

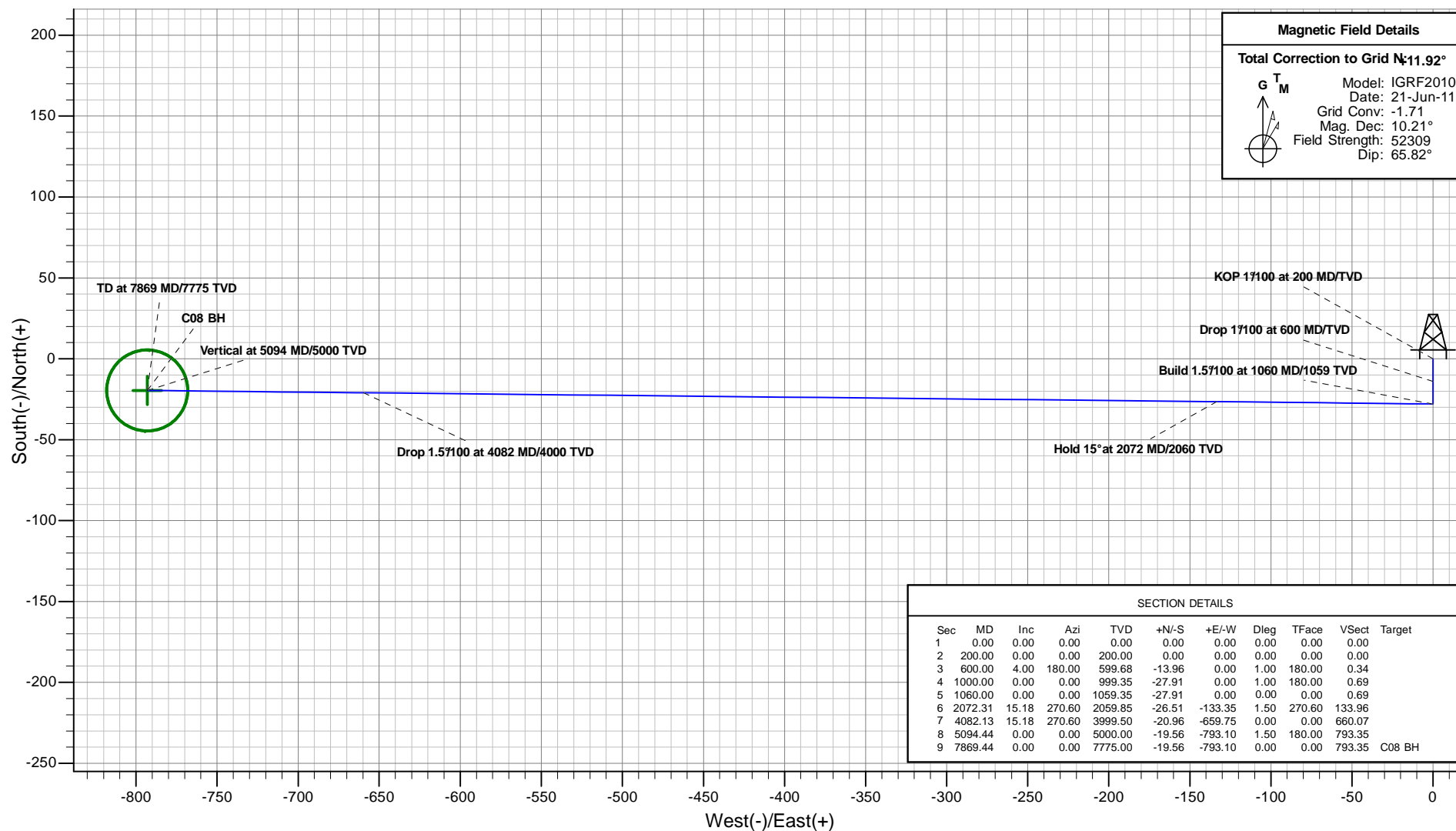


PLAN VIEW

Antero Resources

C08 (111355)

Project: Robinson
Site: Robinson C Pad
Well: C08 (111355)
Wellbore: C08
Design: C08_P02



