



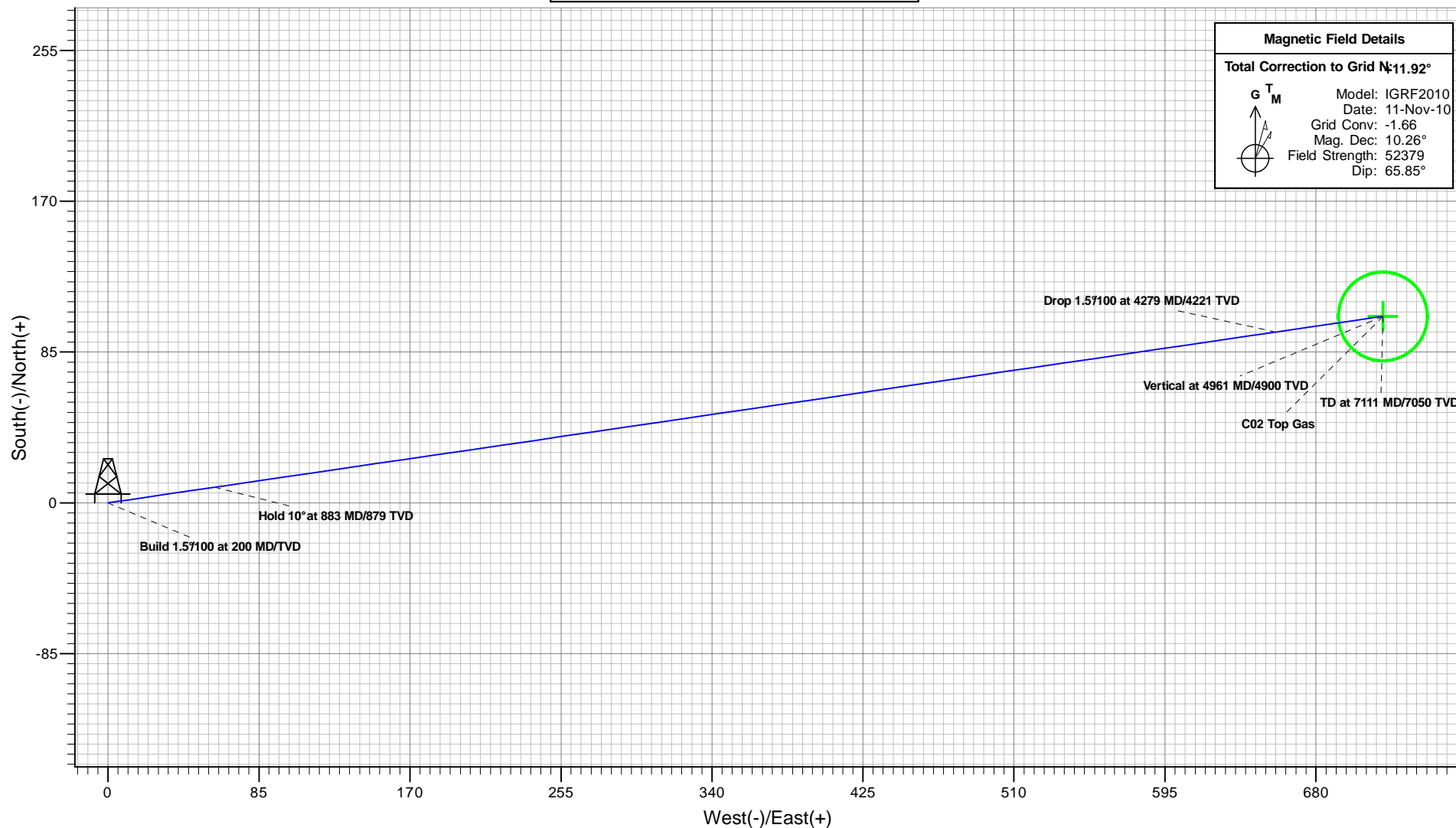
Antero Resources



McLin C02

PLAN VIEW

Project: McLin
Site: McLin C
Well: McLin C02 (111201)
Wellbore: McLin C02
Design: McLin C02 P01



