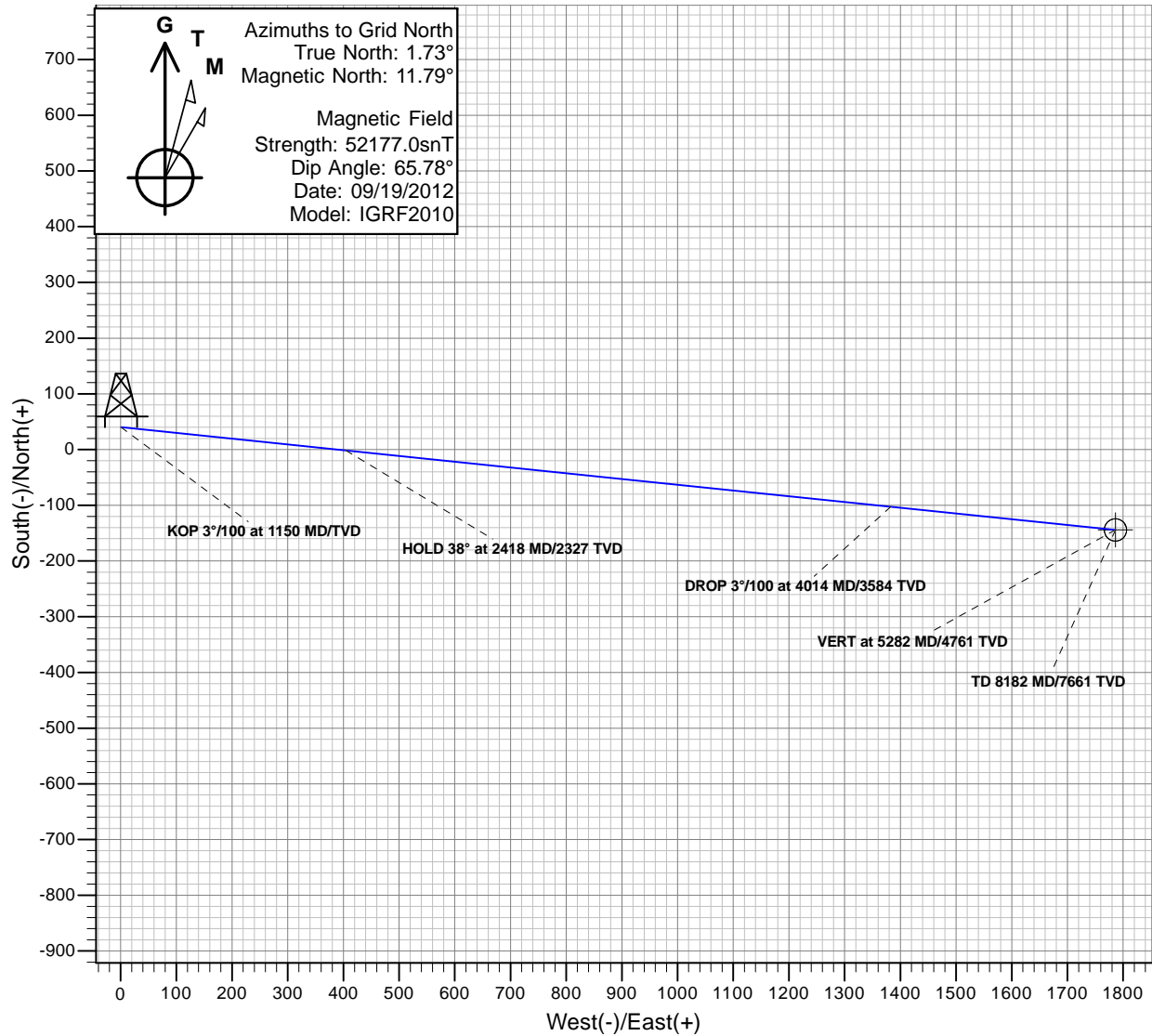
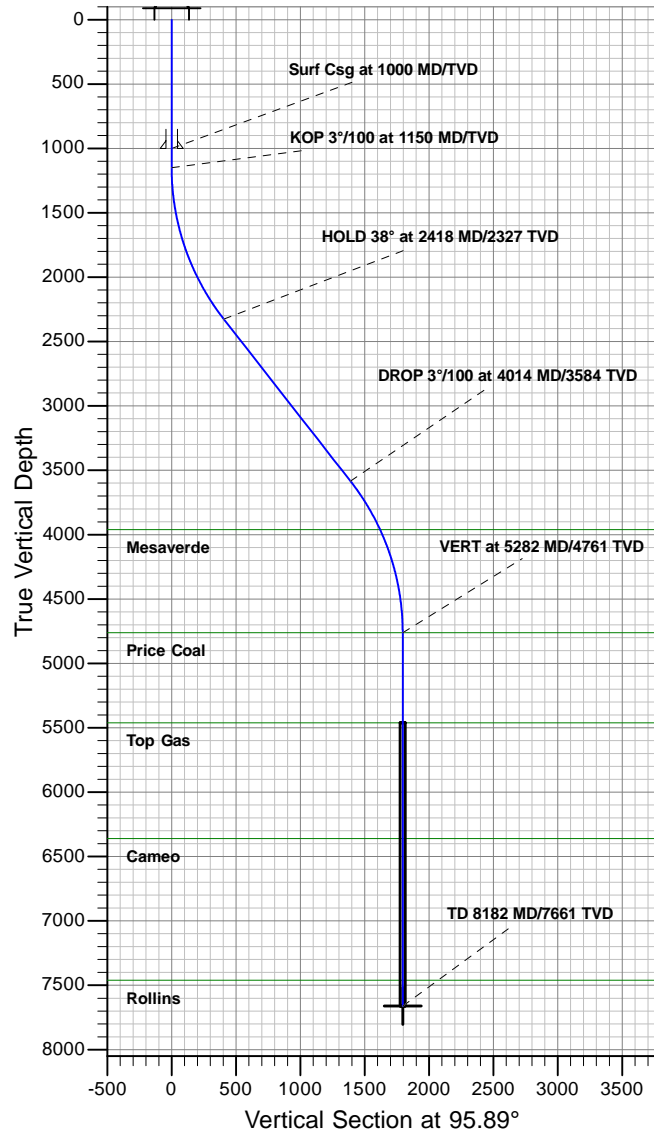




