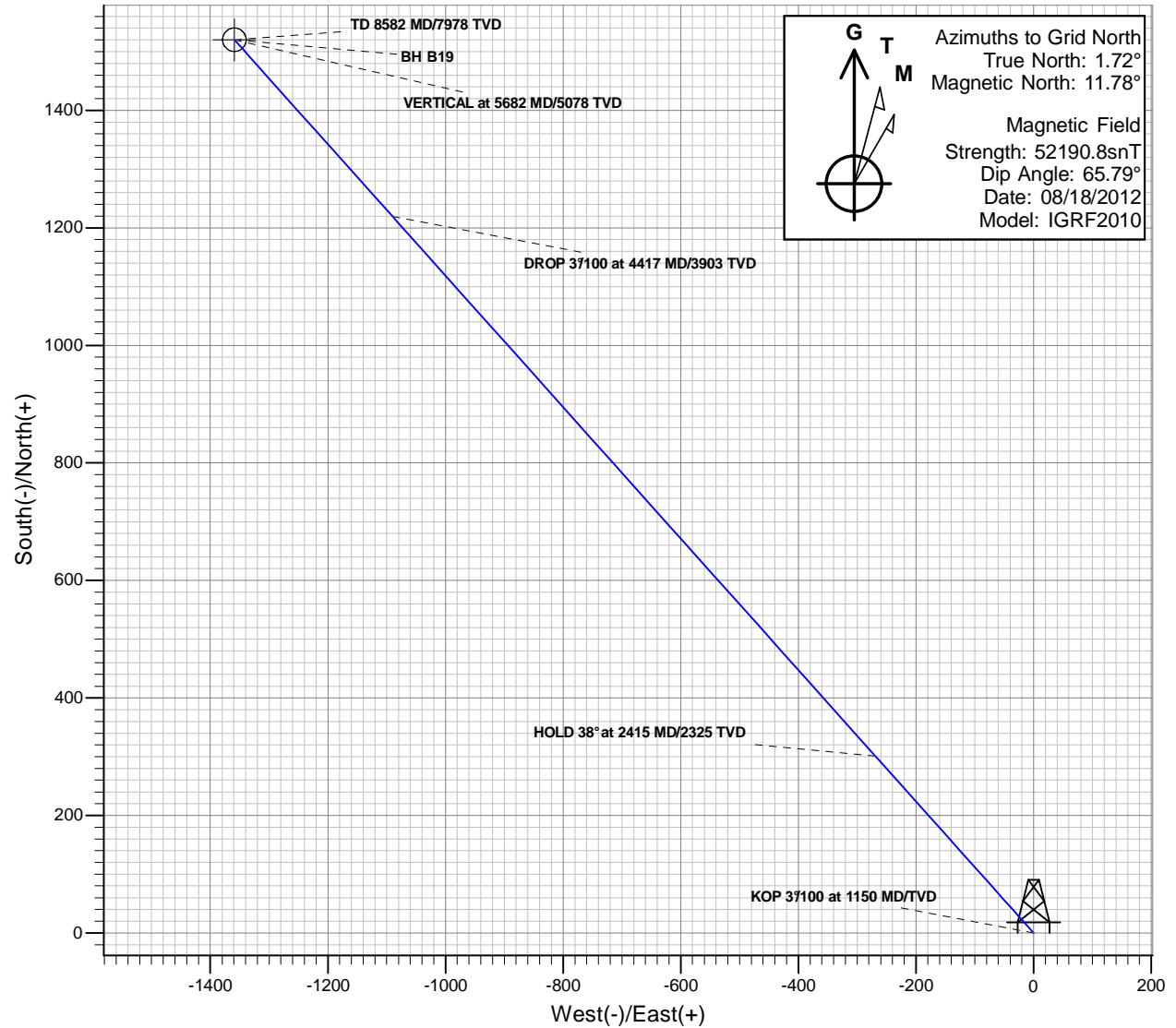
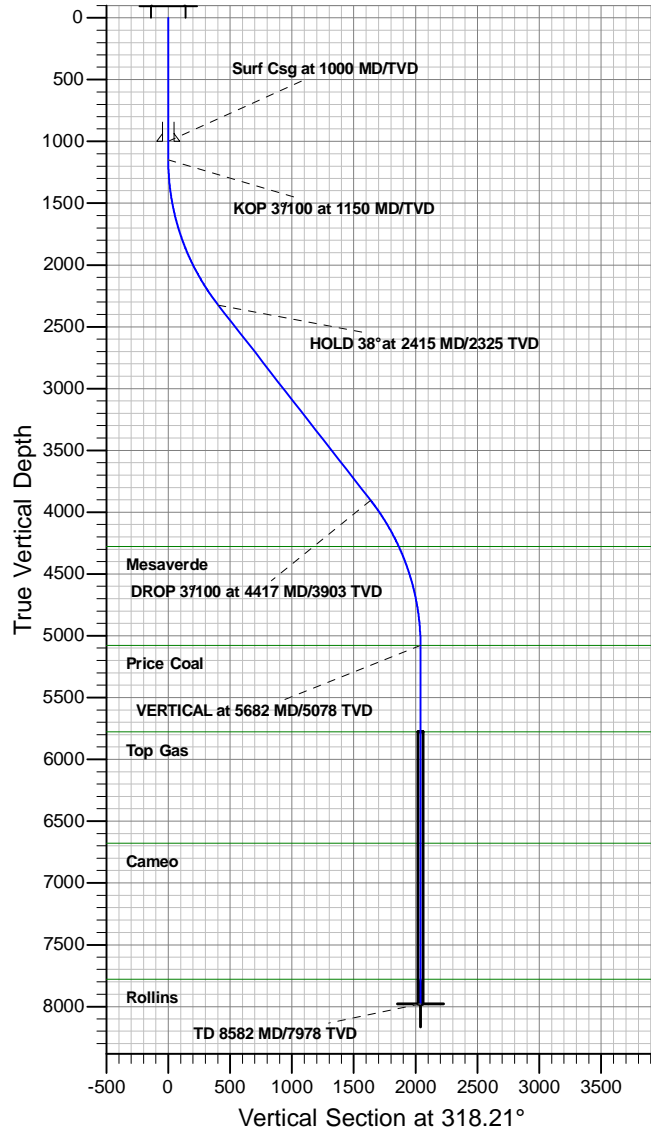




