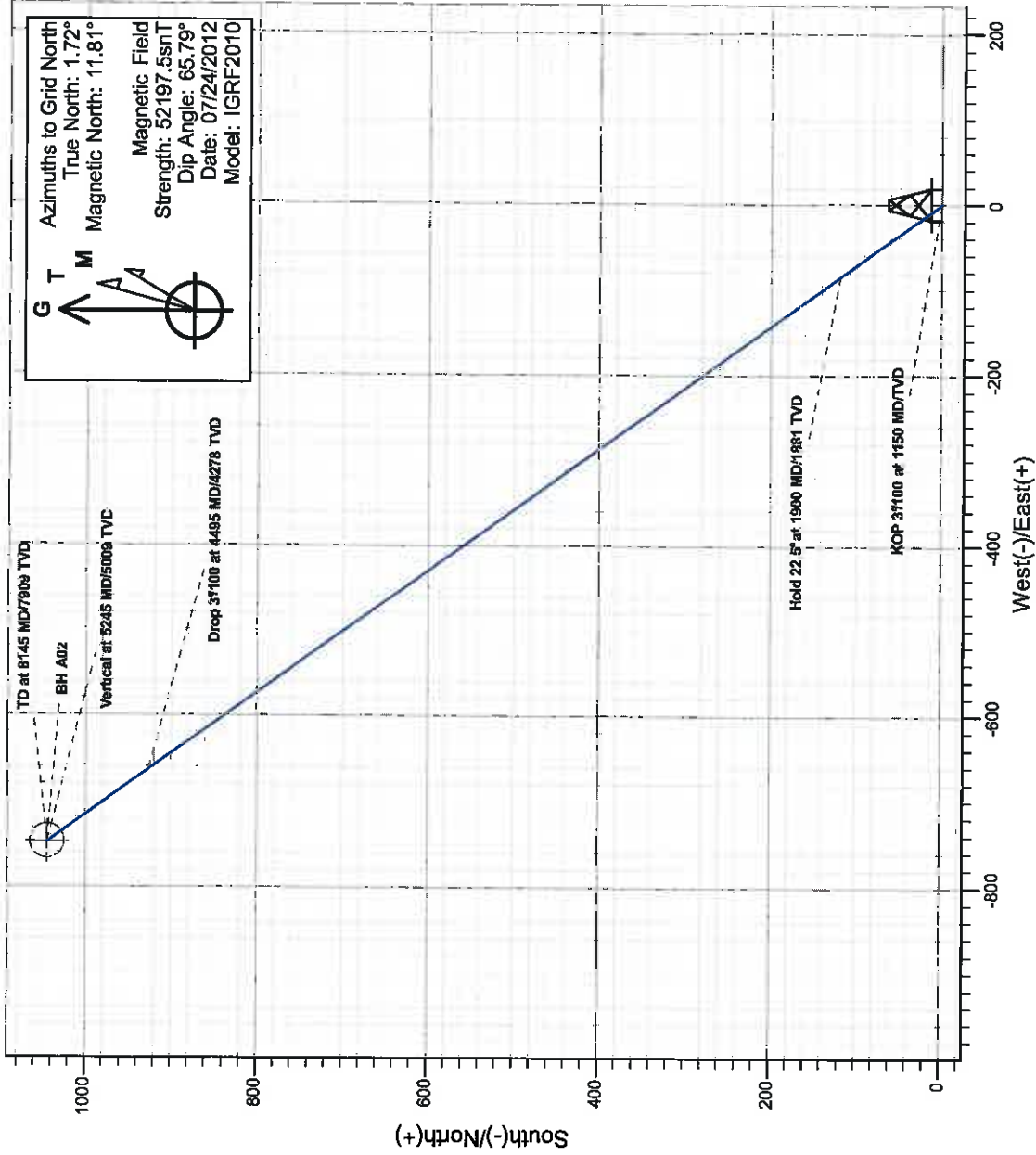


REFERENCE INFORMATION

ordinate (N/E) Reference: Well Dixon A02 (112008) - Slot A02, Grid North  
Vertical (TVD) Reference: KB @ 5559.00ft (Original Well Elev)  
Section (VS) Reference: Slot - A02(0.00N, 0.00E)  
Measured Depth Reference: KB @ 5559.00ft (Original Well Elev)  
Calculation Method: Minimum Curvature