Antero Resources

Dever A14 (112037)
Dever A14



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Site Dever A, Grid North
Vertical (TVD) Reference: RKB @ 5596.00ft
Section (VS) Reference: Slot - (39.99N, 0.94E)
Measured Depth Reference: RKB @ 5596.00ft
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	VSect	Target
0.00	0.00	0.00	0.00	39.99	0.94	0.00	0.00	0.00	
1150.00	0.00	0.00	1150.00	39.99	0.94	0.00	0.00	0.00	
2417.71	38.03	95.89	2326.65	-1.66	404.31	3.00	95.89	405.51	
4014.44	38.03	95.89	3584.35	-102.68	1382.84	0.00	0.00	1389.24	
5282.15	0.00	95.89	4761.00	-144.33	1786.21	3.00	180.00	1794.76	
8182.15	0.00	95.89	7661.00	-144.33	1786.21	0.00	95.89	1794.76	A14 BH



Antero Resources

Dever

Dever A

Dever A14 (112037)

Dever A14

Plan: Dever A14

Standard Planning Report - Geographic

21 June, 2012



Database:	EDM5000	Local Co-ordinate Reference:	Site Dever A
Company:	Antero Resources	TVD Reference:	RKB @ 5596.00ft
Project:	Dever	MD Reference:	RKB @ 5596.00ft
Site:	Dever A	North Reference:	Grid
Well:	Dever A14 (112037)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever A14		
Design:	Dever A14		

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 A			
Site Position: From:	Map	Northing:	14,364,188.06 usft	Latitude:	39.522029499°N
		Easting:	876,519.77 usft	Longitude:	107.708720443°W
		Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in