Antero Resources

Gentry B19 (112023)
Gentry B19 P01



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Gentry B19 (112023) - Slot B19, Grid North
Vertical (TVD) Reference: KB @ 5648.00ft (Original Well Elev)
Section (VS) Reference: Slot - B19(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	Vsect	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	
2415.07	37.95	318.21	2324.57	301.11	-269.18	3.00	318.21	403.89	
4417.37	37.95	318.21	3903.43	1219.18	-1089.87	0.00	0.00	1635.31	
5682.44	0.00	318.21	5078.00	1520.30	-1359.05	3.00	180.00	2039.20	
8582.44	0.00	318.21	7978.00	1520.30	-1359.05	0.00	318.21	2039.20	BH B19



Antero Resources

Gentry

Gentry B

Gentry B19 (112023) - Slot B19

Gentry B19

Plan: Gentry B19 P01

Standard Planning Report - Geographic

29 May, 2012



Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B19 (112023) - Slot B19
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 B19 (112023)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B19		
Design:	Gentry B19 P01		

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 B19 (112023) - Slot B19					
Well Position	+N/-S	0.00 ft	Northing:	14,366,401.46 usft	Latitude:	39.528445056°N
	+E/-W	0.00 ft	Easting:	880,688.23 usft	Longitude:	107.694189579°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,624.00 ft

Wellbore	Gentry B19				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/18/12	10.07	65.79	52,191

Design	Gentry B19 P01				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	318.21	

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	
2,415.07	37.95	318.21	2,324.57	301.11	-269.18	3.00	3.00	0.00	318.21	
4,417.37	37.95	318.21	3,903.43	1,219.18	-1,089.87	0.00	0.00	0.00	0.00	
5,682.44	0.00	318.21	5,078.00	1,520.30	-1,359.05	3.00	-3.00	0.00	180.00	
8,582.44	0.00	318.21	7,978.00	1,520.30	-1,359.05	0.00	0.00	0.00	318.21	BH B19

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B19 (112023) - Slot B19
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 B19 (112023)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B19		
Design:	Gentry B19 P01		