Plan: C08_P02
Created By: ARK Directional Services
Date: 11:05, April 13 2011

PROJECT DETAILS: Robinson

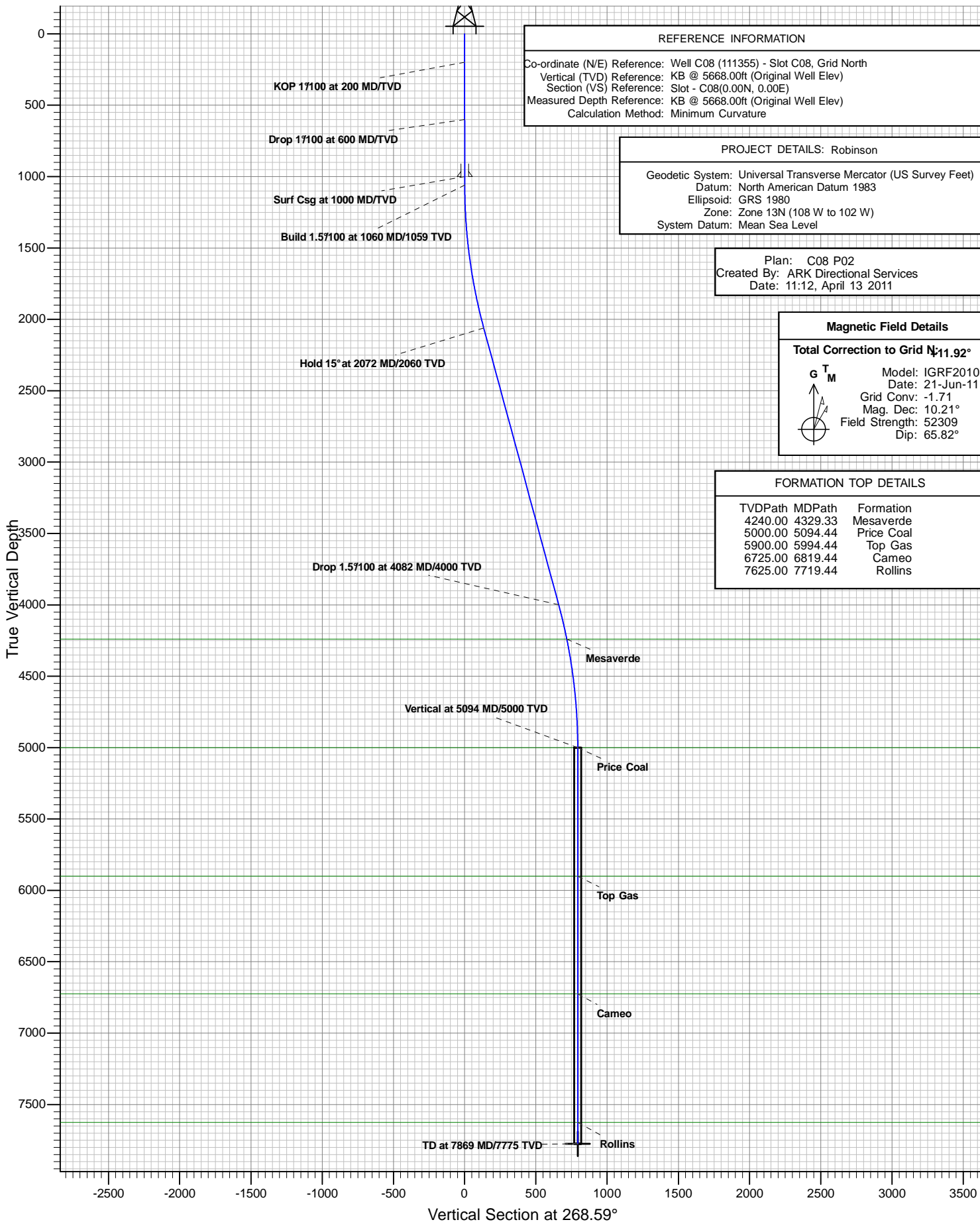
Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well C08 (111355) - Slot C08, Grid North
Vertical (TVD) Reference: KB @ 5668.00ft (Original Well Elev)
Section (VS) Reference: Slot - C08(0.00N, 0.00E)
Measured Depth Reference: KB @ 5668.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

C08 (111355)

VERTICAL SECTION VIEW



Antero Resources

Robinson

Robinson C Pad

C08 (111355) - Slot C08

C08

Plan: C08 P02

Standard Planning Report - Geographic

13 April, 2011

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C08 (111355) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5668.00ft (Original Well Elev)
Project:	Robinson	MD Reference:	KB @ 5668.00ft (Original Well Elev)
Site:	Robinson C Pad	North Reference:	Grid
Well:	C08 (111355)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C08		
Design:	C08 P02		

Project	Robinson		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		Robinson C Pad			
Site Position:		Northing:	14,365,851.290 usft	Latitude:	39.527207654°N
From:	Map	Easting:	884,005.040 usft	Longitude:	107.682381321°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.71 °

Well	C08 (111355) - Slot C08					
Well Position	+N/-S	0.00 ft	Northing:	14,365,857.509 usft	Latitude:	39.527229596°N
	+E/-W	0.00 ft	Easting:	884,064.717 usft	Longitude:	107.682170569°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,644.00 ft

Wellbore	C08				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/06/21	10.21	65.82	52,309

Design	C08 P02			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	7,775.00	0.00	0.00	268.59