Well	Dever A14 (112037)					
Well Position	+N/-S	39.99 ft	Northing:	14,364,228.05 usft	Latitude:	39.522139280°N
	+E/-W	0.94 ft	Easting:	876,520.71 usft	Longitude:	107.708721378°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,572.00 ft

Wellbore	Dever A14				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/19/12	10.06	65.78	52,177

Design	Dever A14			
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	39.99	0.94	95.89

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	39.99	0.94	0.00	0.00	0.00	0.00	
1,150.00	0.00	0.00	1,150.00	39.99	0.94	0.00	0.00	0.00	0.00	
2,417.71	38.03	95.89	2,326.65	-1.66	404.31	3.00	3.00	0.00	95.89	
4,014.44	38.03	95.89	3,584.35	-102.68	1,382.84	0.00	0.00	0.00	0.00	
5,282.15	0.00	95.89	4,761.00	-144.33	1,786.21	3.00	-3.00	0.00	180.00	
8,182.15	0.00	95.89	7,661.00	-144.33	1,786.21	0.00	0.00	0.00	95.89	A14 BH

Database:	EDM5000	Local Co-ordinate Reference:	Site Dever A
Company:	Antero Resources	TVD Reference:	RKB @ 5596.00ft
Project:	Dever	MD Reference:	RKB @ 5596.00ft
Site:	Dever A	North Reference:	Grid
Well:	Dever A14 (112037)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever A14		
Design:	Dever A14		

