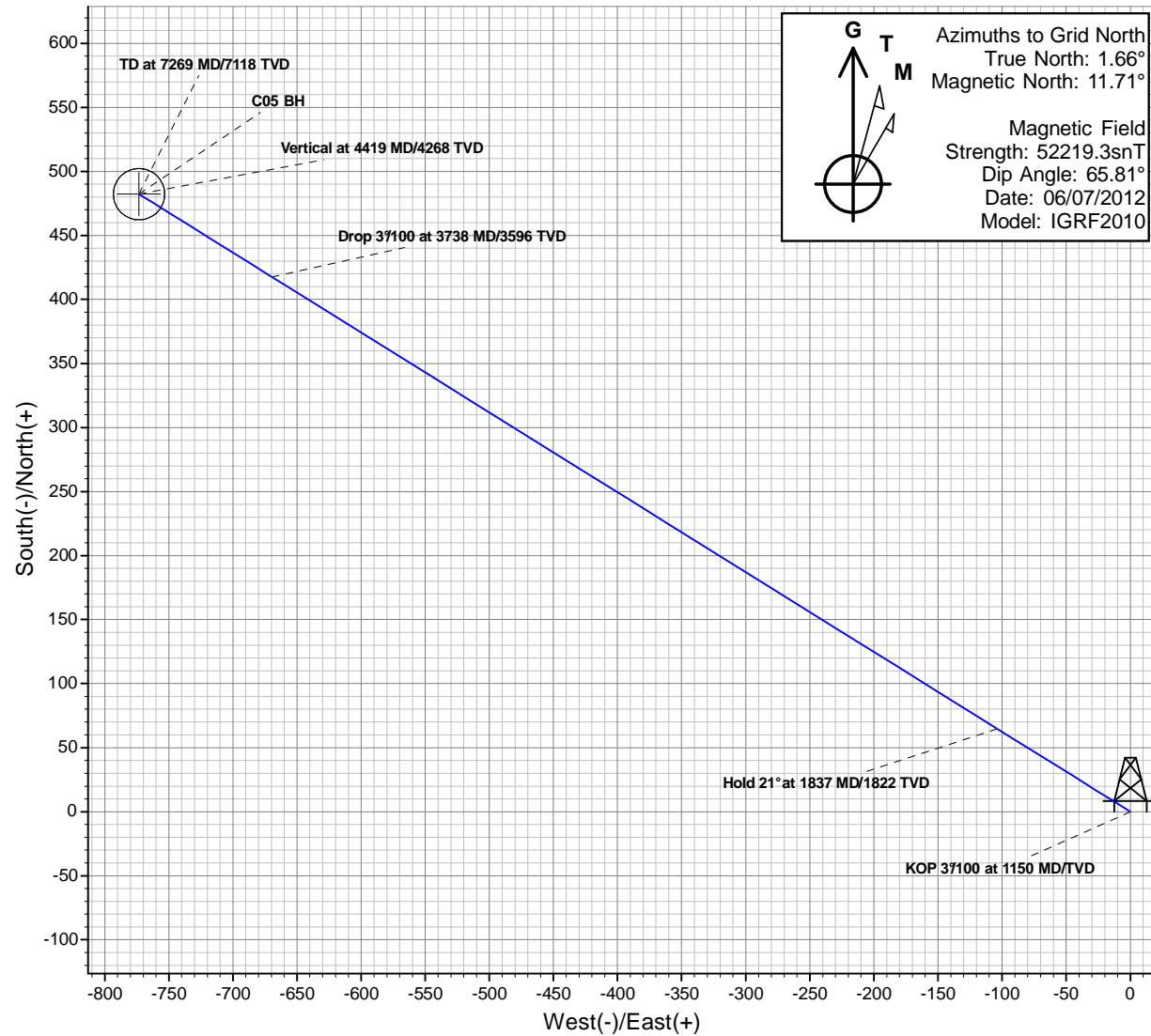
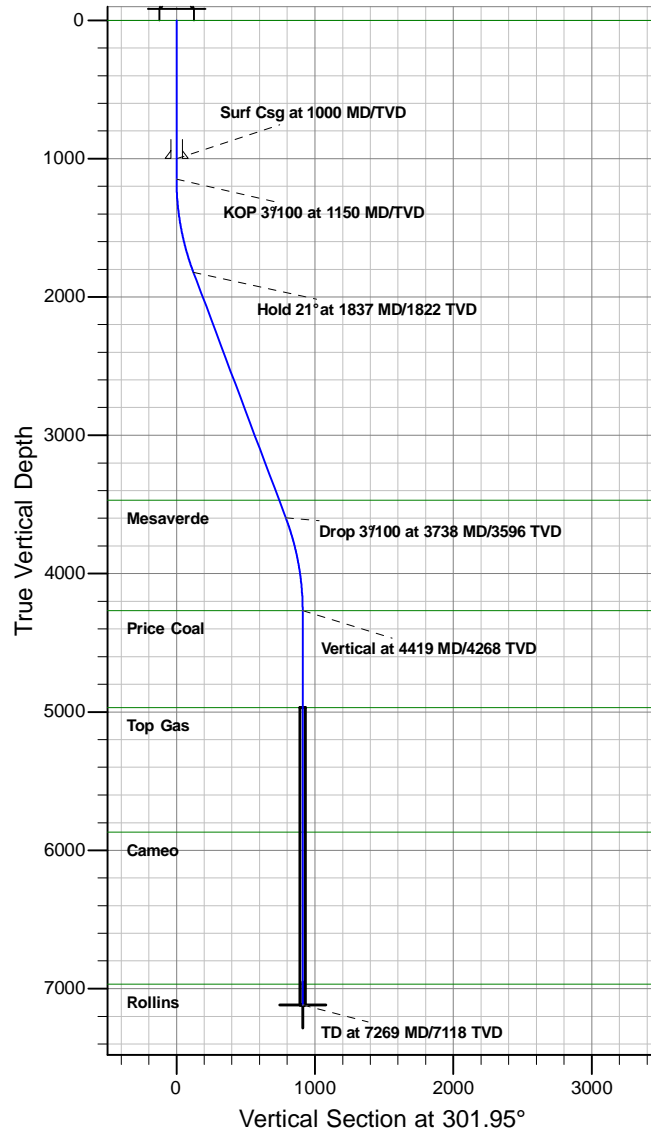




