



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Gentry B12 (111999) - Slot B12, Grid North
Vertical (TVD) Reference: KB @ 5648.00ft (Original Well Elev)
Section (VS) Reference: Slot - B12(0.00N, 0.00E)
Measured Depth Reference: KB @ 5648.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Gentry

Geodetic System: Universal Transverse Mercator
Datum: North American Datum 1983
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	VSec	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	
2273.89	33.72	308.06	2210.14	198.03	-252.96	3.00	308.06	321.25	
4485.65	33.72	308.06	4049.86	954.85	-1219.67	0.00	0.00	1548.97	
5609.54	0.00	308.06	5110.00	1152.88	-1472.62	3.00	180.00	1870.23	
8434.54	0.00	308.06	7935.00	1152.88	-1472.62	0.00	308.06	1870.23	B12 Tgt

Antero Resources

Gentry

Gentry B

Gentry B12 (111999) - Slot B12

Gentry B12 (111999)

Plan: P02

Standard Planning Report - Geographic

01 March, 2012

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B12 (111999) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5648.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Site:	Gentry B	North Reference:	Grid
Well:	Gentry B12 (111999)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B12 (111999)		
Design:	P02		

Project	Gentry		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		Gentry B			
Site Position:		Northing:	14,366,383.28 usft	Latitude:	39.528393199°N
From:	Map	Easting:	880,664.23 usft	Longitude:	107.694272643°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.72 °

Well	Gentry B12 (111999) - Slot B12					
Well Position	+N/-S	0.00 ft	Northing:	14,366,381.33 usft	Latitude:	39.528388672°N
	+E/-W	0.00 ft	Easting:	880,674.04 usft	Longitude:	107.694237684°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,624.00 ft

Wellbore	Gentry B12 (111999)				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/24/12	10.10	65.80	52,215

Design	P02			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	308.06

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	
2,273.89	33.72	308.06	2,210.14	198.03	-252.96	3.00	3.00	0.00	308.06	
4,485.65	33.72	308.06	4,049.86	954.85	-1,219.67	0.00	0.00	0.00	0.00	
5,609.54	0.00	308.06	5,110.00	1,152.88	-1,472.62	3.00	-3.00	0.00	180.00	
8,434.54	0.00	308.06	7,935.00	1,152.88	-1,472.62	0.00	0.00	0.00	308.06	B12 Tgt