PROJECT DETAILS: Dixon

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	VSeal	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	
1900.31	22.51	324.40	1881.16	118.31	-80.89	3.00	324.40	145.56	
4494.64	22.51	324.40	4277.84	925.89	-682.83	0.00	0.00	1135.89	
5244.95	0.00	324.40	5009.00	1044.20	-747.53	3.00	180.00	1284.18	
8144.95	0.00	324.40	7909.00	1044.20	-747.53	0.00	324.40	1284.18	BH A02

# **Antero Resources**

**Dixon**

**Dixon A**

**Dixon A02 (112008) - Slot A02**

**Dixon A02**

**Plan: Dixon A02 P01**

## **Standard Planning Report - Geographic**

**26 April, 2012**

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A02 (112008) - Slot A02
Company:	Antero Resources	TVD Reference:	KB @ 5559 00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559 00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Gnd
Well:	Dixon A02 (112008)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A02		
Design:	Dixon A02 P01		

Project	Dixon		
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	Dixon A		
Site Position:		Northing:	14,366,922.96 usft
From:	Map	Easting:	877,460.93 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	39.529609988°N
		Longitude:	107.705677999°W
		Grid Convergence:	-1.72 °

Well	Dixon A02 (112008) - Slot A02		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.529606243°N
		Longitude:	107.705997476°W
		Ground Level:	5,535.00 ft

Wellbore	Dixon A02				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/24/12	10.08	65.79	52,198

Design	Dixon A02 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	324.40

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	
1,900.31	22.51	324.40	1,881.16	118.31	-84.69	3.00	3.00	0.00	324.40	
4,494.64	22.51	324.40	4,277.84	925.89	-662.83	0.00	0.00	0.00	0.00	
5,244.95	0.00	324.40	5,009.00	1,044.20	-747.53	3.00	-3.00	0.00	180.00	
8,144.95	0.00	324.40	7,909.00	1,044.20	-747.53	0.00	0.00	0.00	324.40	BH A02

