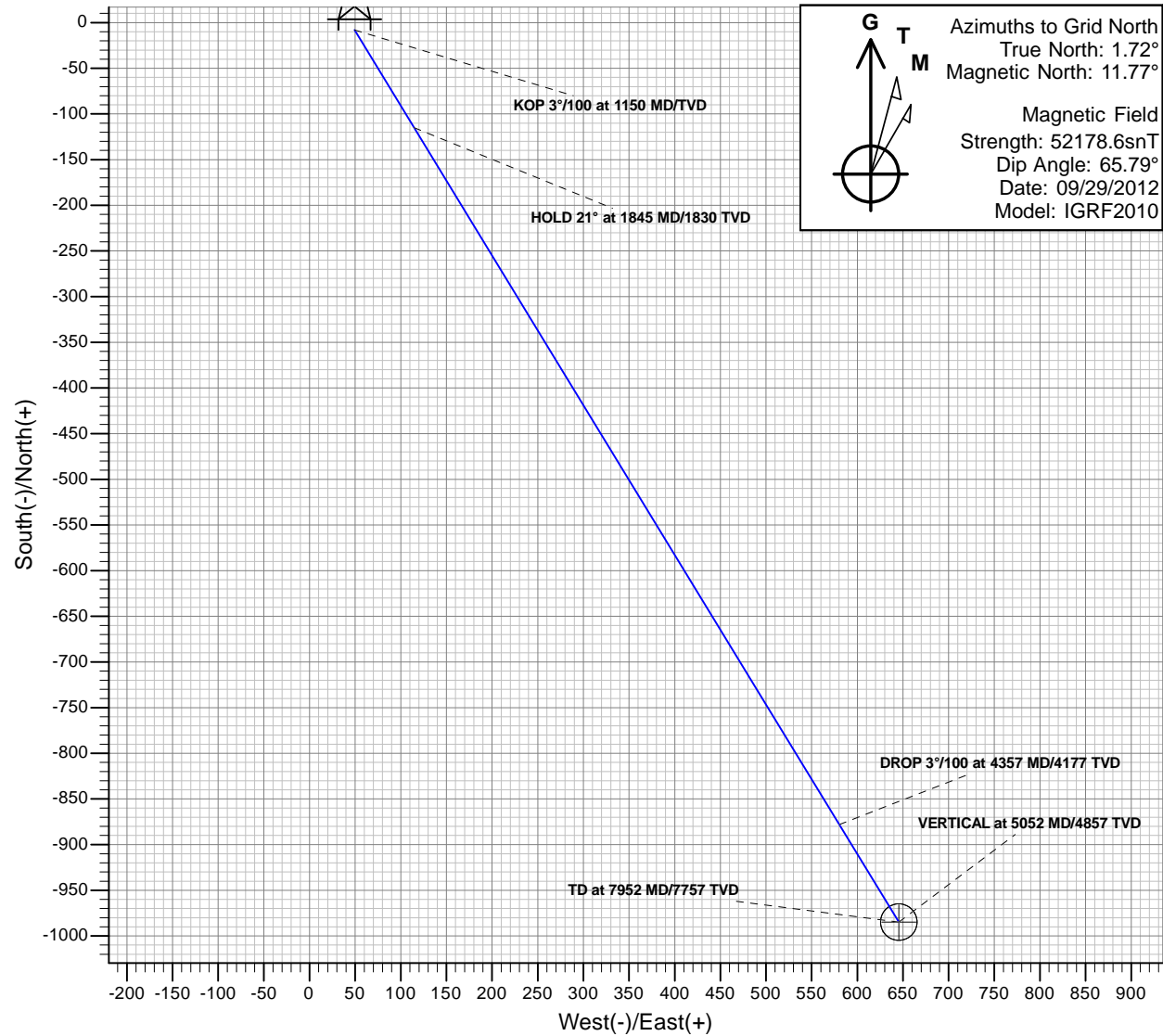
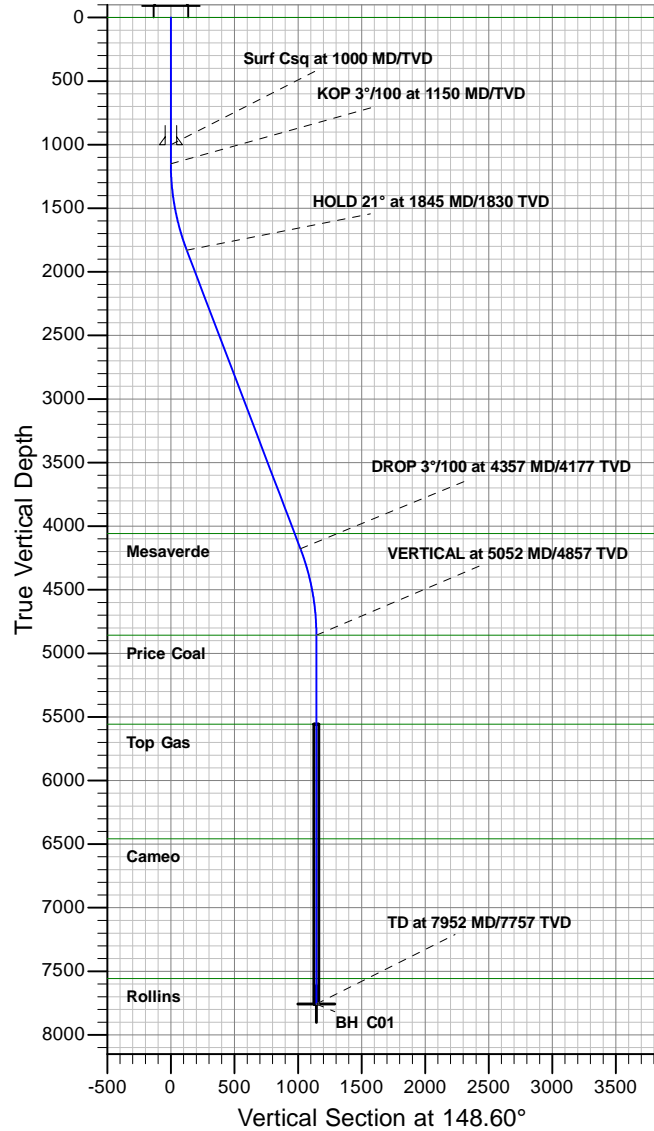