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B12 (111999) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5648.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Site:	Gentry B	North Reference:	Grid
Well:	Gentry B12 (111999)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B12 (111999)		
Design:	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	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,381.33	880,674.04	39.528388672°N	107.694237684°W
KOP 3°/100 at 1150 MD/TVD									
1,200.00	1.50	308.06	1,199.99	0.40	-0.52	14,366,381.74	880,673.53	39.528389736°N	107.694239553°W
1,300.00	4.50	308.06	1,299.85	3.63	-4.64	14,366,384.96	880,669.41	39.528398247°N	107.694254492°W
1,400.00	7.50	308.06	1,399.29	10.07	-12.87	14,366,391.40	880,661.18	39.528415246°N	107.694284330°W
1,500.00	10.50	308.06	1,498.04	19.71	-25.18	14,366,401.05	880,648.86	39.528440686°N	107.694328984°W
1,600.00	13.50	308.06	1,595.85	32.53	-41.55	14,366,413.86	880,632.49	39.528474497°N	107.694388333°W
1,700.00	16.50	308.06	1,692.43	48.48	-61.93	14,366,429.81	880,612.12	39.528516587°N	107.694462213°W
1,800.00	19.50	308.06	1,787.52	67.53	-86.26	14,366,448.86	880,587.79	39.528566840°N	107.694550423°W
1,900.00	22.50	308.06	1,880.87	89.62	-114.47	14,366,470.95	880,559.57	39.528625119°N	107.694652720°W
2,000.00	25.50	308.06	1,972.22	114.69	-146.50	14,366,496.02	880,527.55	39.528691263°N	107.694768824°W
2,100.00	28.50	308.06	2,061.31	142.67	-182.24	14,366,524.00	880,491.81	39.528765092°N	107.694898417°W
2,200.00	31.50	308.06	2,147.90	173.49	-221.60	14,366,554.82	880,452.44	39.528846403°N	107.695041144°W
2,273.89	33.72	308.06	2,210.14	198.03	-252.96	14,366,579.36	880,421.09	39.528911160°N	107.695154815°W
Hold 34° at 2274 MD/2210 TVD									
2,300.00	33.72	308.06	2,231.86	206.97	-264.37	14,366,588.30	880,409.68	39.528934732°N	107.695196191°W
2,400.00	33.72	308.06	2,315.04	241.18	-308.08	14,366,622.52	880,365.97	39.529025011°N	107.695354662°W
2,500.00	33.72	308.06	2,398.21	275.40	-351.78	14,366,656.73	880,322.26	39.529115290°N	107.695513133°W
2,600.00	33.72	308.06	2,481.39	309.62	-395.49	14,366,690.95	880,278.55	39.529205568°N	107.695671605°W
2,700.00	33.72	308.06	2,564.57	343.84	-439.20	14,366,725.17	880,234.85	39.529295846°N	107.695830077°W
2,800.00	33.72	308.06	2,647.75	378.06	-482.91	14,366,759.39	880,191.14	39.529386124°N	107.695988549°W
2,900.00	33.72	308.06	2,730.93	412.27	-526.61	14,366,793.60	880,147.43	39.529476402°N	107.696147022°W
3,000.00	33.72	308.06	2,814.11	446.49	-570.32	14,366,827.82	880,103.72	39.529566680°N	107.696305496°W
3,100.00	33.72	308.06	2,897.29	480.71	-614.03	14,366,862.04	880,060.02	39.529656957°N	107.696463969°W
3,200.00	33.72	308.06	2,980.47	514.93	-657.74	14,366,896.26	880,016.31	39.529747234°N	107.696622443°W
3,300.00	33.72	308.06	3,063.65	549.14	-701.45	14,366,930.47	879,972.60	39.529837511°N	107.696780918°W
3,400.00	33.72	308.06	3,146.83	583.36	-745.15	14,366,964.69	879,928.89	39.529927788°N	107.696939393°W
3,500.00	33.72	308.06	3,230.01	617.58	-788.86	14,366,998.91	879,885.18	39.530018064°N	107.697097868°W
3,600.00	33.72	308.06	3,313.19	651.80	-832.57	14,367,033.13	879,841.48	39.530108340°N	107.697256344°W
3,700.00	33.72	308.06	3,396.36	686.01	-876.28	14,367,067.35	879,797.77	39.530198616°N	107.697414820°W
3,800.00	33.72	308.06	3,479.54	720.23	-919.98	14,367,101.56	879,754.06	39.530288892°N	107.697573296°W
3,900.00	33.72	308.06	3,562.72	754.45	-963.69	14,367,135.78	879,710.35	39.530379168°N	107.697731773°W
4,000.00	33.72	308.06	3,645.90	788.67	-1,007.40	14,367,170.00	879,666.65	39.530469443°N	107.697890251°W
4,100.00	33.72	308.06	3,729.08	822.89	-1,051.11	14,367,204.22	879,622.94	39.530559718°N	107.698048728°W
4,200.00	33.72	308.06	3,812.26	857.10	-1,094.82	14,367,238.43	879,579.23	39.530649993°N	107.698207206°W
4,300.00	33.72	308.06	3,895.44	891.32	-1,138.52	14,367,272.65	879,535.52	39.530740267°N	107.698365685°W
4,400.00	33.72	308.06	3,978.62	925.54	-1,182.23	14,367,306.87	879,491.82	39.530830542°N	107.698524164°W
4,485.65	33.72	308.06	4,049.86	954.85	-1,219.67	14,367,336.18	879,454.38	39.530907860°N	107.698659899°W
Drop 3°/100 at 4486 MD/4050 TVD									
4,500.00	33.29	308.06	4,061.83	959.73	-1,225.90	14,367,341.06	879,448.14	39.530920743°N	107.698682515°W