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A02 (112008) - Slot A02
Company:	Antero Resources	TVD Reference:	KB @ 5559 00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559 00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Grid
Well:	Dixon A02 (112008)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A02		
Design:	Dixon A02 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	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
Surf Csg at 1000 MD/TVD									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
1,150.00	0.00	0.00	1,150.00	0.00	0.00	14,366,924.31	877,370.79	39.529606243°N	107.705997476°W
KOP 3°/100 at 1150 MD/TVD									
1,200.00	1.50	324.40	1,199.99	0.53	-0.38	14,366,924.84	877,370.41	39.529607672°N	107.705998882°W
1,300.00	4.50	324.40	1,299.85	4.79	-3.43	14,366,929.10	877,367.36	39.529619093°N	107.706010127°W
1,400.00	7.50	324.40	1,399.29	13.29	-9.51	14,366,937.59	877,361.28	39.529641905°N	107.706032585°W
1,500.00	10.50	324.40	1,498.04	26.00	-18.62	14,366,950.31	877,352.18	39.529676045°N	107.706066196°W
1,600.00	13.50	324.40	1,595.85	42.91	-30.72	14,366,967.22	877,340.07	39.529721419°N	107.706110867°W
1,700.00	16.50	324.40	1,692.43	63.95	-45.78	14,366,988.26	877,325.01	39.529777903°N	107.706166476°W
1,800.00	19.50	324.40	1,787.52	89.07	-63.77	14,367,013.38	877,307.02	39.529845342°N	107.706232870°W
1,900.00	22.50	324.40	1,880.87	118.21	-84.63	14,367,042.52	877,286.17	39.529923551°N	107.706309868°W
1,900.31	22.51	324.40	1,881.16	118.31	-84.69	14,367,042.62	877,286.10	39.529923808°N	107.706310122°W
Hold 22 5° at 1900 MD/1881 TVD									
2,000.00	22.51	324.40	1,973.25	149.34	-106.91	14,367,073.65	877,263.88	39.530007108°N	107.706392132°W
2,100.00	22.51	324.40	2,065.64	180.47	-129.19	14,367,104.78	877,241.60	39.530090666°N	107.706474396°W
2,200.00	22.51	324.40	2,158.02	211.60	-151.48	14,367,135.91	877,219.31	39.530174223°N	107.706556660°W
2,300.00	22.51	324.40	2,250.40	242.73	-173.76	14,367,167.03	877,197.03	39.530257780°N	107.706638924°W
2,400.00	22.51	324.40	2,342.78	273.85	-196.05	14,367,198.16	877,174.74	39.530341337°N	107.706721189°W
2,500.00	22.51	324.40	2,435.16	304.98	-218.33	14,367,229.29	877,152.46	39.530424895°N	107.706803454°W
2,600.00	22.51	324.40	2,527.54	336.11	-240.62	14,367,260.42	877,130.17	39.530508452°N	107.706885719°W
2,700.00	22.51	324.40	2,619.93	367.24	-262.90	14,367,291.55	877,107.89	39.530592009°N	107.706967984°W
2,800.00	22.51	324.40	2,712.31	398.37	-285.19	14,367,322.68	877,085.60	39.530675566°N	107.707050249°W
2,900.00	22.51	324.40	2,804.69	429.50	-307.47	14,367,353.81	877,063.32	39.530759123°N	107.707132515°W
3,000.00	22.51	324.40	2,897.07	460.63	-329.76	14,367,384.94	877,041.04	39.530842680°N	107.707214781°W
3,100.00	22.51	324.40	2,989.45	491.76	-352.04	14,367,416.06	877,018.75	39.530926236°N	107.707297047°W
3,200.00	22.51	324.40	3,081.83	522.88	-374.33	14,367,447.19	876,996.47	39.531009793°N	107.707379313°W
3,300.00	22.51	324.40	3,174.22	554.01	-396.61	14,367,478.32	876,974.18	39.531093350°N	107.707461579°W
3,400.00	22.51	324.40	3,266.60	585.14	-418.90	14,367,509.45	876,951.90	39.531176906°N	107.707543846°W
3,500.00	22.51	324.40	3,358.98	616.27	-441.18	14,367,540.58	876,929.61	39.531260463°N	107.707626113°W
3,600.00	22.51	324.40	3,451.36	647.40	-463.46	14,367,571.71	876,907.33	39.531344019°N	107.707708380°W
3,700.00	22.51	324.40	3,543.74	678.53	-485.75	14,367,602.84	876,885.04	39.531427576°N	107.707790647°W
3,800.00	22.51	324.40	3,636.13	709.66	-508.03	14,367,633.96	876,862.76	39.531511132°N	107.707872914°W
3,900.00	22.51	324.40	3,728.51	740.79	-530.32	14,367,665.09	876,840.47	39.531594688°N	107.707955182°W
4,000.00	22.51	324.40	3,820.89	771.91	-552.60	14,367,696.22	876,818.19	39.531678244°N	107.708037450°W
4,100.00	22.51	324.40	3,913.27	803.04	-574.89	14,367,727.35	876,795.90	39.531761800°N	107.708119718°W
4,200.00	22.51	324.40	4,005.65	834.17	-597.17	14,367,758.48	876,773.62	39.531845356°N	107.708201986°W
4,300.00	22.51	324.40	4,098.03	865.30	-619.46	14,367,789.61	876,751.34	39.531928912°N	107.708284254°W
4,400.00	22.51	324.40	4,190.42	896.43	-641.74	14,367,820.74	876,729.05	39.532012468°N	107.708366523°W
4,420.12	22.51	324.40	4,209.00	902.69	-646.23	14,367,827.00	876,724.57	39.532029277°N	107.708383072°W
Mesaverde									

Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A02 (112008) - Slot A02
Company:	Antero Resources	TVD Reference:	KB @ 5559 00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559 00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Gnd
Well:	Dixon A02 (112008)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A02		
Design:	Dixon A02 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
4,494.64	22.51	324.40	4,277.84	925.89	-662.83	14,367,850.20	876,707.96	39.532091544°N	107.708444380°W
Drop 3°/100 at 4495 MD/4278 TVD									
4,500.00	22.35	324.40	4,282.80	927.55	-664.02	14,367,851.86	876,706.77	39.532096009°N	107.708448777°W
4,600.00	19.35	324.40	4,376.24	956.49	-684.74	14,367,880.80	876,686.06	39.532173677°N	107.708525248°W
4,700.00	16.35	324.40	4,471.42	981.41	-702.58	14,367,905.71	876,668.22	39.532240565°N	107.708591106°W
4,800.00	13.35	324.40	4,568.07	1,002.24	-717.49	14,367,926.55	876,653.30	39.532296489°N	107.708646170°W
4,900.00	10.35	324.40	4,665.93	1,018.94	-729.44	14,367,943.24	876,641.35	39.532374865°N	107.708690288°W
5,000.00	7.35	324.40	4,764.73	1,031.44	-738.40	14,367,955.75	876,632.40	39.532374865°N	107.708690288°W
5,100.00	4.35	324.40	4,864.19	1,039.73	-744.33	14,367,964.03	876,626.47	39.532397102°N	107.708745234°W
5,200.00	1.35	324.40	4,964.06	1,043.77	-747.22	14,367,968.07	876,623.57	39.532407947°N	107.708755912°W
5,244.95	0.00	324.40	5,009.00	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
Vertical at 5245 MD/5009 TVD - Price Coal									
5,300.00	0.00	324.40	5,064.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
5,400.00	0.00	324.40	5,164.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
5,500.00	0.00	324.40	5,264.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
5,600.00	0.00	324.40	5,364.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
5,700.00	0.00	324.40	5,464.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
5,800.00	0.00	324.40	5,564.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
5,900.00	0.00	324.40	5,664.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
5,944.95	0.00	324.40	5,709.00	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
Top Gas									
6,000.00	0.00	324.40	5,764.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,100.00	0.00	324.40	5,864.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,200.00	0.00	324.40	5,964.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,300.00	0.00	324.40	6,064.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,400.00	0.00	324.40	6,164.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,500.00	0.00	324.40	6,264.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,600.00	0.00	324.40	6,364.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,700.00	0.00	324.40	6,464.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,800.00	0.00	324.40	6,564.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
6,844.95	0.00	324.40	6,609.00	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
Cameo									
6,900.00	0.00	324.40	6,664.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,000.00	0.00	324.40	6,764.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,100.00	0.00	324.40	6,864.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,200.00	0.00	324.40	6,964.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,300.00	0.00	324.40	7,064.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,400.00	0.00	324.40	7,164.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,500.00	0.00	324.40	7,264.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,600.00	0.00	324.40	7,364.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,700.00	0.00	324.40	7,464.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,800.00	0.00	324.40	7,564.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,900.00	0.00	324.40	7,664.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
7,944.95	0.00	324.40	7,709.00	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
Rollins									
8,000.00	0.00	324.40	7,764.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
8,100.00	0.00	324.40	7,864.05	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
8,144.95	0.00	324.40	7,909.00	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°W
TD at 8145 MD/7909 TVD									



Planning Report - Geographic

Database:	EDM5000-New	Local Co-ordinate Reference:	Well Dixon A02 (112008) - Slot A02
Company:	Antero Resources	TVD Reference:	KB @ 5559.00ft (Original Well Elev)
Project:	Dixon	MD Reference:	KB @ 5559.00ft (Original Well Elev)
Site:	Dixon A	North Reference:	Grid
Well:	Dixon A02 (112008)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dixon A02		
Design:	Dixon A02 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 A02	0.00	360.00	7,909.00	1,044.20	-747.53	14,367,968.50	876,623.27	39.532409101°N	107.708757048°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	Dip Direction
(ft)	(ft)			(°)	(°)
0.00	0.00	Wasatch			
4,420.12	4,209.00	Mesaverde			
5,244.95	5,009.00	Price Coal			
5,944.95	5,709.00	Top Gas			
6,844.95	6,609.00	Cameo			
7,944.95	7,709.00	Rollins			

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	
1,150.00	1,150.00	0.00	0.00	KOP 3°/100 at 1150 MD/TVD
1,900.31	1,881.16	118.31	-84.69	Hold 22.5° at 1900 MD/1881 TVD
4,494.64	4,277.84	925.89	-662.83	Drop 3°/100 at 4495 MD/4278 TVD
5,244.95	5,009.00	1,044.20	-747.53	Vertical at 5245 MD/5009 TVD
8,144.95	7,909.00	1,044.20	-747.53	TD at 8145 MD/7909 TVD