# Antero Resources

Dever C01 (112039)  
Dever C01 P01



## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Site Dever C, Grid North  
Vertical (TVD) Reference: KB @ 5609.00ft (Original Well Elev)  
Section (VS) Reference: Slot - C01(-8.09N, 49.32E)  
Measured Depth Reference: KB @ 5609.00ft (Original Well Elev)  
Calculation Method: Minimum Curvature

## PROJECT DETAILS: Dever

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	V Sect	Target
0.00	0.00	0.00	0.00	-8.09	49.32	0.00	0.00	0.00	
1150.00	0.00	0.00	1150.00	-8.09	49.32	0.00	0.00	0.00	
1845.04	20.85	148.60	1829.80	-114.86	114.48	3.00	148.60	125.08	
4356.95	20.85	148.60	4177.20	-878.05	580.27	0.00	0.00	1019.18	
5051.99	0.00	148.60	4857.00	-984.81	645.43	3.00	180.00	1144.26	
7951.99	0.00	148.60	7757.00	-984.81	645.43	0.00	148.60	1144.26	BH C01



# **Antero Resources**

**Dever**

**Dever C**

**Dever C01 (112039) - Slot C01**

**Dever C01**

**Plan: Dever C01 P01**

## **Standard Planning Report - Geographic**

**10 July, 2012**



<b>Database:</b>	EDM5000	<b>Local Co-ordinate Reference:</b>	Site Dever C
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Project:</b>	Dever	<b>MD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Site:</b>	Dever C	<b>North Reference:</b>	Grid
<b>Well:</b>	Dever C01 (112039)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dever C01		
<b>Design:</b>	Dever C01 P01		

Project	Dever		
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	Dever C					
Site Position:		Northing:	14,366,374.09 usft	Latitude:	39.528240000°N	
From:	Map	Easting:	879,108.20 usft	Longitude:	107.699784000°W	
Position Uncertainty:		0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.72 °

