



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Gentry B17 (112021) - Slot B17, Grid North
Vertical (TVD) Reference: KB @ 5648.00ft (Original Well Elev)
Section (VS) Reference: Slot - B17(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	
1350.00	0.00	0.00	1350.00	0.00	0.00	0.00	0.00	0.00	
2441.23	32.74	30.80	2382.82	260.57	155.34	3.00	30.80	303.36	
4369.95	32.74	30.80	4005.18	1156.46	689.43	0.00	0.00	1346.37	
5461.18	0.00	30.80	5038.00	1417.03	844.77	3.00	180.00	1649.73	
8361.18	0.00	30.80	7938.00	1417.03	844.77	0.00	30.80	1649.73	BH B17



Antero Resources

Gentry

Gentry B

Gentry B17 (112021) - Slot B17

Gentry B17

Plan: Gentry B17 P02

Standard Planning Report - Geographic

30 May, 2012



Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B17 (112021) - Slot B17
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 B17 (112021)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B17		
Design:	Gentry B17 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:	13.200 in	Grid Convergence:	-1.72 °

Well	Gentry B17 (112021) - Slot B17					
Well Position	+N/-S	0.00 ft	Northing:	14,366,397.57 usft	Latitude:	39.528436004°N
	+E/-W	0.00 ft	Easting:	880,707.84 usft	Longitude:	107.694119665°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,624.00 ft

Wellbore	Gentry B17				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/18/12	10.07	65.79	52,191

Design	Gentry B17 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	30.80

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	
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,441.23	32.74	30.80	2,382.82	260.57	155.34	3.00	3.00	0.00	30.80	
4,369.95	32.74	30.80	4,005.18	1,156.46	689.43	0.00	0.00	0.00	0.00	
5,461.18	0.00	30.80	5,038.00	1,417.03	844.77	3.00	-3.00	0.00	180.00	
8,361.18	0.00	30.80	7,938.00	1,417.03	844.77	0.00	0.00	0.00	30.80	BH B17

