



## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well McLin B08 (111152), Grid North  
Vertical (TVD) Reference: RKB @ 5622.00ft  
Section (VS) Reference: Slot - (0.00N, 0.00E)  
Measured Depth Reference: RKB @ 5622.00ft  
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	
2314.82	34.94	96.26	2243.94	-37.53	342.29	3.00	96.26	344.34	
3134.78	34.94	96.26	2916.06	-88.71	809.15	0.00	0.00	814.00	
4299.60	0.00	96.26	4010.00	-126.24	1151.43	3.00	180.00	1158.33	
7149.60	0.00	96.26	6860.00	-126.24	1151.43	0.00	96.26	1158.33	TD B8 P03

# **Antero Resources**

**McLin**

**McLin B**

**McLIN B08 (111152)**

**ANTERO McLIN B8**

**Plan: P03**

## **Standard Planning Report - Geographic**

**20 March, 2012**

## Planning Report - Geographic

<b>Database:</b>	EDM5000-New	<b>Local Co-ordinate Reference:</b>	Well McLIN B08 (111152)
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	RKB @ 5622.00ft
<b>Project:</b>	McLin	<b>MD Reference:</b>	RKB @ 5622.00ft
<b>Site:</b>	McLin B	<b>North Reference:</b>	Grid
<b>Well:</b>	McLIN B08 (111152)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ANTERO McLIN B8		
<b>Design:</b>	P03		

<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)		

<b>Site</b>	McLin B		
<b>Site Position:</b>		<b>Northing:</b>	14,366,636.75 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	904,982.97 usft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.20 in
		<b>Latitude:</b>	39.531054942°N
		<b>Longitude:</b>	107.608143570°W
		<b>Grid Convergence:</b>	-1.66 °

<b>Well</b>	McLIN B08 (111152)		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	
		<b>Latitude:</b>	39.530939247°N
		<b>Longitude:</b>	107.607909676°W
		<b>Ground Level:</b>	5,598.00 ft

<b>Wellbore</b>	ANTERO McLIN B8				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	06/16/12	10.05	65.81	52,221

<b>Design</b>	P03			
<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>
	0.00	0.00	0.00	96.26

<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	
2,314.82	34.94	96.26	2,243.94	-37.53	342.29	3.00	3.00	0.00	96.26	
3,134.78	34.94	96.26	2,916.06	-88.71	809.15	0.00	0.00	0.00	0.00	
4,299.60	0.00	96.26	4,010.00	-126.24	1,151.43	3.00	-3.00	0.00	180.00	
7,149.60	0.00	96.26	6,860.00	-126.24	1,151.43	0.00	0.00	0.00	96.26	TD B8 P03

# Planning Report - Geographic

<b>Database:</b>	EDM5000-New	<b>Local Co-ordinate Reference:</b>	Well McLIN B08 (111152)
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	RKB @ 5622.00ft
<b>Project:</b>	McLin	<b>MD Reference:</b>	RKB @ 5622.00ft
<b>Site:</b>	McLin B	<b>North Reference:</b>	Grid
<b>Well:</b>	McLIN B08 (111152)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ANTERO McLIN B8		
<b>Design:</b>	P03		