Plan: McLin C02 P01
Created By: ARK Directional Services
Date: 9:49, August 12 2010

PROJECT DETAILS: McLin

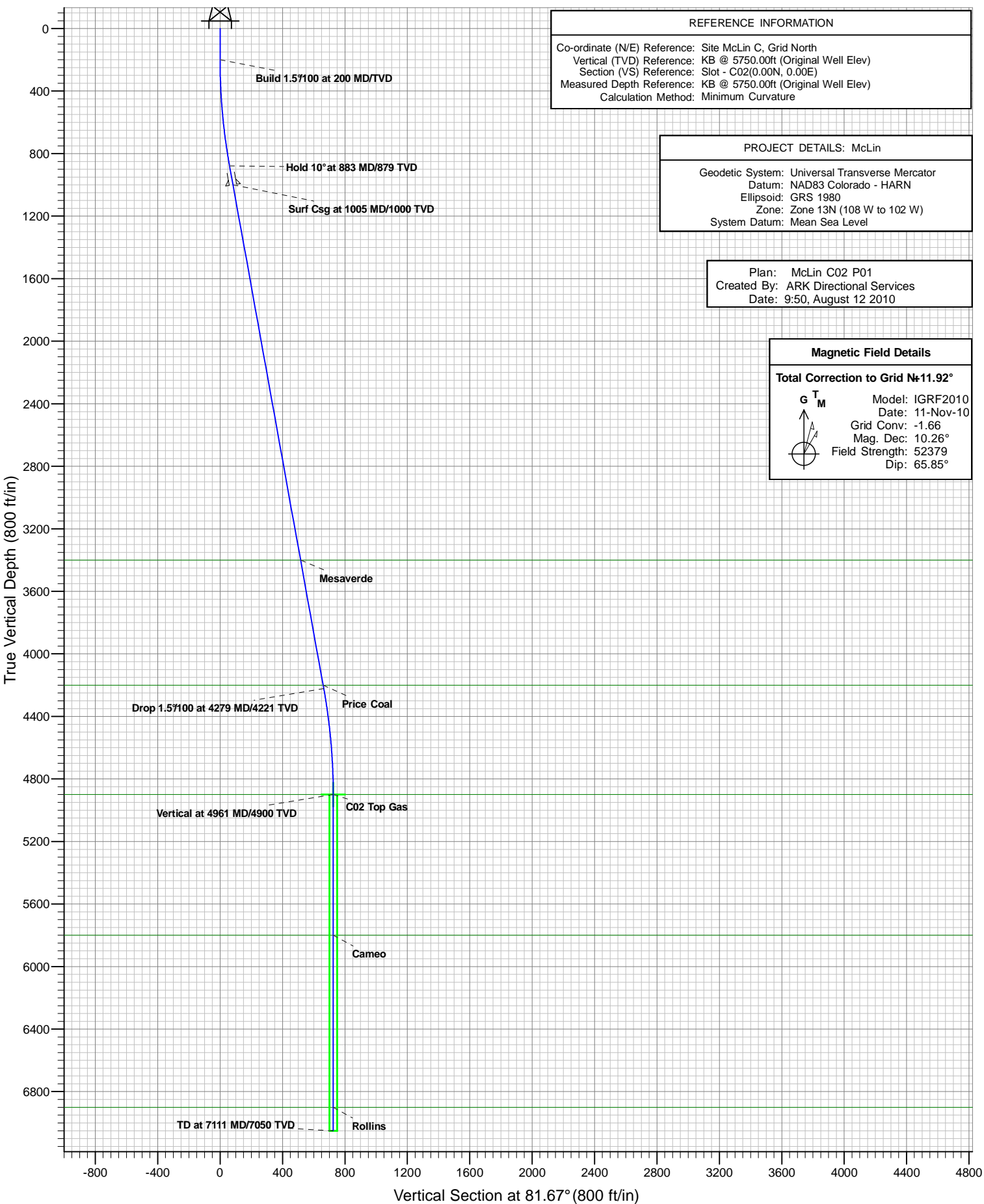
Geodetic System: Universal Transverse Mercator
Datum: NAD83 Colorado - HARN
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Site McLin C, Grid North
Vertical (TVD) Reference: KB @ 5750.00ft (Original Well Elev)
Section (VS) Reference: Slot - C02(0.00N, 0.00E)
Measured Depth Reference: KB @ 5750.00ft (Original Well Elev)
Calculation Method: Minimum Curvature