# Antero Resources

McLin C05 (111225)  
McLin C05 P02



## REFERENCE INFORMATION

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

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V/Sect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	
1836.93	20.61	301.95	1822.22	64.67	-103.70	3.00	301.95	122.21	
3731.75	20.61	301.95	3595.78	417.55	-669.61	0.00	0.00	789.13	
4418.68	0.00	301.95	4268.00	482.22	-773.31	3.00	180.00	911.34	
7268.68	0.00	301.95	7118.00	482.22	-773.31	0.00	301.95	911.34	

# **Antero Resources**

**McLin**

**McLin C**

**McLin C05 (111225)**

**McLin C05**

**Plan: McLin C05 P02**

## **Standard Planning Report - Geographic**

**22 March, 2012**

## Planning Report - Geographic

<b>Database:</b>	EDM5000-New	<b>Local Co-ordinate Reference:</b>	Well McLin C05 (111225)
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Project:</b>	McLin	<b>MD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Site:</b>	McLin C	<b>North Reference:</b>	Grid
<b>Well:</b>	McLin C05 (111225)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	McLin C05		
<b>Design:</b>	McLin C05 P02		

<b>Project</b>	McLin		
<b>Map System:</b>	Universal Transverse Mercator	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD83 Colorado - HARN		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

Site		McLin C			
Site Position:		Northing:	14,364,522.75 usft	Latitude:	39.525275157°N
From:	Map	Easting:	905,235.88 usft	Longitude:	107.607030464°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.66 °

Well	McLin C05 (111225)					
Well Position	+N/-S	0.00 ft	Northing:	14,364,532.63 usft	Latitude:	39.525300635°N
	+E/-W	0.00 ft	Easting:	905,215.67 usft	Longitude:	107.607103063°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,726.00 ft

<b>Wellbore</b>	McLin C05				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	06/07/12	10.05	65.81	52,219

<b>Design</b>	McLin C05 P02			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	7,118.00	0.00	0.00	301.95

<b>Plan Sections</b>										
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	0.00	0.00	0.00	0.00	0.00	0.00	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,836.93	20.61	301.95	1,822.22	64.67	-103.70	3.00	3.00	0.00	301.95	
3,731.75	20.61	301.95	3,595.78	417.55	-669.61	0.00	0.00	0.00	0.00	
4,418.68	0.00	301.95	4,268.00	482.22	-773.31	3.00	-3.00	0.00	180.00	
7,268.68	0.00	301.95	7,118.00	482.22	-773.31	0.00	0.00	0.00	301.95	

# Planning Report - Geographic

<b>Database:</b>	EDM5000-New	<b>Local Co-ordinate Reference:</b>	Well McLin C05 (111225)
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Project:</b>	McLin	<b>MD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Site:</b>	McLin C	<b>North Reference:</b>	Grid
<b>Well:</b>	McLin C05 (111225)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	McLin C05		
<b>Design:</b>	McLin C05 P02		