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	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
100.00	0.00	0.00	100.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
200.00	0.00	0.00	200.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
300.00	0.00	0.00	300.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
400.00	0.00	0.00	400.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
500.00	0.00	0.00	500.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
600.00	0.00	0.00	600.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
700.00	0.00	0.00	700.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
800.00	0.00	0.00	800.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
900.00	0.00	0.00	900.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
1,000.00	0.00	0.00	1,000.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
1,150.00	0.00	0.00	1,150.00	39.99	0.94	14,364,228.05	876,520.71	39.522139280°N	107.708721378°W
KOP 3°/100 at 1150 MD/TVD									
1,200.00	1.50	95.89	1,199.99	39.92	1.59	14,364,227.98	876,521.36	39.522139149°N	107.708719065°W
1,300.00	4.50	95.89	1,299.85	39.38	6.80	14,364,227.44	876,526.56	39.522138105°N	107.708700569°W
1,400.00	7.50	95.89	1,399.29	38.31	17.19	14,364,226.37	876,536.96	39.522136019°N	107.708663629°W
1,500.00	10.50	95.89	1,498.04	36.70	32.75	14,364,224.76	876,552.52	39.522132897°N	107.708608344°W
1,600.00	13.50	95.89	1,595.85	34.57	53.43	14,364,222.63	876,573.20	39.522128748°N	107.708534868°W
1,700.00	16.50	95.89	1,692.43	31.91	79.17	14,364,219.97	876,598.94	39.522123583°N	107.708443401°W
1,800.00	19.50	95.89	1,787.52	28.74	109.91	14,364,216.80	876,629.67	39.522117417°N	107.708334193°W
1,900.00	22.50	95.89	1,880.87	25.06	145.55	14,364,213.12	876,665.32	39.522110265°N	107.708207545°W
2,000.00	25.50	95.89	1,972.22	20.88	186.00	14,364,208.94	876,705.77	39.522102147°N	107.708063804°W
2,100.00	28.50	95.89	2,061.31	16.22	231.16	14,364,204.28	876,750.92	39.522093087°N	107.707903362°W
2,200.00	31.50	95.89	2,147.90	11.09	280.89	14,364,199.14	876,800.65	39.522083108°N	107.707726661°W
2,300.00	34.50	95.89	2,231.76	5.49	335.06	14,364,193.55	876,854.82	39.522072238°N	107.707534185°W
2,400.00	37.50	95.89	2,312.65	-0.54	393.52	14,364,187.52	876,913.28	39.522060506°N	107.707326460°W
2,417.71	38.03	95.89	2,326.65	-1.66	404.31	14,364,186.40	876,924.07	39.522058341°N	107.707288127°W
HOLD 38° at 2418 MD/2327 TVD									
2,500.00	38.03	95.89	2,391.47	-6.86	454.74	14,364,181.20	876,974.50	39.522048220°N	107.707108937°W
2,600.00	38.03	95.89	2,470.23	-13.19	516.02	14,364,174.87	877,035.79	39.522035921°N	107.706891184°W
2,700.00	38.03	95.89	2,549.00	-19.52	577.31	14,364,168.54	877,097.07	39.522023622°N	107.706673431°W
2,800.00	38.03	95.89	2,627.77	-25.84	638.59	14,364,162.21	877,158.35	39.522011322°N	107.706455679°W
2,900.00	38.03	95.89	2,706.54	-32.17	699.87	14,364,155.89	877,219.64	39.521999022°N	107.706237926°W
3,000.00	38.03	95.89	2,785.30	-38.50	761.16	14,364,149.56	877,280.92	39.521986721°N	107.706020173°W
3,100.00	38.03	95.89	2,864.07	-44.83	822.44	14,364,143.23	877,342.20	39.521974420°N	107.705802421°W
3,200.00	38.03	95.89	2,942.84	-51.15	883.72	14,364,136.91	877,403.49	39.521962119°N	107.705584669°W
3,300.00	38.03	95.89	3,021.61	-57.48	945.01	14,364,130.58	877,464.77	39.521949817°N	107.705366916°W
3,400.00	38.03	95.89	3,100.37	-63.81	1,006.29	14,364,124.25	877,526.05	39.521937515°N	107.705149164°W
3,500.00	38.03	95.89	3,179.14	-70.13	1,067.57	14,364,117.92	877,587.34	39.521925212°N	107.704931412°W
3,600.00	38.03	95.89	3,257.91	-76.46	1,128.86	14,364,111.60	877,648.62	39.521912909°N	107.704713659°W
3,700.00	38.03	95.89	3,336.68	-82.79	1,190.14	14,364,105.27	877,709.90	39.521900606°N	107.704495907°W
3,800.00	38.03	95.89	3,415.44	-89.12	1,251.42	14,364,098.94	877,771.19	39.521888302°N	107.704278155°W
3,900.00	38.03	95.89	3,494.21	-95.44	1,312.71	14,364,092.62	877,832.47	39.521875997°N	107.704060403°W
4,000.00	38.03	95.89	3,572.98	-101.77	1,373.99	14,364,086.29	877,893.75	39.521863693°N	107.703842651°W
4,014.44	38.03	95.89	3,584.35	-102.68	1,382.84	14,364,085.37	877,902.60	39.521861916°N	107.703811209°W
DROP 3°/100 at 4014 MD/3584 TVD									
4,100.00	35.46	95.89	3,652.90	-107.94	1,433.75	14,364,080.12	877,953.52	39.521851693°N	107.703630296°W
4,200.00	32.46	95.89	3,735.83	-113.68	1,489.32	14,364,074.38	878,009.08	39.521840535°N	107.703432859°W
4,300.00	29.46	95.89	3,821.57	-118.96	1,540.49	14,364,069.10	878,060.26	39.521830260°N	107.703251032°W
4,400.00	26.46	95.89	3,909.89	-123.78	1,587.13	14,364,064.28	878,106.89	39.521820894°N	107.703085315°W
4,456.69	24.76	95.89	3,961.00	-126.29	1,611.51	14,364,061.77	878,131.27	39.521815999°N	107.702998702°W
Mesaverde									