Well	Dever C01 (112039) - Slot C01					
Well Position	+N/-S	-8.09 ft	Northing:	14,366,365.99 usft	Latitude:	39.528221858°N
	+E/-W	49.32 ft	Easting:	879,157.52 usft	Longitude:	107.699608421°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,585.00 ft

Wellbore	Dever C01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/29/12	10.06	65.79	52,179

Design	Dever C01 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	-8.09	49.32	148.60

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	-8.09	49.32	0.00	0.00	0.00	0.00	
1,150.00	0.00	0.00	1,150.00	-8.09	49.32	0.00	0.00	0.00	0.00	
1,845.04	20.85	148.60	1,829.80	-114.86	114.48	3.00	3.00	0.00	148.60	
4,356.95	20.85	148.60	4,177.20	-878.05	580.27	0.00	0.00	0.00	0.00	
5,051.99	0.00	148.60	4,857.00	-984.81	645.43	3.00	-3.00	0.00	180.00	
7,951.99	0.00	148.60	7,757.00	-984.81	645.43	0.00	0.00	0.00	148.60	BH C01

<b>Database:</b>	EDM5000	<b>Local Co-ordinate Reference:</b>	Site Dever C
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Project:</b>	Dever	<b>MD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Site:</b>	Dever C	<b>North Reference:</b>	Grid
<b>Well:</b>	Dever C01 (112039)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dever C01		
<b>Design:</b>	Dever C01 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	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
<b>Wasatch</b>									
100.00	0.00	0.00	100.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
200.00	0.00	0.00	200.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
300.00	0.00	0.00	300.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
400.00	0.00	0.00	400.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
500.00	0.00	0.00	500.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
600.00	0.00	0.00	600.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
700.00	0.00	0.00	700.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
800.00	0.00	0.00	800.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
900.00	0.00	0.00	900.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
1,000.00	0.00	0.00	1,000.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
<b>Surf Csq at 1000 MD/TVD</b>									
1,100.00	0.00	0.00	1,100.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
1,150.00	0.00	0.00	1,150.00	-8.09	49.32	14,366,365.99	879,157.52	39.528221858°N	107.699608421°W
<b>KOP 3°/100 at 1150 MD/TVD</b>									
1,200.00	1.50	148.60	1,199.99	-8.65	49.66	14,366,365.43	879,157.86	39.528220354°N	107.699607154°W
1,300.00	4.50	148.60	1,299.85	-13.12	52.39	14,366,360.97	879,160.59	39.528208324°N	107.699597022°W
1,400.00	7.50	148.60	1,399.29	-22.04	57.83	14,366,352.05	879,166.03	39.528184298°N	107.699576785°W
1,500.00	10.50	148.60	1,498.04	-35.39	65.98	14,366,338.69	879,174.18	39.528148341°N	107.699546499°W
1,600.00	13.50	148.60	1,595.85	-53.14	76.81	14,366,320.95	879,185.01	39.528100552°N	107.699506246°W
1,700.00	16.50	148.60	1,692.43	-75.23	90.29	14,366,298.86	879,198.49	39.528041061°N	107.699456139°W