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	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
<b>Wasatch</b>									
100.00	0.00	0.00	100.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
200.00	0.00	0.00	200.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
300.00	0.00	0.00	300.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
400.00	0.00	0.00	400.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
500.00	0.00	0.00	500.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
600.00	0.00	0.00	600.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
700.00	0.00	0.00	700.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
800.00	0.00	0.00	800.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
900.00	0.00	0.00	900.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
<b>Surf Csg at 1000 MD/TVD</b>									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,364,532.63	905,215.67	39.525300635°N	107.607103063°W
<b>KOP 3°/100 at 1150 MD/TVD</b>									
1,200.00	1.50	301.95	1,199.99	0.35	-0.56	14,364,532.97	905,215.12	39.525301541°N	107.607105066°W
1,300.00	4.50	301.95	1,299.85	3.12	-5.00	14,364,535.74	905,210.68	39.525308785°N	107.607121081°W
1,400.00	7.50	301.95	1,399.29	8.65	-13.86	14,364,541.27	905,201.81	39.525323253°N	107.607153067°W
1,500.00	10.50	301.95	1,498.04	16.92	-27.14	14,364,549.55	905,188.54	39.525344904°N	107.607200937°W
1,600.00	13.50	301.95	1,595.85	27.92	-44.78	14,364,560.55	905,170.90	39.525373681°N	107.607264560°W
1,700.00	16.50	301.95	1,692.43	41.62	-66.74	14,364,574.24	905,148.94	39.525409503°N	107.607343760°W
1,800.00	19.50	301.95	1,787.52	57.96	-92.95	14,364,590.59	905,122.72	39.525452273°N	107.607438322°W
1,836.93	20.61	301.95	1,822.22	64.67	-103.70	14,364,597.29	905,111.97	39.525469803°N	107.607477079°W
<b>Hold 21° at 1837 MD/1822 TVD</b>									
1,900.00	20.61	301.95	1,881.25	76.41	-122.54	14,364,609.04	905,093.14	39.525500530°N	107.607545015°W
2,000.00	20.61	301.95	1,974.85	95.03	-152.40	14,364,627.66	905,063.27	39.525549250°N	107.607652734°W
2,100.00	20.61	301.95	2,068.45	113.66	-182.27	14,364,646.28	905,033.40	39.525597971°N	107.607760453°W
2,200.00	20.61	301.95	2,162.05	132.28	-212.14	14,364,664.91	905,003.54	39.525646691°N	107.607868172°W
2,300.00	20.61	301.95	2,255.65	150.91	-242.00	14,364,683.53	904,973.67	39.525695411°N	107.607975891°W
2,400.00	20.61	301.95	2,349.25	169.53	-271.87	14,364,702.15	904,943.81	39.525744132°N	107.608083610°W
2,500.00	20.61	301.95	2,442.86	188.15	-301.73	14,364,720.78	904,913.94	39.525792852°N	107.608191329°W
2,600.00	20.61	301.95	2,536.46	206.78	-331.60	14,364,739.40	904,884.07	39.525841572°N	107.608299049°W
2,700.00	20.61	301.95	2,630.06	225.40	-361.47	14,364,758.03	904,854.21	39.525890291°N	107.608406769°W
2,800.00	20.61	301.95	2,723.66	244.02	-391.33	14,364,776.65	904,824.34	39.525939011°N	107.608514489°W
2,900.00	20.61	301.95	2,817.26	262.65	-421.20	14,364,795.27	904,794.47	39.525987731°N	107.608622209°W
3,000.00	20.61	301.95	2,910.86	281.27	-451.07	14,364,813.90	904,764.61	39.526036450°N	107.608729929°W
3,100.00	20.61	301.95	3,004.46	299.90	-480.93	14,364,832.52	904,734.74	39.526085170°N	107.608837649°W
3,200.00	20.61	301.95	3,098.06	318.52	-510.80	14,364,851.14	904,704.88	39.526133889°N	107.608945370°W
3,300.00	20.61	301.95	3,191.66	337.14	-540.67	14,364,869.77	904,675.01	39.526182608°N	107.609053090°W
3,400.00	20.61	301.95	3,285.26	355.77	-570.53	14,364,888.39	904,645.14	39.526231327°N	107.609160811°W
3,500.00	20.61	301.95	3,378.87	374.39	-600.40	14,364,907.02	904,615.28	39.526280046°N	107.609268532°W
3,595.23	20.61	301.95	3,468.00	392.13	-628.84	14,364,924.75	904,586.84	39.526326440°N	107.609371112°W
<b>Mesaverde</b>									
3,600.00	20.61	301.95	3,472.47	393.02	-630.26	14,364,925.64	904,585.41	39.526328765°N	107.609376253°W
3,700.00	20.61	301.95	3,566.07	411.64	-660.13	14,364,944.26	904,555.54	39.526377484°N	107.609483974°W
3,731.75	20.61	301.95	3,595.78	417.55	-669.61	14,364,950.18	904,546.06	39.526392951°N	107.609518172°W
<b>Drop 3°/100 at 3738 MD/3596 TVD</b>									
3,800.00	18.56	301.95	3,660.08	429.66	-689.02	14,364,962.28	904,526.65	39.526424616°N	107.609588186°W
3,900.00	15.56	301.95	3,755.67	445.18	-713.92	14,364,977.80	904,501.76	39.526465219°N	107.609677965°W
4,000.00	12.56	301.95	3,852.67	458.03	-734.53	14,364,990.66	904,481.15	39.526498843°N	107.609752310°W
4,100.00	9.56	301.95	3,950.80	468.18	-750.80	14,365,000.81	904,464.87	39.526525394°N	107.609811018°W
4,200.00	6.56	301.95	4,049.80	475.60	-762.70	14,365,008.22	904,452.97	39.526544800°N	107.609853926°W
4,300.00	3.56	301.95	4,149.40	480.27	-770.19	14,365,012.89	904,445.49	39.526557008°N	107.609880919°W