Database:	EDM5000	Local Co-ordinate Reference:	Site Dever A
Company:	Antero Resources	TVD Reference:	RKB @ 5596.00ft
Project:	Dever	MD Reference:	RKB @ 5596.00ft
Site:	Dever A	North Reference:	Grid
Well:	Dever A14 (112037)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever A14		
Design:	Dever A14		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,500.00	23.46	95.89	4,000.53	-128.11	1,629.11	14,364,059.95	878,148.87	39.521812464°N	107.702936160°W
4,600.00	20.46	95.89	4,093.26	-131.95	1,666.31	14,364,056.11	878,186.07	39.521804994°N	107.702803977°W
4,700.00	17.46	95.89	4,187.82	-135.29	1,698.63	14,364,052.77	878,218.40	39.521798503°N	107.702689129°W
4,800.00	14.46	95.89	4,283.96	-138.11	1,725.99	14,364,049.95	878,245.75	39.521793009°N	107.702591929°W
4,900.00	11.46	95.89	4,381.40	-140.42	1,748.30	14,364,047.64	878,268.06	39.521788528°N	107.702512645°W
5,000.00	8.46	95.89	4,479.88	-142.19	1,765.51	14,364,045.87	878,285.27	39.521785072°N	107.702451494°W
5,100.00	5.46	95.89	4,579.13	-143.44	1,777.57	14,364,044.62	878,297.33	39.521782650°N	107.702408643°W
5,200.00	2.46	95.89	4,678.88	-144.15	1,784.45	14,364,043.91	878,304.21	39.521781269°N	107.702384209°W
5,282.15	0.00	95.89	4,761.00	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
VERT at 5282 MD/4761 TVD - Price Coal									
5,300.00	0.00	95.89	4,778.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
5,400.00	0.00	95.89	4,878.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
5,500.00	0.00	95.89	4,978.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
5,600.00	0.00	95.89	5,078.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
5,700.00	0.00	95.89	5,178.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
5,800.00	0.00	95.89	5,278.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
5,900.00	0.00	95.89	5,378.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
5,982.15	0.00	95.89	5,461.00	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
Top Gas									
6,000.00	0.00	95.89	5,478.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,100.00	0.00	95.89	5,578.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,200.00	0.00	95.89	5,678.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,300.00	0.00	95.89	5,778.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,400.00	0.00	95.89	5,878.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,500.00	0.00	95.89	5,978.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,600.00	0.00	95.89	6,078.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,700.00	0.00	95.89	6,178.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,800.00	0.00	95.89	6,278.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
6,882.15	0.00	95.89	6,361.00	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
Cameo									
6,900.00	0.00	95.89	6,378.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,000.00	0.00	95.89	6,478.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,100.00	0.00	95.89	6,578.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,200.00	0.00	95.89	6,678.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,300.00	0.00	95.89	6,778.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,400.00	0.00	95.89	6,878.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,500.00	0.00	95.89	6,978.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,600.00	0.00	95.89	7,078.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,700.00	0.00	95.89	7,178.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,800.00	0.00	95.89	7,278.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,900.00	0.00	95.89	7,378.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
7,982.15	0.00	95.89	7,461.00	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
Rollins									
8,000.00	0.00	95.89	7,478.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
8,100.00	0.00	95.89	7,578.85	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
8,182.15	0.00	95.89	7,661.00	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°W
TD 8182 MD/7661 TVD - A14 BH									

Database:	EDM5000	Local Co-ordinate Reference:	Site Dever A
Company:	Antero Resources	TVD Reference:	RKB @ 5596.00ft
Project:	Dever	MD Reference:	RKB @ 5596.00ft
Site:	Dever A	North Reference:	Grid
Well:	Dever A14 (112037)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dever A14		
Design:	Dever A14		

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									
A14 BH	0.00	360.00	7,661.00	-144.33	1,786.21	14,364,043.73	878,305.97	39.521780916°N	107.702377966°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		Dip	Dip Direction
(ft)	(ft)			(°)	(°)
4,456.69	3,961.00	Mesaverde			
5,282.15	4,761.00	Price Coal			
5,982.15	5,461.00	Top Gas			
6,882.15	6,361.00	Cameo			
7,982.15	7,461.00	Rollins			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)		
1,150.00	1,150.00	39.99	0.94	KOP 3°/100 at 1150 MD/TVD	
2,417.71	2,326.65	-1.66	404.31	HOLD 38° at 2418 MD/2327 TVD	
4,014.44	3,584.35	-102.68	1,382.84	DROP 3°/100 at 4014 MD/3584 TVD	
5,282.15	4,761.00	-144.33	1,786.21	VERT at 5282 MD/4761 TVD	
8,182.15	7,661.00	-144.33	1,786.21	TD 8182 MD/7661 TVD	