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	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
100.00	0.00	0.00	100.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,401.46	880,688.23	39.528445056°N	107.694189579°W
KOP 3°/100 at 1150 MD/TVD									
1,200.00	1.50	318.21	1,199.99	0.49	-0.44	14,366,401.95	880,687.79	39.528446359°N	107.694191176°W
1,300.00	4.50	318.21	1,299.85	4.39	-3.92	14,366,405.85	880,684.30	39.528456775°N	107.694203945°W
1,400.00	7.50	318.21	1,399.29	12.18	-10.89	14,366,413.64	880,677.34	39.528477579°N	107.694229448°W
1,500.00	10.50	318.21	1,498.04	23.84	-21.31	14,366,425.30	880,666.91	39.528508714°N	107.694267615°W
1,600.00	13.50	318.21	1,595.85	39.34	-35.17	14,366,440.80	880,653.06	39.528550095°N	107.694318342°W
1,700.00	16.50	318.21	1,692.43	58.64	-52.42	14,366,460.10	880,635.81	39.528601608°N	107.694381489°W
1,800.00	19.50	318.21	1,787.52	81.67	-73.01	14,366,483.13	880,615.22	39.528663111°N	107.694456884°W
1,900.00	22.50	318.21	1,880.87	108.39	-96.89	14,366,509.85	880,591.34	39.528734437°N	107.694544320°W
2,000.00	25.50	318.21	1,972.22	138.71	-123.99	14,366,540.17	880,564.23	39.528815389°N	107.694643557°W
2,100.00	28.50	318.21	2,061.31	172.55	-154.25	14,366,574.01	880,533.98	39.528905746°N	107.694754323°W
2,200.00	31.50	318.21	2,147.90	209.82	-187.57	14,366,611.28	880,500.66	39.529005261°N	107.694876316°W
2,300.00	34.50	318.21	2,231.76	250.42	-223.86	14,366,651.88	880,464.37	39.529113659°N	107.695009200°W
2,400.00	37.50	318.21	2,312.65	294.24	-263.03	14,366,695.70	880,425.20	39.529230645°N	107.695152612°W
2,415.07	37.95	318.21	2,324.57	301.11	-269.18	14,366,702.57	880,419.05	39.529249002°N	107.695175115°W
HOLD 38° at 2415 MD/2325 TVD									
2,500.00	37.95	318.21	2,391.54	340.05	-303.99	14,366,741.51	880,384.24	39.529352968°N	107.695302567°W
2,600.00	37.95	318.21	2,470.39	385.91	-344.97	14,366,787.36	880,343.25	39.529475384°N	107.695452638°W
2,700.00	37.95	318.21	2,549.24	431.76	-385.96	14,366,833.22	880,302.26	39.529597800°N	107.695602709°W
2,800.00	37.95	318.21	2,628.10	477.61	-426.95	14,366,879.07	880,261.28	39.529720216°N	107.695752781°W
2,900.00	37.95	318.21	2,706.95	523.46	-467.94	14,366,924.92	880,220.29	39.529842632°N	107.695902853°W
3,000.00	37.95	318.21	2,785.80	569.31	-508.93	14,366,970.77	880,179.30	39.529965047°N	107.696052926°W
3,100.00	37.95	318.21	2,864.65	615.16	-549.91	14,367,016.62	880,138.31	39.530087463°N	107.696202999°W
3,200.00	37.95	318.21	2,943.50	661.01	-590.90	14,367,062.47	880,097.33	39.530209878°N	107.696353073°W
3,300.00	37.95	318.21	3,022.36	706.86	-631.89	14,367,108.32	880,056.34	39.530332293°N	107.696503147°W
3,400.00	37.95	318.21	3,101.21	752.71	-672.88	14,367,154.17	880,015.35	39.530454707°N	107.696653222°W
3,500.00	37.95	318.21	3,180.06	798.56	-713.86	14,367,200.02	879,974.36	39.530577122°N	107.696803297°W
3,600.00	37.95	318.21	3,258.91	844.41	-754.85	14,367,245.87	879,933.38	39.530699536°N	107.696953373°W
3,700.00	37.95	318.21	3,337.77	890.26	-795.84	14,367,291.72	879,892.39	39.530821950°N	107.697103450°W
3,800.00	37.95	318.21	3,416.62	936.12	-836.83	14,367,337.57	879,851.40	39.530944364°N	107.697253527°W
3,900.00	37.95	318.21	3,495.47	981.97	-877.81	14,367,383.42	879,810.41	39.531066777°N	107.697403604°W
4,000.00	37.95	318.21	3,574.32	1,027.82	-918.80	14,367,429.28	879,769.43	39.531189190°N	107.697553682°W
4,100.00	37.95	318.21	3,653.18	1,073.67	-959.79	14,367,475.13	879,728.44	39.531311604°N	107.697703761°W
4,200.00	37.95	318.21	3,732.03	1,119.52	-1,000.78	14,367,520.98	879,687.45	39.531434016°N	107.697853840°W
4,300.00	37.95	318.21	3,810.88	1,165.37	-1,041.76	14,367,566.83	879,646.46	39.531556429°N	107.698003920°W
4,400.00	37.95	318.21	3,889.73	1,211.22	-1,082.75	14,367,612.68	879,605.48	39.531678842°N	107.698154000°W
4,417.37	37.95	318.21	3,903.43	1,219.18	-1,089.87	14,367,620.64	879,598.36	39.531700104°N	107.698180068°W
DROP 3°/100 at 4417 MD/3903 TVD									
4,500.00	35.47	318.21	3,969.67	1,256.01	-1,122.79	14,367,657.47	879,565.44	39.531798417°N	107.698300603°W
4,600.00	32.47	318.21	4,052.59	1,297.67	-1,160.03	14,367,699.12	879,528.20	39.531909631°N	107.698436954°W