VERTICAL SECTION VIEW



Antero Resources

McLin

McLin C

McLin C02 (111201) - Slot C02

McLin C02

Plan: McLin C02 P01

Standard Planning Report - Geographic

12 August, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McLin C
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 C02 (111201)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C02		
Design:	McLin C02 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 C02 (111201) - Slot C02		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft		Wellhead Elevation:
			Ground Level:
			5,726.00 ft

Wellbore	McLin C02				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	2010/11/11	10.26	65.85	52,379

Design	McLin C02 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	81.67	

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	
882.55	10.24	81.67	878.92	8.82	60.18	1.50	1.50	0.00	81.67	
4,278.78	10.24	81.67	4,221.08	96.31	657.45	0.00	0.00	0.00	0.00	
4,961.33	0.00	0.00	4,900.00	105.13	717.63	1.50	-1.50	0.00	180.00	C02 Top Gas
7,111.33	0.00	0.00	7,050.00	105.13	717.63	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McLin C
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 C02 (111201)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C02		
Design:	McLin C02 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	14,364,522.752	905,235.880	39.525275157°N	107.607030464°W
100.00	0.00	0.00	100.00	0.00	0.00	14,364,522.752	905,235.880	39.525275157°N	107.607030464°W
200.00	0.00	0.00	200.00	0.00	0.00	14,364,522.752	905,235.880	39.525275157°N	107.607030464°W
Build 1.5°/100 at 200 MD/TVD									
300.00	1.50	81.67	299.99	0.19	1.30	14,364,522.941	905,237.175	39.525275781°N	107.607025895°W
400.00	3.00	81.67	399.91	0.76	5.18	14,364,523.510	905,241.060	39.525277651°N	107.607012193°W
500.00	4.50	81.67	499.69	1.71	11.65	14,364,524.458	905,247.531	39.525280766°N	107.606989365°W
600.00	6.00	81.67	599.27	3.03	20.70	14,364,525.785	905,256.584	39.525285125°N	107.606957429°W
700.00	7.50	81.67	698.57	4.74	32.33	14,364,527.488	905,268.213	39.525290723°N	107.606916405°W
800.00	9.00	81.67	797.54	6.82	46.53	14,364,529.568	905,282.410	39.525297558°N	107.606866322°W
882.55	10.24	81.67	878.92	8.82	60.18	14,364,531.567	905,296.058	39.525304128°N	107.606818177°W
Hold 10° at 883 MD/879 TVD									
900.00	10.24	81.67	896.10	9.27	63.25	14,364,532.017	905,299.127	39.525305606°N	107.606807352°W
1,000.00	10.24	81.67	994.50	11.84	80.83	14,364,534.593	905,316.713	39.525314072°N	107.606745314°W
1,005.00	10.24	81.67	999.42	11.97	81.71	14,364,534.722	905,317.593	39.525314495°N	107.606742212°W
Surf Csg at 1005 MD/1000 TVD									
1,100.00	10.24	81.67	1,092.91	14.42	98.42	14,364,537.170	905,334.300	39.525322538°N	107.606683275°W
1,200.00	10.24	81.67	1,191.32	16.99	116.01	14,364,539.746	905,351.886	39.525331004°N	107.606621237°W
1,300.00	10.24	81.67	1,289.73	19.57	133.59	14,364,542.322	905,369.473	39.525339471°N	107.606559199°W
1,400.00	10.24	81.67	1,388.13	22.15	151.18	14,364,544.899	905,387.059	39.525347937°N	107.606497161°W
1,500.00	10.24	81.67	1,486.54	24.72	168.77	14,364,547.475	905,404.645	39.525356403°N	107.606435123°W