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B17 (112021) - Slot B17
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 B17 (112021)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B17		
Design:	Gentry B17 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	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
Wasatch										
100.00	0.00	0.00	100.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
200.00	0.00	0.00	200.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
300.00	0.00	0.00	300.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
400.00	0.00	0.00	400.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
500.00	0.00	0.00	500.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
600.00	0.00	0.00	600.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
700.00	0.00	0.00	700.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
800.00	0.00	0.00	800.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
900.00	0.00	0.00	900.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
Surf Csg at 1000 MD/TVD										
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
1,350.00	0.00	0.00	1,350.00	0.00	0.00	14,366,397.57	880,707.84	39.528436004°N	107.694119665°W	
KOP 3°/100 at 1350 MD/TVD										
1,400.00	1.50	30.80	1,399.99	0.56	0.34	14,366,398.14	880,708.18	39.528437574°N	107.694118537°W	
1,500.00	4.50	30.80	1,499.85	5.06	3.01	14,366,402.63	880,710.86	39.528450125°N	107.694109522°W	
1,600.00	7.50	30.80	1,599.29	14.03	8.37	14,366,411.61	880,716.21	39.528475193°N	107.694091514°W	
1,700.00	10.50	30.80	1,698.04	27.47	16.38	14,366,425.04	880,724.22	39.528512710°N	107.694064566°W	
1,800.00	13.50	30.80	1,795.85	45.33	27.02	14,366,442.90	880,734.87	39.528562571°N	107.694028749°W	
1,900.00	16.50	30.80	1,892.43	67.55	40.27	14,366,465.13	880,748.12	39.528624641°N	107.693984162°W	
2,000.00	19.50	30.80	1,987.52	94.09	56.09	14,366,491.67	880,763.94	39.528698750°N	107.693930927°W	
2,100.00	22.50	30.80	2,080.87	124.87	74.44	14,366,522.45	880,782.29	39.528784694°N	107.693869191°W	
2,200.00	25.50	30.80	2,172.22	159.81	95.27	14,366,557.38	880,803.11	39.528882238°N	107.693799122°W	
2,300.00	28.50	30.80	2,261.31	198.80	118.51	14,366,596.37	880,826.36	39.528991114°N	107.693720912°W	
2,400.00	31.50	30.80	2,347.90	241.74	144.11	14,366,639.31	880,851.96	39.529111024°N	107.693634776°W	
2,441.23	32.74	30.80	2,382.82	260.57	155.34	14,366,658.14	880,863.18	39.529163599°N	107.693597009°W	
Hold 33° at 2441 MD/2383 TVD										
2,500.00	32.74	30.80	2,432.25	287.87	171.61	14,366,685.44	880,879.46	39.529239827°N	107.693542251°W	
2,600.00	32.74	30.80	2,516.37	334.32	199.30	14,366,731.89	880,907.15	39.529369532°N	107.693449078°W	
2,700.00	32.74	30.80	2,600.49	380.77	227.00	14,366,778.34	880,934.84	39.529499237°N	107.693355905°W	
2,800.00	32.74	30.80	2,684.60	427.22	254.69	14,366,824.79	880,962.53	39.529628942°N	107.693262731°W	
2,900.00	32.74	30.80	2,768.72	473.67	282.38	14,366,871.24	880,990.22	39.529758647°N	107.693169557°W	
3,000.00	32.74	30.80	2,852.83	520.12	310.07	14,366,917.69	881,017.91	39.529888352°N	107.693076382°W	
3,100.00	32.74	30.80	2,936.95	566.57	337.76	14,366,964.14	881,045.61	39.530018057°N	107.692983207°W	
3,200.00	32.74	30.80	3,021.07	613.02	365.45	14,367,010.59	881,073.30	39.530147762°N	107.692890032°W	
3,300.00	32.74	30.80	3,105.18	659.47	393.15	14,367,057.04	881,100.99	39.530277467°N	107.692796857°W	
3,400.00	32.74	30.80	3,189.30	705.92	420.84	14,367,103.49	881,128.68	39.530407171°N	107.692703681°W	
3,500.00	32.74	30.80	3,273.42	752.37	448.53	14,367,149.94	881,156.37	39.530536876°N	107.692610505°W	
3,600.00	32.74	30.80	3,357.53	798.82	476.22	14,367,196.39	881,184.06	39.530666581°N	107.692517328°W	
3,700.00	32.74	30.80	3,441.65	845.27	503.91	14,367,242.84	881,211.75	39.530796285°N	107.692424151°W	
3,800.00	32.74	30.80	3,525.76	891.72	531.60	14,367,289.29	881,239.45	39.530925989°N	107.692330974°W	
3,900.00	32.74	30.80	3,609.88	938.17	559.29	14,367,335.74	881,267.14	39.531055694°N	107.692237796°W	
4,000.00	32.74	30.80	3,694.00	984.62	586.99	14,367,382.19	881,294.83	39.531185398°N	107.692144619°W	
4,100.00	32.74	30.80	3,778.11	1,031.07	614.68	14,367,428.64	881,322.52	39.531315102°N	107.692051440°W	
4,200.00	32.74	30.80	3,862.23	1,077.52	642.37	14,367,475.09	881,350.21	39.531444806°N	107.691958262°W	
4,300.00	32.74	30.80	3,946.35	1,123.97	670.06	14,367,521.54	881,377.90	39.531574511°N	107.691865083°W	
4,369.95	32.74	30.80	4,005.18	1,156.46	689.43	14,367,554.04	881,397.27	39.531665238°N	107.691799904°W	
Drop 3°/100 at 4370 MD/4005 TVD										
4,400.00	31.84	30.80	4,030.59	1,170.25	697.65	14,367,567.82	881,405.49	39.531703736°N	107.691772248°W	
4,500.00	28.84	30.80	4,116.89	1,213.63	723.51	14,367,611.20	881,431.35	39.531824858°N	107.691685233°W	



Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B17 (112021) - Slot B17
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 B17 (112021)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B17		
Design:	Gentry B17 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	25.84	30.80	4,205.71	1,253.07	747.02	14,367,650.64	881,454.86	39.531934981°N	107.691606120°W
4,635.72	24.76	30.80	4,238.00	1,266.18	754.84	14,367,663.75	881,462.68	39.531971589°N	107.691579821°W
Mesaverde									
4,700.00	22.84	30.80	4,296.82	1,288.46	768.12	14,367,686.03	881,475.96	39.532033804°N	107.691535125°W
4,800.00	19.84	30.80	4,389.95	1,319.70	786.75	14,367,717.28	881,494.59	39.532121056°N	107.691472443°W
4,900.00	16.84	30.80	4,484.86	1,346.72	802.85	14,367,744.29	881,510.70	39.532196497°N	107.691418245°W
5,000.00	13.84	30.80	4,581.29	1,369.44	816.39	14,367,767.01	881,524.24	39.532259921°N	107.691372680°W
5,100.00	10.84	30.80	4,678.97	1,387.78	827.33	14,367,785.35	881,535.18	39.532311154°N	107.691335874°W
5,200.00	7.84	30.80	4,777.64	1,401.72	835.64	14,367,799.29	881,543.48	39.532350055°N	107.691307927°W
5,300.00	4.84	30.80	4,877.01	1,411.19	841.29	14,367,808.76	881,549.13	39.532376518°N	107.691288915°W
5,400.00	1.84	30.80	4,976.83	1,416.19	844.27	14,367,813.76	881,552.11	39.532390470°N	107.691278892°W
5,461.18	0.00	30.80	5,038.00	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
Vertical at 5461 MD/5038 TVD - Price Coal									
5,500.00	0.00	30.80	5,076.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
5,600.00	0.00	30.80	5,176.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
5,700.00	0.00	30.80	5,276.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
5,800.00	0.00	30.80	5,376.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
5,900.00	0.00	30.80	5,476.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,000.00	0.00	30.80	5,576.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,100.00	0.00	30.80	5,676.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,161.18	0.00	30.80	5,738.00	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
Top Gas									
6,200.00	0.00	30.80	5,776.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,300.00	0.00	30.80	5,876.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,400.00	0.00	30.80	5,976.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,500.00	0.00	30.80	6,076.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,600.00	0.00	30.80	6,176.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,700.00	0.00	30.80	6,276.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,800.00	0.00	30.80	6,376.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
6,900.00	0.00	30.80	6,476.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,000.00	0.00	30.80	6,576.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,061.18	0.00	30.80	6,638.00	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
Cameo									
7,100.00	0.00	30.80	6,676.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,200.00	0.00	30.80	6,776.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,300.00	0.00	30.80	6,876.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,400.00	0.00	30.80	6,976.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,500.00	0.00	30.80	7,076.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,600.00	0.00	30.80	7,176.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,700.00	0.00	30.80	7,276.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,800.00	0.00	30.80	7,376.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
7,900.00	0.00	30.80	7,476.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
8,000.00	0.00	30.80	7,576.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
8,100.00	0.00	30.80	7,676.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
8,161.18	0.00	30.80	7,738.00	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
Rollins									
8,200.00	0.00	30.80	7,776.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
8,300.00	0.00	30.80	7,876.82	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
8,361.17	0.00	30.80	7,937.99	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
TD at 8361 MD/7938 TVD									
8,361.18	0.00	30.80	7,938.00	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B17 (112021) - Slot B17
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 B17 (112021)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B17		
Design:	Gentry B17 P02		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
BH B17	0.00	360.00	7,938.00	1,417.03	844.77	14,367,814.60	881,552.61	39.532392820°N	107.691277204°W
- plan hits target center									
- Circle (radius 20.00)									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)	Name		(in)	(in)
1,000.00	1,000.00	Surf Csg at 1000 MD/TVD		5.500	6.000

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(ft)	(ft)	Name	Lithology		(°)	(°)
0.00	0.00	Wasatch				
4,635.72	4,238.00	Mesaverde				
5,461.18	5,038.00	Price Coal				
6,161.18	5,738.00	Top Gas				
7,061.18	6,638.00	Cameo				
8,161.18	7,738.00	Rollins				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
1,350.00	1,350.00	0.00	0.00	KOP 3°/100 at 1350 MD/TVD	
2,441.23	2,382.82	260.57	155.34	Hold 33° at 2441 MD/2383 TVD	
4,369.95	4,005.18	1,156.46	689.43	Drop 3°/100 at 4370 MD/4005 TVD	
5,461.18	5,038.00	1,417.03	844.77	Vertical at 5461 MD/5038 TVD	
8,361.17	7,937.99	1,417.03	844.77	TD at 8361 MD/7938 TVD	