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B19 (112023) - Slot B19
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 B19 (112023)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B19		
Design:	Gentry B19 P01		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,700.00	29.47	318.21	4,138.32	1,336.03	-1,194.32	14,367,737.49	879,493.90	39.532012054°N	107.698562529°W
4,800.00	26.47	318.21	4,226.62	1,371.00	-1,225.58	14,367,772.45	879,462.65	39.532105406°N	107.698676982°W
4,856.98	24.76	318.21	4,278.00	1,389.36	-1,242.00	14,367,790.82	879,446.23	39.532154442°N	107.698737103°W
Mesaverde									
4,900.00	23.47	318.21	4,317.26	1,402.47	-1,253.72	14,367,803.93	879,434.51	39.532189431°N	107.698780001°W
5,000.00	20.47	318.21	4,409.99	1,430.36	-1,278.65	14,367,831.82	879,409.58	39.532263899°N	107.698871302°W
5,100.00	17.47	318.21	4,504.55	1,454.60	-1,300.32	14,367,856.05	879,387.91	39.532328605°N	107.698950636°W
5,200.00	14.47	318.21	4,600.67	1,475.11	-1,318.65	14,367,876.57	879,369.57	39.532383372°N	107.699017784°W
5,300.00	11.47	318.21	4,698.11	1,491.85	-1,333.61	14,367,893.30	879,354.61	39.532428051°N	107.699072563°W
5,400.00	8.47	318.21	4,796.59	1,504.76	-1,345.16	14,367,906.21	879,343.07	39.532462519°N	107.699114823°W
5,500.00	5.47	318.21	4,895.84	1,513.81	-1,353.25	14,367,915.26	879,334.98	39.532486681°N	107.699144447°W
5,600.00	2.47	318.21	4,995.58	1,518.97	-1,357.86	14,367,920.43	879,330.37	39.532500471°N	107.699161354°W
5,682.44	0.00	318.21	5,078.00	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
VERTICAL at 5682 MD/5078 TVD - Price Coal									
5,700.00	0.00	318.21	5,095.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
5,800.00	0.00	318.21	5,195.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
5,900.00	0.00	318.21	5,295.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,000.00	0.00	318.21	5,395.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,100.00	0.00	318.21	5,495.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,200.00	0.00	318.21	5,595.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,300.00	0.00	318.21	5,695.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,382.44	0.00	318.21	5,778.00	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
Top Gas									
6,400.00	0.00	318.21	5,795.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,500.00	0.00	318.21	5,895.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,600.00	0.00	318.21	5,995.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,700.00	0.00	318.21	6,095.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,800.00	0.00	318.21	6,195.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
6,900.00	0.00	318.21	6,295.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,000.00	0.00	318.21	6,395.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,100.00	0.00	318.21	6,495.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,200.00	0.00	318.21	6,595.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,282.44	0.00	318.21	6,678.00	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
Cameo									
7,300.00	0.00	318.21	6,695.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,400.00	0.00	318.21	6,795.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,500.00	0.00	318.21	6,895.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,600.00	0.00	318.21	6,995.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,700.00	0.00	318.21	7,095.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,800.00	0.00	318.21	7,195.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
7,900.00	0.00	318.21	7,295.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
8,000.00	0.00	318.21	7,395.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
8,100.00	0.00	318.21	7,495.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
8,200.00	0.00	318.21	7,595.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
8,300.00	0.00	318.21	7,695.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
8,382.44	0.00	318.21	7,778.00	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
Rollins									
8,400.00	0.00	318.21	7,795.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
8,500.00	0.00	318.21	7,895.56	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
8,582.44	0.00	318.21	7,978.00	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°W
TD 8582 MD/7978 TVD									

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Gentry B19 (112023) - Slot B19
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 B19 (112023)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Gentry B19		
Design:	Gentry B19 P01		

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									
BH B19	0.00	360.00	7,978.00	1,520.30	-1,359.05	14,367,921.76	879,329.18	39.532504012°N	107.699165696°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		5.500	6.000

Formations					
Measured Depth	Vertical Depth	Name		Lithology	Dip Direction
(ft)	(ft)				(°)
4,856.98	4,278.00	Mesaverde			
5,682.44	5,078.00	Price Coal			
6,382.44	5,778.00	Top Gas			
7,282.44	6,678.00	Cameo			
8,382.44	7,778.00	Rollins			

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	
2,415.07	2,324.57	301.11	-269.18	HOLD 38° at 2415 MD/2325 TVD	
4,417.37	3,903.43	1,219.18	-1,089.87	DROP 3°/100 at 4417 MD/3903 TVD	
5,682.44	5,078.00	1,520.30	-1,359.05	VERTICAL at 5682 MD/5078 TVD	
8,582.44	7,978.00	1,520.30	-1,359.05	TD 8582 MD/7978 TVD	