



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well McLin B13 (111157), 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	
1736.39	17.59	317.87	1727.22	66.24	-59.91	3.00	317.87	89.31	
3600.11	17.59	317.87	3503.78	484.01	-437.73	0.00	0.00	652.59	
4186.50	0.00	317.87	4081.00	550.25	-497.64	3.00	180.00	741.90	
7036.50	0.00	317.87	6931.00	550.25	-497.64	0.00	317.87	741.90	TD B13 P03

Antero Resources

McLin

McLin B

McLIN B13 (111157)

ANTERO McLIN B13

Plan: P03

Standard Planning Report - Geographic

19 March, 2012

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B13 (111157)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B13 (111157)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B13		
Design:	P03		

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

Well	McLIN B13 (111157)		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.531077457°N
		Longitude:	107.608245849°W
		Ground Level:	5,598.00 ft

Wellbore	ANTERO McLIN B13				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	06/16/12	10.05	65.81	52,221

Design	P03				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	6,931.00	0.00	0.00	317.87	

Plan Sections										
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	
1,736.39	17.59	317.87	1,727.22	66.24	-59.91	3.00	3.00	0.00	317.87	
3,600.11	17.59	317.87	3,503.78	484.01	-437.73	0.00	0.00	0.00	0.00	
4,186.50	0.00	317.87	4,081.00	550.25	-497.64	3.00	-3.00	0.00	180.00	
7,036.50	0.00	317.87	6,931.00	550.25	-497.64	0.00	0.00	0.00	317.87	TD B13 P03

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B13 (111157)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B13 (111157)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B13		
Design:	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	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,645.79	904,954.36	39.531077457°N	107.608245849°W
KOP 3°/100 at 1150 MD/TVD									
1,200.00	1.50	317.87	1,199.99	0.49	-0.44	14,366,646.27	904,953.92	39.531078754°N	107.608247455°W
1,300.00	4.50	317.87	1,299.85	4.37	-3.95	14,366,650.15	904,950.41	39.531089123°N	107.608260289°W
1,400.00	7.50	317.87	1,399.29	12.12	-10.96	14,366,657.91	904,943.40	39.531109833°N	107.608285923°W
1,500.00	10.50	317.87	1,498.04	23.72	-21.45	14,366,669.51	904,932.91	39.531140826°N	107.608324287°W
1,600.00	13.50	317.87	1,595.85	39.14	-35.40	14,366,684.93	904,918.97	39.531182019°N	107.608375275°W
1,700.00	16.50	317.87	1,692.43	58.33	-52.75	14,366,704.12	904,901.61	39.531233297°N	107.608438747°W
1,736.39	17.59	317.87	1,727.22	66.24	-59.91	14,366,712.03	904,894.45	39.531254432°N	107.608464908°W
Hold 18° at 1736 MD/1727 TVD									
1,800.00	17.59	317.87	1,787.86	80.50	-72.80	14,366,726.29	904,881.56	39.531292527°N	107.608512062°W
1,900.00	17.59	317.87	1,883.18	102.92	-93.08	14,366,748.71	904,861.29	39.531352413°N	107.608586188°W
2,000.00	17.59	317.87	1,978.50	125.33	-113.35	14,366,771.12	904,841.01	39.531412300°N	107.608660316°W
2,100.00	17.59	317.87	2,073.83	147.75	-133.62	14,366,793.54	904,820.74	39.531472186°N	107.608734443°W
2,200.00	17.59	317.87	2,169.15	170.17	-153.89	14,366,815.95	904,800.47	39.531532072°N	107.608808570°W
2,300.00	17.59	317.87	2,264.47	192.58	-174.17	14,366,838.37	904,780.20	39.531591958°N	107.608882698°W
2,400.00	17.59	317.87	2,359.80	215.00	-194.44	14,366,860.78	904,759.93	39.531651843°N	107.608956825°W
2,500.00	17.59	317.87	2,455.12	237.41	-214.71	14,366,883.20	904,739.65	39.531711729°N	107.609030953°W
2,600.00	17.59	317.87	2,550.44	259.83	-234.98	14,366,905.62	904,719.38	39.531771615°N	107.609105081°W
2,700.00	17.59	317.87	2,645.77	282.24	-255.25	14,366,928.03	904,699.11	39.531831501°N	107.609179209°W
2,800.00	17.59	317.87	2,741.09	304.66	-275.53	14,366,950.45	904,678.84	39.531891386°N	107.609253337°W
2,900.00	17.59	317.87	2,836.41	327.08	-295.80	14,366,972.86	904,658.56	39.531951272°N	107.609327465°W
3,000.00	17.59	317.87	2,931.74	349.49	-316.07	14,366,995.28	904,638.29	39.532011158°N	107.609401593°W
3,100.00	17.59	317.87	3,027.06	371.91	-336.34	14,367,017.69	904,618.02	39.532071043°N	107.609475722°W
3,200.00	17.59	317.87	3,122.38	394.32	-356.62	14,367,040.11	904,597.75	39.532130929°N	107.609549851°W
3,300.00	17.59	317.87	3,217.71	416.74	-376.89	14,367,062.53	904,577.47	39.532190814°N	107.609623979°W
3,366.40	17.59	317.87	3,281.00	431.62	-390.35	14,367,077.41	904,564.01	39.532230576°N	107.609673199°W
Mesaverde									
3,400.00	17.59	317.87	3,313.03	439.15	-397.16	14,367,084.94	904,557.20	39.532250699°N	107.609698108°W
3,500.00	17.59	317.87	3,408.35	461.57	-417.43	14,367,107.36	904,536.93	39.532310585°N	107.609772237°W
3,600.00	17.59	317.87	3,503.68	483.99	-437.71	14,367,129.77	904,516.66	39.532370470°N	107.609846366°W
3,600.11	17.59	317.87	3,503.78	484.01	-437.73	14,367,129.80	904,516.64	39.532370535°N	107.609846447°W
Drop 3°/100 at 3600 MD/3504 TVD									
3,700.00	14.59	317.87	3,599.75	504.55	-456.30	14,367,150.33	904,498.06	39.532425395°N	107.609914356°W
3,800.00	11.59	317.87	3,697.14	521.35	-471.49	14,367,167.13	904,482.87	39.532470282°N	107.609969920°W
3,900.00	8.59	317.87	3,795.58	534.35	-483.25	14,367,180.13	904,471.11	39.532505009°N	107.610012906°W
4,000.00	5.59	317.87	3,894.80	543.51	-491.53	14,367,189.29	904,462.83	39.532529479°N	107.610043197°W
4,100.00	2.59	317.87	3,994.53	548.80	-496.32	14,367,194.59	904,458.04	39.532543627°N	107.610060710°W
4,186.50	0.00	317.87	4,081.00	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
Vertical at 4187 MD/4081 TVD - Price Coal									