1,800.00	19.50	148.60	1,787.52	-101.60	106.39	14,366,272.48	879,214.59	39.527970033°N	107.699396312°W
1,845.04	20.85	148.60	1,829.80	-114.86	114.48	14,366,259.23	879,222.68	39.527934323°N	107.699366234°W
<b>HOLD 21° at 1845 MD/1830 TVD</b>									
1,900.00	20.85	148.60	1,881.16	-131.56	124.67	14,366,242.53	879,232.88	39.527889353°N	107.699328357°W
2,000.00	20.85	148.60	1,974.61	-161.94	143.22	14,366,212.14	879,251.42	39.527807529°N	107.699259439°W
2,100.00	20.85	148.60	2,068.06	-192.32	161.76	14,366,181.76	879,269.96	39.527725704°N	107.699190520°W
2,200.00	20.85	148.60	2,161.51	-222.71	180.30	14,366,151.38	879,288.50	39.527643880°N	107.699121602°W
2,300.00	20.85	148.60	2,254.96	-253.09	198.84	14,366,121.00	879,307.05	39.527562056°N	107.699052683°W
2,400.00	20.85	148.60	2,348.41	-283.47	217.39	14,366,090.61	879,325.59	39.527480231°N	107.698983765°W
2,500.00	20.85	148.60	2,441.86	-313.85	235.93	14,366,060.23	879,344.13	39.527398407°N	107.698914847°W
2,600.00	20.85	148.60	2,535.32	-344.24	254.47	14,366,029.85	879,362.68	39.527316583°N	107.698845930°W
2,700.00	20.85	148.60	2,628.77	-374.62	273.02	14,365,999.47	879,381.22	39.527234758°N	107.698777012°W
2,800.00	20.85	148.60	2,722.22	-405.00	291.56	14,365,969.08	879,399.76	39.527152934°N	107.698708095°W
2,900.00	20.85	148.60	2,815.67	-435.39	310.10	14,365,938.70	879,418.30	39.527071109°N	107.698639178°W
3,000.00	20.85	148.60	2,909.12	-465.77	328.65	14,365,908.32	879,436.85	39.526989284°N	107.698570261°W
3,100.00	20.85	148.60	3,002.57	-496.15	347.19	14,365,877.94	879,455.39	39.526907460°N	107.698501344°W
3,200.00	20.85	148.60	3,096.02	-526.53	365.73	14,365,847.55	879,473.93	39.526825635°N	107.698432427°W
3,300.00	20.85	148.60	3,189.47	-556.92	384.27	14,365,817.17	879,492.48	39.526743810°N	107.698363510°W
3,400.00	20.85	148.60	3,282.92	-587.30	402.82	14,365,786.79	879,511.02	39.526661985°N	107.698294594°W
3,500.00	20.85	148.60	3,376.37	-617.68	421.36	14,365,756.40	879,529.56	39.526580160°N	107.698225678°W
3,600.00	20.85	148.60	3,469.82	-648.06	439.90	14,365,726.02	879,548.11	39.526498335°N	107.698156762°W
3,700.00	20.85	148.60	3,563.27	-678.45	458.45	14,365,695.64	879,566.65	39.526416510°N	107.698087846°W
3,800.00	20.85	148.60	3,656.72	-708.83	476.99	14,365,665.26	879,585.19	39.526334685°N	107.698018930°W
3,900.00	20.85	148.60	3,750.18	-739.21	495.53	14,365,634.87	879,603.73	39.526252860°N	107.697950014°W
4,000.00	20.85	148.60	3,843.63	-769.59	514.08	14,365,604.49	879,622.28	39.526171035°N	107.697881099°W
4,100.00	20.85	148.60	3,937.08	-799.98	532.62	14,365,574.11	879,640.82	39.526089210°N	107.697812184°W
4,200.00	20.85	148.60	4,030.53	-830.36	551.16	14,365,543.73	879,659.36	39.526007385°N	107.697743269°W
4,228.33	20.85	148.60	4,057.00	-838.97	556.41	14,365,535.12	879,664.62	39.525984206°N	107.697723747°W
<b>Mesaverde</b>									
4,300.00	20.85	148.60	4,123.98	-860.74	569.71	14,365,513.34	879,677.91	39.525925559°N	107.697674354°W
4,356.95	20.85	148.60	4,177.20	-878.05	580.27	14,365,496.04	879,688.47	39.525878959°N	107.697635106°W
<b>DROP 3°/100 at 4357 MD/4177 TVD</b>									