# Planning Report - Geographic

<b>Database:</b>	EDM5000-New	<b>Local Co-ordinate Reference:</b>	Well McLin C05 (111225)
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Project:</b>	McLin	<b>MD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Site:</b>	McLin C	<b>North Reference:</b>	Grid
<b>Well:</b>	McLin C05 (111225)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	McLin C05		
<b>Design:</b>	McLin C05 P02		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,400.00	0.56	301.95	4,249.32	482.17	-773.24	14,365,014.79	904,442.44	39.526561983°N	107.609891921°W
4,418.68	0.00	301.95	4,268.00	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
Vertical at 4419 MD/4268 TVD - Price Coal									
4,500.00	0.00	301.95	4,349.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
4,600.00	0.00	301.95	4,449.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
4,700.00	0.00	301.95	4,549.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
4,800.00	0.00	301.95	4,649.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
4,900.00	0.00	301.95	4,749.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,000.00	0.00	301.95	4,849.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,100.00	0.00	301.95	4,949.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,118.68	0.00	301.95	4,968.00	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
Top Gas									
5,200.00	0.00	301.95	5,049.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,300.00	0.00	301.95	5,149.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,400.00	0.00	301.95	5,249.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,500.00	0.00	301.95	5,349.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,600.00	0.00	301.95	5,449.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,700.00	0.00	301.95	5,549.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,800.00	0.00	301.95	5,649.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
5,900.00	0.00	301.95	5,749.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,000.00	0.00	301.95	5,849.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,018.68	0.00	301.95	5,868.00	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
Cameo									
6,100.00	0.00	301.95	5,949.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,200.00	0.00	301.95	6,049.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,300.00	0.00	301.95	6,149.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,400.00	0.00	301.95	6,249.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,500.00	0.00	301.95	6,349.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,600.00	0.00	301.95	6,449.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,700.00	0.00	301.95	6,549.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,800.00	0.00	301.95	6,649.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
6,900.00	0.00	301.95	6,749.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
7,000.00	0.00	301.95	6,849.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
7,100.00	0.00	301.95	6,949.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
7,118.68	0.00	301.95	6,968.00	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
Rollins									
7,200.00	0.00	301.95	7,049.32	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
7,268.67	0.00	301.95	7,117.99	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W
TD at 7269 MD/7118 TVD									
7,268.68	0.00	301.95	7,118.00	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
C05 BH - plan hits target center - Circle (radius 20.00)	0.00	0.00	7,118.00	482.22	-773.31	14,365,014.84	904,442.36	39.526562110°N	107.609892200°W

## Planning Report - Geographic

<b>Database:</b>	EDM5000-New	<b>Local Co-ordinate Reference:</b>	Well McLin C05 (111225)
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Project:</b>	McLin	<b>MD Reference:</b>	KB @ 5750.00ft (Original Well Elev)
<b>Site:</b>	McLin C	<b>North Reference:</b>	Grid
<b>Well:</b>	McLin C05 (111225)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	McLin C05		
<b>Design:</b>	McLin C05 P02		

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.00	0.00	Wasatch				
3,595.23	3,468.00	Mesaverde				
4,418.68	4,268.00	Price Coal				
5,118.68	4,968.00	Top Gas				
6,018.68	5,868.00	Cameo				
7,118.68	6,968.00	Rollins				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,150.00	1,150.00	0.00	0.00	KOP 3°/100 at 1150 MD/TVD	
1,836.93	1,822.22	64.67	-103.70	Hold 21° at 1837 MD/1822 TVD	
3,731.75	3,595.78	417.55	-669.61	Drop 3°/100 at 3738 MD/3596 TVD	
4,418.68	4,268.00	482.22	-773.31	Vertical at 4419 MD/4268 TVD	
7,268.67	7,117.99	482.22	-773.31	TD at 7269 MD/7118 TVD	