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B13 (111157)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B13 (111157)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B13		
Design:	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
4,200.00	0.00	317.87	4,094.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
4,300.00	0.00	317.87	4,194.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
4,400.00	0.00	317.87	4,294.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
4,500.00	0.00	317.87	4,394.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
4,600.00	0.00	317.87	4,494.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
4,700.00	0.00	317.87	4,594.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
4,800.00	0.00	317.87	4,694.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
4,886.50	0.00	317.87	4,781.00	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
Top Gas									
4,900.00	0.00	317.87	4,794.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,000.00	0.00	317.87	4,894.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,100.00	0.00	317.87	4,994.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,200.00	0.00	317.87	5,094.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,300.00	0.00	317.87	5,194.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,400.00	0.00	317.87	5,294.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,500.00	0.00	317.87	5,394.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,600.00	0.00	317.87	5,494.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,700.00	0.00	317.87	5,594.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,786.50	0.00	317.87	5,681.00	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
Cameo									
5,800.00	0.00	317.87	5,694.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
5,900.00	0.00	317.87	5,794.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,000.00	0.00	317.87	5,894.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,100.00	0.00	317.87	5,994.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,200.00	0.00	317.87	6,094.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,300.00	0.00	317.87	6,194.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,400.00	0.00	317.87	6,294.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,500.00	0.00	317.87	6,394.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,600.00	0.00	317.87	6,494.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,700.00	0.00	317.87	6,594.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,800.00	0.00	317.87	6,694.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
6,886.50	0.00	317.87	6,781.00	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
Rollins									
6,900.00	0.00	317.87	6,794.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
7,000.00	0.00	317.87	6,894.50	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
7,036.50	0.00	317.87	6,931.00	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
TD at 7037 MD/6931 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TD B13 P03	0.00	360.00	6,931.00	550.25	-497.64	14,367,196.04	904,456.73	39.532547507°N	107.610065513°W
- hit/miss target									
- Shape									
TD B13 P03 - plan hits target center - Circle (radius 20.00)									

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well McLIN B13 (111157)
Company:	Antero Resources	TVD Reference:	RKB @ 5622.00ft
Project:	McLin	MD Reference:	RKB @ 5622.00ft
Site:	McLin B	North Reference:	Grid
Well:	McLIN B13 (111157)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B13		
Design:	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				
3,366.40	3,281.00	Mesaverde				
4,186.50	4,081.00	Price Coal				
4,886.50	4,781.00	Top Gas				
5,786.50	5,681.00	Cameo				
6,886.50	6,781.00	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	
1,736.39	1,727.22	66.24	-59.91	Hold 18° at 1736 MD/1727 TVD	
3,600.11	3,503.78	484.01	-437.73	Drop 3°/100 at 3600 MD/3504 TVD	
4,186.50	4,081.00	550.25	-497.64	Vertical at 4187 MD/4081 TVD	
7,036.50	6,931.00	550.25	-497.64	TD at 7037 MD/6931 TVD	