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	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
<b>Wasatch</b>									
100.00	0.00	0.00	100.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
<b>Surf Csg at 1000 MD/TVD</b>									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,592.71	905,047.71	39.530939247°N	107.607909676°W
<b>KOP 3°/100 at 1150 MD/TVD</b>									
1,200.00	1.50	96.26	1,199.99	-0.07	0.65	14,366,592.63	905,048.36	39.530939103°N	107.607907364°W
1,300.00	4.50	96.26	1,299.85	-0.64	5.85	14,366,592.06	905,053.56	39.530937952°N	107.607888876°W
1,400.00	7.50	96.26	1,399.29	-1.78	16.24	14,366,590.92	905,063.95	39.530935653°N	107.607851950°W
1,500.00	10.50	96.26	1,498.04	-3.49	31.79	14,366,589.22	905,079.50	39.530932213°N	107.607796687°W
1,600.00	13.50	96.26	1,595.85	-5.75	52.46	14,366,586.95	905,100.16	39.530927641°N	107.607723240°W
1,700.00	16.50	96.26	1,692.43	-8.57	78.18	14,366,584.13	905,125.89	39.530921949°N	107.607631809°W
1,800.00	19.50	96.26	1,787.52	-11.94	108.89	14,366,580.77	905,156.60	39.530915153°N	107.607522644°W
1,900.00	22.50	96.26	1,880.87	-15.84	144.51	14,366,576.86	905,192.22	39.530907271°N	107.607396046°W
2,000.00	25.50	96.26	1,972.22	-20.28	184.94	14,366,572.43	905,232.65	39.530898326°N	107.607252362°W
2,100.00	28.50	96.26	2,061.31	-25.22	230.06	14,366,567.48	905,277.77	39.530888341°N	107.607091984°W
2,200.00	31.50	96.26	2,147.90	-30.67	279.76	14,366,562.03	905,327.47	39.530877344°N	107.606915352°W
2,300.00	34.50	96.26	2,231.76	-36.61	333.89	14,366,556.10	905,381.60	39.530865365°N	107.606722952°W
2,314.82	34.94	96.26	2,243.94	-37.53	342.29	14,366,555.18	905,389.99	39.530863508°N	107.606693121°W
<b>Hold 35° at 2315 MD/2244 TVD</b>									
2,400.00	34.94	96.26	2,313.76	-42.84	390.78	14,366,549.86	905,438.49	39.530852775°N	107.606520752°W
2,500.00	34.94	96.26	2,395.73	-49.09	447.72	14,366,543.62	905,495.43	39.530840175°N	107.606318385°W
2,600.00	34.94	96.26	2,477.70	-55.33	504.66	14,366,537.38	905,552.37	39.530827574°N	107.606116019°W
2,700.00	34.94	96.26	2,559.67	-61.57	561.60	14,366,531.13	905,609.30	39.530814973°N	107.605913652°W
2,800.00	34.94	96.26	2,641.64	-67.81	618.53	14,366,524.89	905,666.24	39.530802372°N	107.605711286°W
2,900.00	34.94	96.26	2,723.61	-74.06	675.47	14,366,518.65	905,723.18	39.530789770°N	107.605508919°W
3,000.00	34.94	96.26	2,805.58	-80.30	732.41	14,366,512.41	905,780.12	39.530777168°N	107.605306553°W
3,100.00	34.94	96.26	2,887.55	-86.54	789.35	14,366,506.16	905,837.05	39.530764566°N	107.605104187°W
3,134.78	34.94	96.26	2,916.06	-88.71	809.15	14,366,503.99	905,856.85	39.530760183°N	107.605033810°W
<b>Drop 3°/100 at 3135 MD/2916 TVD</b>									
3,200.00	32.99	96.26	2,970.15	-92.68	845.37	14,366,500.02	905,893.08	39.530752165°N	107.604905071°W
3,300.00	29.99	96.26	3,055.42	-98.38	897.28	14,366,494.33	905,944.99	39.530740674°N	107.604720556°W
3,400.00	26.99	96.26	3,143.30	-103.57	944.69	14,366,489.13	905,992.40	39.530730180°N	107.604552059°W
3,474.14	24.76	96.26	3,210.00	-107.10	976.85	14,366,485.61	906,024.56	39.530723060°N	107.604437751°W
<b>Mesaverde</b>									
3,500.00	23.99	96.26	3,233.56	-108.26	987.46	14,366,484.44	906,035.17	39.530720712°N	107.604400043°W
3,600.00	20.99	96.26	3,325.94	-112.43	1,025.48	14,366,480.28	906,073.19	39.530712296°N	107.604264924°W
3,700.00	17.99	96.26	3,420.20	-116.07	1,058.64	14,366,476.64	906,106.34	39.530704956°N	107.604147072°W
3,800.00	14.99	96.26	3,516.08	-119.16	1,086.85	14,366,473.55	906,134.55	39.530698711°N	107.604046812°W
3,900.00	11.99	96.26	3,613.31	-121.70	1,110.03	14,366,471.01	906,157.74	39.530693579°N	107.603964416°W
4,000.00	8.99	96.26	3,711.63	-123.68	1,128.12	14,366,469.02	906,175.83	39.530689574°N	107.603900112°W
4,100.00	5.99	96.26	3,810.76	-125.10	1,141.07	14,366,467.60	906,188.78	39.530686706°N	107.603854076°W
4,200.00	2.99	96.26	3,910.44	-125.96	1,148.85	14,366,466.75	906,196.56	39.530684984°N	107.603826433°W