1,600.00	10.24	81.67	1,584.95	27.30	186.35	14,364,550.051	905,422.232	39.525364869°N	107.606373084°W
1,700.00	10.24	81.67	1,683.36	29.88	203.94	14,364,552.627	905,439.818	39.525373335°N	107.606311046°W
1,800.00	10.24	81.67	1,781.77	32.45	221.52	14,364,555.204	905,457.404	39.525381801°N	107.606249008°W
1,900.00	10.24	81.67	1,880.17	35.03	239.11	14,364,557.780	905,474.991	39.525390267°N	107.606186969°W
2,000.00	10.24	81.67	1,978.58	37.60	256.70	14,364,560.356	905,492.577	39.525398733°N	107.606124931°W
2,100.00	10.24	81.67	2,076.99	40.18	274.28	14,364,562.933	905,510.164	39.525407199°N	107.606062893°W
2,200.00	10.24	81.67	2,175.40	42.76	291.87	14,364,565.509	905,527.750	39.525415665°N	107.606000854°W
2,300.00	10.24	81.67	2,273.80	45.33	309.46	14,364,568.085	905,545.336	39.525424131°N	107.605938816°W
2,400.00	10.24	81.67	2,372.21	47.91	327.04	14,364,570.662	905,562.923	39.525432597°N	107.605876777°W
2,500.00	10.24	81.67	2,470.62	50.49	344.63	14,364,573.238	905,580.509	39.525441062°N	107.605814739°W
2,600.00	10.24	81.67	2,569.03	53.06	362.22	14,364,575.814	905,598.095	39.525449528°N	107.605752701°W
2,700.00	10.24	81.67	2,667.43	55.64	379.80	14,364,578.390	905,615.682	39.525457994°N	107.605690662°W
2,800.00	10.24	81.67	2,765.84	58.22	397.39	14,364,580.967	905,633.268	39.525466460°N	107.605628624°W
2,900.00	10.24	81.67	2,864.25	60.79	414.98	14,364,583.543	905,650.854	39.525474925°N	107.605566585°W
3,000.00	10.24	81.67	2,962.66	63.37	432.56	14,364,586.119	905,668.441	39.525483391°N	107.605504547°W
3,100.00	10.24	81.67	3,061.07	65.94	450.15	14,364,588.696	905,686.027	39.525491857°N	107.605442508°W
3,200.00	10.24	81.67	3,159.47	68.52	467.73	14,364,591.272	905,703.614	39.525500322°N	107.605380470°W
3,300.00	10.24	81.67	3,257.88	71.10	485.32	14,364,593.848	905,721.200	39.525508788°N	107.605318431°W
3,400.00	10.24	81.67	3,356.29	73.67	502.91	14,364,596.425	905,738.786	39.525517253°N	107.605256393°W
3,444.42	10.24	81.67	3,400.00	74.82	510.72	14,364,597.569	905,746.598	39.525521014°N	107.605228836°W
Mesaverde									
3,500.00	10.24	81.67	3,454.70	76.25	520.49	14,364,599.001	905,756.373	39.525525719°N	107.605194354°W
3,600.00	10.24	81.67	3,553.10	78.83	538.08	14,364,601.577	905,773.959	39.525534184°N	107.605132315°W
3,700.00	10.24	81.67	3,651.51	81.40	555.67	14,364,604.153	905,791.545	39.525542650°N	107.605070277°W
3,800.00	10.24	81.67	3,749.92	83.98	573.25	14,364,606.730	905,809.132	39.525551115°N	107.605008238°W
3,900.00	10.24	81.67	3,848.33	86.55	590.84	14,364,609.306	905,826.718	39.525559580°N	107.604946199°W
4,000.00	10.24	81.67	3,946.74	89.13	608.43	14,364,611.882	905,844.304	39.525568046°N	107.604884161°W
4,100.00	10.24	81.67	4,045.14	91.71	626.01	14,364,614.459	905,861.891	39.525576511°N	107.604822122°W
4,200.00	10.24	81.67	4,143.55	94.28	643.60	14,364,617.035	905,879.477	39.525584976°N	107.604760083°W
4,257.36	10.24	81.67	4,200.00	95.76	653.69	14,364,618.513	905,889.565	39.525589832°N	107.604724496°W
Price Coal									
4,278.78	10.24	81.67	4,221.08	96.31	657.45	14,364,619.065	905,893.332	39.525591645°N	107.604711209°W
Drop 1.5°/100 at 4279 MD/4221 TVD									