<b>Database:</b>	EDM5000	<b>Local Co-ordinate Reference:</b>	Site Dever C
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Project:</b>	Dever	<b>MD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Site:</b>	Dever C	<b>North Reference:</b>	Grid
<b>Well:</b>	Dever C01 (112039)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dever C01		
<b>Design:</b>	Dever C01 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	
4,400.00	19.56	148.60	4,217.60	-890.74	588.01	14,365,483.35	879,696.21	39.525844779°N	107.697606319°W	
4,500.00	16.56	148.60	4,312.66	-917.20	604.16	14,365,456.89	879,712.36	39.525773522°N	107.697546305°W	
4,600.00	13.56	148.60	4,409.22	-939.37	617.69	14,365,434.71	879,725.90	39.525713799°N	107.697496006°W	
4,700.00	10.56	148.60	4,507.00	-957.20	628.58	14,365,416.88	879,736.78	39.525665774°N	107.697455559°W	
4,800.00	7.56	148.60	4,605.74	-970.64	636.78	14,365,403.44	879,744.98	39.525629580°N	107.697425075°W	
4,900.00	4.56	148.60	4,705.17	-979.65	642.28	14,365,394.43	879,750.48	39.525605315°N	107.697404639°W	
5,000.00	1.56	148.60	4,805.01	-984.21	645.06	14,365,389.88	879,753.26	39.525593046°N	107.697394306°W	
5,051.99	0.00	148.60	4,857.00	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
VERTICAL at 5052 MD/4857 TVD - Price Coal										
5,100.00	0.00	148.60	4,905.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,200.00	0.00	148.60	5,005.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,300.00	0.00	148.60	5,105.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,400.00	0.00	148.60	5,205.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,500.00	0.00	148.60	5,305.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,600.00	0.00	148.60	5,405.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,700.00	0.00	148.60	5,505.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,751.99	0.00	148.60	5,557.00	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
Top Gas										
5,800.00	0.00	148.60	5,605.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
5,900.00	0.00	148.60	5,705.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,000.00	0.00	148.60	5,805.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,100.00	0.00	148.60	5,905.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,200.00	0.00	148.60	6,005.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,300.00	0.00	148.60	6,105.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,400.00	0.00	148.60	6,205.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,500.00	0.00	148.60	6,305.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,600.00	0.00	148.60	6,405.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,651.99	0.00	148.60	6,457.00	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
Cameo										
6,700.00	0.00	148.60	6,505.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,800.00	0.00	148.60	6,605.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
6,900.00	0.00	148.60	6,705.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,000.00	0.00	148.60	6,805.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,100.00	0.00	148.60	6,905.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,200.00	0.00	148.60	7,005.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,300.00	0.00	148.60	7,105.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,400.00	0.00	148.60	7,205.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,500.00	0.00	148.60	7,305.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,600.00	0.00	148.60	7,405.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,700.00	0.00	148.60	7,505.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,751.99	0.00	148.60	7,557.00	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
Rollins										
7,800.00	0.00	148.60	7,605.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,900.00	0.00	148.60	7,705.01	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
7,951.99	0.00	148.60	7,757.00	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W	
TD at 7952 MD/7757 TVD - BH C01										

<b>Database:</b>	EDM5000	<b>Local Co-ordinate Reference:</b>	Site Dever C
<b>Company:</b>	Antero Resources	<b>TVD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Project:</b>	Dever	<b>MD Reference:</b>	KB @ 5609.00ft (Original Well Elev)
<b>Site:</b>	Dever C	<b>North Reference:</b>	Grid
<b>Well:</b>	Dever C01 (112039)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Dever C01		
<b>Design:</b>	Dever C01 P01		

Design Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
BH C01	0.00	360.00	7,757.00	-984.81	645.43	14,365,389.27	879,753.63	39.525591419°N	107.697392936°W
- plan hits target center									
- Circle (radius 20.00)									

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.00	0.00	Wasatch				
4,228.33	4,057.00	Mesaverde				
5,051.99	4,857.00	Price Coal				
5,751.99	5,557.00	Top Gas				
6,651.99	6,457.00	Cameo				
7,751.99	7,557.00	Rollins				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,150.00	1,150.00	-8.09	49.32	KOP 3°/100 at 1150 MD/TVD	
1,845.04	1,829.80	-114.86	114.48	HOLD 21° at 1845 MD/1830 TVD	
4,356.95	4,177.20	-878.05	580.27	DROP 3°/100 at 4357 MD/4177 TVD	
5,051.99	4,857.00	-984.81	645.43	VERTICAL at 5052 MD/4857 TVD	
7,951.99	7,757.00	-984.81	645.43	TD at 7952 MD/7757 TVD	