°N	107.607983189°W
1,579.11	26.58	300.08	1,529.95	158.78	-274.11	14,364,691.416	904,941.558	39.525714495°N	107.608090470°W
Hold 27° at 1579 MD/1530 TVD									
1,600.00	26.58	300.08	1,548.64	163.47	-282.20	14,364,696.102	904,933.469	39.525726708°N	107.608119607°W
1,700.00	26.58	300.08	1,638.07	185.90	-320.92	14,364,718.533	904,894.749	39.525785168°N	107.608259085°W
1,800.00	26.58	300.08	1,727.49	208.33	-359.64	14,364,740.963	904,856.028	39.525843628°N	107.608398563°W
1,900.00	26.58	300.08	1,816.92	230.76	-398.36	14,364,763.394	904,817.308	39.525902088°N	107.608538041°W
2,000.00	26.58	300.08	1,906.35	253.19	-437.08	14,364,785.825	904,778.588	39.525960548°N	107.608677519°W
2,100.00	26.58	300.08	1,995.78	275.62	-475.80	14,364,808.255	904,739.868	39.526019008°N	107.608816997°W
2,200.00	26.58	300.08	2,085.21	298.05	-514.52	14,364,830.686	904,701.147	39.526077467°N	107.608956476°W
2,300.00	26.58	300.08	2,174.64	320.48	-553.24	14,364,853.117	904,662.427	39.526135926°N	107.609095955°W
2,400.00	26.58	300.08	2,264.07	342.91	-591.96	14,364,875.547	904,623.707	39.526194385°N	107.609235434°W
2,500.00	26.58	300.08	2,353.50	365.35	-630.68	14,364,897.978	904,584.986	39.526252844°N	107.609374914°W
2,600.00	26.58	300.08	2,442.93	387.78	-669.40	14,364,920.409	904,546.266	39.526311303°N	107.609514393°W
2,700.00	26.58	300.08	2,532.36	410.21	-708.12	14,364,942.839	904,507.546	39.526369761°N	107.609653873°W
2,800.00	26.58	300.08	2,621.79	432.64	-746.84	14,364,965.270	904,468.826	39.526428220°N	107.609793353°W
2,900.00	26.58	300.08	2,711.22	455.07	-785.56	14,364,987.701	904,430.105	39.526486678°N	107.609932834°W
3,000.00	26.58	300.08	2,800.65	477.50	-824.28	14,365,010.131	904,391.385	39.526545136°N	107.610072314°W
3,100.00	26.58	300.08	2,890.08	499.93	-863.00	14,365,032.562	904,352.665	39.526603594°N	107.610211795°W
3,200.00	26.58	300.08	2,979.50	522.36	-901.72	14,365,054.993	904,313.944	39.526662051°N	107.610351276°W
3,300.00	26.58	300.08	3,068.93	544.79	-940.44	14,365,077.424	904,275.224	39.526720509°N	107.610490757°W
3,400.00	26.58	300.08	3,158.36	567.22	-979.16	14,365,099.854	904,236.504	39.526778966°N	107.610630239°W
3,500.00	26.58	300.08	3,247.79	589.65	-1,017.88	14,365,122.285	904,197.784	39.526837423°N	107.610769720°W
3,600.00	26.58	300.08	3,337.22	612.08	-1,056.60	14,365,144.716	904,159.063	39.526895880°N	107.610909202°W
3,700.00	26.58	300.08	3,426.65	634.51	-1,095.33	14,365,167.146	904,120.343	39.526954337°N	107.611048684°W
3,765.25	26.58	300.08	3,485.00	649.15	-1,120.59	14,365,181.781	904,095.079	39.526992478°N	107.611139691°W
Mesaverde									
3,800.00	26.58	300.08	3,516.08	656.94	-1,134.05	14,365,189.577	904,081.623	39.527012794°N	107.611188167°W
3,900.00	26.58	300.08	3,605.51	679.38	-1,172.77	14,365,212.008	904,042.902	39.527071250°N	107.611327649°W
4,000.00	26.58	300.08	3,694.94	701.81	-1,211.49	14,365,234.438	904,004.182	39.527129706°N	107.611467132°W
4,009.08	26.58	300.08	3,703.06	703.84	-1,215.00	14,365,236.475	904,000.666	39.527135014°N	107.611479797°W
Drop 2°/100 at 4009 MD/3703 TVD									
4,100.00	24.76	300.08	3,785.00	723.59	-1,249.08	14,365,256.219	903,966.584	39.527186468°N	107.611602572°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C05 (111225) - Slot C05
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C05 (111225)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C05		
Design:	McLin C05 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	
4,200.00	22.76	300.08	3,876.52	743.78	-1,283.95	14,365,276.417	903,931.717	39.527239106°N	107.611728174°W	
4,300.00	20.76	300.08	3,969.38	762.37	-1,316.03	14,365,295.002	903,899.636	39.527287540°N	107.611843743°W	
4,400.00	18.76	300.08	4,063.49	779.32	-1,345.29	14,365,311.951	903,870.378	39.527331710°N	107.611949140°W	
4,500.00	16.76	300.08	4,158.72	794.61	-1,371.69	14,365,327.244	903,843.979	39.527371563°N	107.612044235°W	
4,600.00	14.76	300.08	4,254.95	808.23	-1,395.20	14,365,340.861	903,820.473	39.527407050°N	107.612128914°W	
4,631.03	14.14	300.08	4,285.00	812.11	-1,401.90	14,365,344.744	903,813.771	39.527417168°N	107.612153057°W	