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McLin C
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 C02 (111201)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C02		
Design:	McLin C02 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
4,300.00	9.92	81.67	4,241.97	96.85	661.13	14,364,619.603	905,897.006	39.525593414°N	107.604698247°W
4,400.00	8.42	81.67	4,340.69	99.16	676.90	14,364,621.913	905,912.774	39.525601004°N	107.604642624°W
4,500.00	6.92	81.67	4,439.79	101.10	690.10	14,364,623.847	905,925.979	39.525607360°N	107.604596041°W
4,600.00	5.42	81.67	4,539.21	102.65	700.73	14,364,625.405	905,936.613	39.525612479°N	107.604558528°W
4,700.00	3.92	81.67	4,638.87	103.83	708.79	14,364,626.585	905,944.668	39.525616356°N	107.604530111°W
4,800.00	2.42	81.67	4,738.72	104.64	714.26	14,364,627.387	905,950.140	39.525618989°N	107.604510810°W
4,900.00	0.92	81.67	4,838.67	105.06	717.14	14,364,627.809	905,953.023	39.525620377°N	107.604500639°W
4,961.33	0.00	0.00	4,900.00	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
Vertical at 4961 MD/4900 TVD - Top Gas - C02 Top Gas									
5,000.00	0.00	0.00	4,938.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,100.00	0.00	0.00	5,038.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,200.00	0.00	0.00	5,138.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,300.00	0.00	0.00	5,238.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,400.00	0.00	0.00	5,338.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,500.00	0.00	0.00	5,438.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,600.00	0.00	0.00	5,538.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,700.00	0.00	0.00	5,638.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,800.00	0.00	0.00	5,738.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
5,861.33	0.00	0.00	5,800.00	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
Cameo									
5,900.00	0.00	0.00	5,838.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,000.00	0.00	0.00	5,938.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,100.00	0.00	0.00	6,038.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,200.00	0.00	0.00	6,138.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,300.00	0.00	0.00	6,238.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,400.00	0.00	0.00	6,338.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,500.00	0.00	0.00	6,438.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,600.00	0.00	0.00	6,538.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,700.00	0.00	0.00	6,638.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,800.00	0.00	0.00	6,738.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,900.00	0.00	0.00	6,838.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
6,961.33	0.00	0.00	6,900.00	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
Rollins									
7,000.00	0.00	0.00	6,938.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
7,100.00	0.00	0.00	7,038.67	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
7,111.33	0.00	0.00	7,050.00	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
TD at 7111 MD/7050 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
C02 Top Gas	0.00	360.00	4,900.00	105.13	717.63	14,364,627.880	905,953.510	39.525620612°N	107.604498920°W
- plan hits target center									
- Circle (radius 25.00)									

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Site McLin C
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 C02 (111201)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C02		
Design:	McLin C02 P01		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,005.00	999.42	Surf Csg at 1005 MD/1000 TVD	5.50	6.00	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,444.42	3,400.00	Mesaverde			
4,257.36	4,200.00	Price Coal			
4,961.33	4,900.00	Top Gas			
5,861.33	5,800.00	Cameo			
6,961.33	6,900.00	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 1.5°/100 at 200 MD/TVD	
882.55	878.92	8.82	60.18	Hold 10° at 883 MD/879 TVD	
4,278.78	4,221.08	96.31	657.45	Drop 1.5°/100 at 4279 MD/4221 TVD	
4,961.33	4,900.00	105.13	717.63	Vertical at 4961 MD/4900 TVD	
7,111.33	7,050.00	105.13	717.63	TD at 7111 MD/7050 TVD	