# Planning Report - Geographic

<b>Database:</b>	EDM5000-New	<b>Local Co-ordinate Reference:</b>	Well McLIN B08 (111152)
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	RKB @ 5622.00ft
<b>Project:</b>	McLin	<b>MD Reference:</b>	RKB @ 5622.00ft
<b>Site:</b>	McLin B	<b>North Reference:</b>	Grid
<b>Well:</b>	McLIN B08 (111152)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ANTERO McLIN B8		
<b>Design:</b>	P03		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,299.60	0.00	96.26	4,010.00	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
Vertical at 4300 MD/4010 TVD - Price Coal										
4,300.00	0.00	96.26	4,010.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
4,400.00	0.00	96.26	4,110.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
4,500.00	0.00	96.26	4,210.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
4,600.00	0.00	96.26	4,310.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
4,700.00	0.00	96.26	4,410.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
4,800.00	0.00	96.26	4,510.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
4,900.00	0.00	96.26	4,610.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
4,999.60	0.00	96.26	4,710.00	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
Top Gas										
5,000.00	0.00	96.26	4,710.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,100.00	0.00	96.26	4,810.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,200.00	0.00	96.26	4,910.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,300.00	0.00	96.26	5,010.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,400.00	0.00	96.26	5,110.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,500.00	0.00	96.26	5,210.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,600.00	0.00	96.26	5,310.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,700.00	0.00	96.26	5,410.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,800.00	0.00	96.26	5,510.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
5,899.60	0.00	96.26	5,610.00	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
Cameo										
5,900.00	0.00	96.26	5,610.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,000.00	0.00	96.26	5,710.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,100.00	0.00	96.26	5,810.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,200.00	0.00	96.26	5,910.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,300.00	0.00	96.26	6,010.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,400.00	0.00	96.26	6,110.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,500.00	0.00	96.26	6,210.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,600.00	0.00	96.26	6,310.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,700.00	0.00	96.26	6,410.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,800.00	0.00	96.26	6,510.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,900.00	0.00	96.26	6,610.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
6,999.60	0.00	96.26	6,710.00	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
Rollins										
7,000.00	0.00	96.26	6,710.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
7,100.00	0.00	96.26	6,810.40	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
7,149.60	0.00	96.26	6,860.00	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
TD at 7150 MD/6860 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
TD B8 P03	0.00	360.00	6,860.00	-126.24	1,151.43	14,366,466.47	906,199.14	39.530684413°N	107.603817259°W	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 20.00)										

## Planning Report - Geographic

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<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	RKB @ 5622.00ft
<b>Project:</b>	McLin	<b>MD Reference:</b>	RKB @ 5622.00ft
<b>Site:</b>	McLin B	<b>North Reference:</b>	Grid
<b>Well:</b>	McLIN B08 (111152)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ANTERO McLIN B8		
<b>Design:</b>	P03		

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	9.62	12.25	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.00	0.00	Wasatch				
3,474.14	3,210.00	Mesaverde				
4,299.60	4,010.00	Price Coal				
4,999.60	4,710.00	Top Gas				
5,899.60	5,610.00	Cameo				
6,999.60	6,710.00	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	
2,314.82	2,243.94	-37.53	342.29	Hold 35° at 2315 MD/2244 TVD	
3,134.78	2,916.06	-88.71	809.15	Drop 3°/100 at 3135 MD/2916 TVD	
4,299.60	4,010.00	-126.24	1,151.43	Vertical at 4300 MD/4010 TVD	
7,149.60	6,860.00	-126.24	1,151.43	TD at 7150 MD/6860 TVD	