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B12 (111999) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5648.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Site:	Gentry B	North Reference:	Grid
Well:	Gentry B12 (111999)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B12 (111999)		
Design:	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
4,600.00	30.29	308.06	4,146.82	992.20	-1,267.38	14,367,373.53	879,406.67	39.531006398°N	107.698832887°W
4,700.00	27.29	308.06	4,234.45	1,021.88	-1,305.29	14,367,403.21	879,368.76	39.531084703°N	107.698970354°W
4,800.00	24.29	308.06	4,324.48	1,048.69	-1,339.54	14,367,430.02	879,334.51	39.531155441°N	107.699094539°W
4,827.90	23.45	308.06	4,350.00	1,055.65	-1,348.43	14,367,436.98	879,325.62	39.531173801°N	107.699126771°W
Mesaverde									
4,900.00	21.29	308.06	4,416.67	1,072.56	-1,370.03	14,367,453.89	879,304.02	39.531218419°N	107.699205101°W
5,000.00	18.29	308.06	4,510.76	1,093.43	-1,396.68	14,367,474.76	879,277.37	39.531273464°N	107.699301737°W
5,100.00	15.29	308.06	4,606.48	1,111.23	-1,419.42	14,367,492.56	879,254.63	39.531320426°N	107.699384182°W
5,200.00	12.29	308.06	4,703.59	1,125.91	-1,438.18	14,367,507.24	879,235.87	39.531359176°N	107.699452211°W
5,300.00	9.29	308.06	4,801.81	1,137.45	-1,452.91	14,367,518.78	879,221.13	39.531389607°N	107.699505636°W
5,400.00	6.29	308.06	4,900.88	1,145.80	-1,463.58	14,367,527.13	879,210.47	39.531411637°N	107.699544311°W
5,500.00	3.29	308.06	5,000.52	1,150.94	-1,470.15	14,367,532.27	879,203.90	39.531425205°N	107.699568131°W
5,600.00	0.29	308.06	5,100.46	1,152.86	-1,472.60	14,367,534.19	879,201.44	39.531430273°N	107.699577029°W
5,609.54	0.00	308.06	5,110.00	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
Vertical at 5610 MD/5110 TVD - Price Coal									
5,700.00	0.00	308.06	5,200.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
5,800.00	0.00	308.06	5,300.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
5,900.00	0.00	308.06	5,400.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,000.00	0.00	308.06	5,500.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,100.00	0.00	308.06	5,600.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,200.00	0.00	308.06	5,700.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,300.00	0.00	308.06	5,800.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,400.00	0.00	308.06	5,900.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,500.00	0.00	308.06	6,000.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,509.54	0.00	308.06	6,010.00	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
Top Gas									
6,600.00	0.00	308.06	6,100.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,700.00	0.00	308.06	6,200.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,800.00	0.00	308.06	6,300.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
6,900.00	0.00	308.06	6,400.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,000.00	0.00	308.06	6,500.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,100.00	0.00	308.06	6,600.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,200.00	0.00	308.06	6,700.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,300.00	0.00	308.06	6,800.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,334.54	0.00	308.06	6,835.00	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
Cameo									
7,400.00	0.00	308.06	6,900.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,500.00	0.00	308.06	7,000.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,600.00	0.00	308.06	7,100.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,700.00	0.00	308.06	7,200.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,800.00	0.00	308.06	7,300.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
7,900.00	0.00	308.06	7,400.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
8,000.00	0.00	308.06	7,500.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
8,100.00	0.00	308.06	7,600.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
8,200.00	0.00	308.06	7,700.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
8,234.54	0.00	308.06	7,735.00	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
Rollins									
8,300.00	0.00	308.06	7,800.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
8,400.00	0.00	308.06	7,900.46	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
8,434.54	0.00	308.06	7,935.00	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
TD at 8435 MD/7935 TVD - B12 Tgt									

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B12 (111999) - Slot B12
Company:	Antero Resources	TVD Reference:	KB @ 5648.00ft (Original Well Elev)
Project:	Gentry	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Site:	Gentry B	North Reference:	Grid
Well:	Gentry B12 (111999)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B12 (111999)		
Design:	P02		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
B12 Tgt	0.00	0.00	7,935.00	1,152.88	-1,472.62	14,367,534.21	879,201.42	39.531430312°N	107.699577097°W
- plan hits target center									
- Circle (radius 20.00)									

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

Formations					
Measured Depth	Vertical Depth	Name		Dip	Dip Direction
(ft)	(ft)			(°)	(°)
0.00	0.00	Wasatch		0.00	
4,827.90	4,350.00	Mesaverde		0.00	
5,609.54	5,110.00	Price Coal		0.00	
6,509.54	6,010.00	Top Gas		0.00	
7,334.54	6,835.00	Cameo		0.00	
8,234.54	7,735.00	Rollins		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
1,150.00	1,150.00	0.00	0.00	KOP 3°/100 at 1150 MD/TVD
2,273.89	2,210.14	198.03	-252.96	Hold 34° at 2274 MD/2210 TVD
4,485.65	4,049.86	954.85	-1,219.67	Drop 3°/100 at 4486 MD/4050 TVD
5,609.54	5,110.00	1,152.88	-1,472.62	Vertical at 5610 MD/5110 TVD
8,434.54	7,935.00	1,152.88	-1,472.62	TD at 8435 MD/7935 TVD