Price Coal										
4,700.00	12.76	300.08	4,352.07	820.15	-1,415.78	14,365,352.787	903,799.887	39.527438129°N	107.612203072°W	
4,800.00	10.76	300.08	4,449.97	830.37	-1,433.42	14,365,363.006	903,782.246	39.527464760°N	107.612266619°W	
4,900.00	8.76	300.08	4,548.51	838.87	-1,448.10	14,365,371.506	903,767.573	39.527486913°N	107.612319479°W	
5,000.00	6.76	300.08	4,647.59	845.65	-1,459.78	14,365,378.277	903,755.884	39.527504559°N	107.612361585°W	
5,100.00	4.76	300.08	4,747.08	850.68	-1,468.47	14,365,383.311	903,747.195	39.527517677°N	107.612392888°W	
5,200.00	2.76	300.08	4,846.86	853.97	-1,474.15	14,365,386.602	903,741.515	39.527526252°N	107.612413349°W	
5,300.00	0.76	300.08	4,946.81	855.51	-1,476.82	14,365,388.144	903,738.852	39.527530272°N	107.612422943°W	
5,338.19	0.00	0.00	4,985.00	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
Vertical at 5338 MD/4985 TVD - Top Gas										
5,400.00	0.00	0.00	5,046.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
5,500.00	0.00	0.00	5,146.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
5,600.00	0.00	0.00	5,246.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
5,700.00	0.00	0.00	5,346.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
5,800.00	0.00	0.00	5,446.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
5,900.00	0.00	0.00	5,546.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,000.00	0.00	0.00	5,646.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,100.00	0.00	0.00	5,746.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,200.00	0.00	0.00	5,846.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,238.19	0.00	0.00	5,885.00	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
Cameo										
6,300.00	0.00	0.00	5,946.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,400.00	0.00	0.00	6,046.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,500.00	0.00	0.00	6,146.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,600.00	0.00	0.00	6,246.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,700.00	0.00	0.00	6,346.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,800.00	0.00	0.00	6,446.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
6,900.00	0.00	0.00	6,546.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
7,000.00	0.00	0.00	6,646.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
7,100.00	0.00	0.00	6,746.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
7,200.00	0.00	0.00	6,846.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
7,300.00	0.00	0.00	6,946.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
7,338.19	0.00	0.00	6,985.00	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
Rollins										
7,400.00	0.00	0.00	7,046.81	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
7,488.19	0.00	0.00	7,135.00	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
TD at 7488 MD/7135 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
C05 Top Gas	0.00	0.00	4,985.00	855.64	-1,477.04	14,365,388.272	903,738.631	39.527530605°N	107.612423736°W	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 25.00)										

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C05 (111225) - Slot C05
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C05 (111225)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C05		
Design:	McLin C05 P01		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,010.00	999.25	Surf Csg at 1010 MD/1000 TVD	5.50	6.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.00	0.00	Wasatch				
3,765.25	3,485.00	Mesaverde				
4,631.03	4,285.00	Price Coal				
5,338.19	4,985.00	Top Gas				
6,238.19	5,885.00	Cameo				
7,338.19	6,985.00	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	Build 2°/100 at 200 MD/TVD	
1,060.00	1,047.27	64.01	-110.50	Build 2°/100 at 1060 MD/1047 TVD	
1,579.11	1,529.95	158.78	-274.11	Hold 27° at 1579 MD/1530 TVD	
4,009.08	3,703.06	703.84	-1,215.00	Drop 2°/100 at 4009 MD/3703 TVD	
5,338.19	4,985.00	855.64	-1,477.04	Vertical at 5338 MD/4985 TVD	
7,488.19	7,135.00	855.64	-1,477.04	TD at 7488 MD/7135 TVD	