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	4.00	180.00	599.68	-13.96	0.00	1.00	1.00	0.00	180.00	
1,000.00	0.00	0.00	999.35	-27.91	0.00	1.00	-1.00	0.00	180.00	
1,060.00	0.00	0.00	1,059.35	-27.91	0.00	0.00	0.00	0.00	0.00	
2,072.31	15.18	270.60	2,059.85	-26.51	-133.35	1.50	1.50	0.00	270.60	
4,082.13	15.18	270.60	3,999.50	-20.96	-659.75	0.00	0.00	0.00	0.00	
5,094.44	0.00	0.00	5,000.00	-19.56	-793.10	1.50	-1.50	0.00	180.00	
7,869.44	0.00	0.00	7,775.00	-19.56	-793.10	0.00	0.00	0.00	0.00	C08 BH

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C08 (111355) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5668.00ft (Original Well Elev)
Project:	Robinson	MD Reference:	KB @ 5668.00ft (Original Well Elev)
Site:	Robinson C Pad	North Reference:	Grid
Well:	C08 (111355)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C08		
Design:	C08 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	14,365,857.509	884,064.717	39.527229596°N	107.682170569°W
100.00	0.00	0.00	100.00	0.00	0.00	14,365,857.509	884,064.717	39.527229596°N	107.682170569°W
200.00	0.00	0.00	200.00	0.00	0.00	14,365,857.509	884,064.717	39.527229596°N	107.682170569°W
KOP 1°/100 at 200 MD/TVD									
300.00	1.00	180.00	299.99	-0.87	0.00	14,365,856.636	884,064.717	39.527227202°N	107.682170477°W
400.00	2.00	180.00	399.96	-3.49	0.00	14,365,854.018	884,064.717	39.527220021°N	107.682170201°W
500.00	3.00	180.00	499.86	-7.85	0.00	14,365,849.656	884,064.717	39.527208055°N	107.682169740°W
600.00	4.00	180.00	599.68	-13.96	0.00	14,365,843.552	884,064.717	39.527191307°N	107.682169095°W
Drop 1°/100 at 600 MD/TVD									
700.00	3.00	180.00	699.49	-20.06	0.00	14,365,837.447	884,064.717	39.527174559°N	107.682168450°W
800.00	2.00	180.00	799.39	-24.42	0.00	14,365,833.085	884,064.717	39.527162593°N	107.682167989°W
900.00	1.00	180.00	899.36	-27.04	0.00	14,365,830.467	884,064.717	39.527155411°N	107.682167713°W
1,000.00	0.00	0.00	999.35	-27.91	0.00	14,365,829.595	884,064.717	39.527153017°N	107.682167621°W
Surf Csg at 1000 MD/TVD									
1,060.00	0.00	0.00	1,059.35	-27.91	0.00	14,365,829.595	884,064.717	39.527153017°N	107.682167621°W
Build 1.5°/100 at 1060 MD/1059 TVD									
1,100.00	0.60	270.60	1,099.35	-27.91	-0.21	14,365,829.597	884,064.508	39.527153006°N	107.682168363°W
1,200.00	2.10	270.60	1,199.32	-27.89	-2.57	14,365,829.622	884,062.152	39.527152882°N	107.682176711°W
1,300.00	3.60	270.60	1,299.19	-27.83	-7.54	14,365,829.674	884,057.180	39.527152619°N	107.682194329°W
1,400.00	5.10	270.60	1,398.90	-27.75	-15.12	14,365,829.754	884,049.596	39.527152217°N	107.682221205°W
1,500.00	6.60	270.60	1,498.38	-27.65	-25.31	14,365,829.861	884,039.404	39.527151678°N	107.682257320°W
1,600.00	8.10	270.60	1,597.55	-27.51	-38.10	14,365,829.996	884,026.612	39.527151002°N	107.682302651°W
1,700.00	9.60	270.60	1,696.36	-27.35	-53.49	14,365,830.158	884,011.229	39.527150188°N	107.682357164°W
1,800.00	11.10	270.60	1,794.73	-27.16	-71.45	14,365,830.347	883,993.264	39.527149237°N	107.682420824°W
1,900.00	12.60	270.60	1,892.60	-26.94	-91.99	14,365,830.564	883,972.731	39.527148151°N	107.682493587°W
2,000.00	14.10	270.60	1,989.89	-26.70	-115.07	14,365,830.807	883,949.643	39.527146929°N	107.682575403°W
2,072.31	15.18	270.60	2,059.85	-26.51	-133.35	14,365,830.999	883,931.366	39.527145962°N	107.682640172°W
Hold 15° at 2072 MD/2060 TVD									
2,100.00	15.18	270.60	2,086.57	-26.43	-140.60	14,365,831.076	883,924.113	39.527145579°N	107.682665872°W
2,200.00	15.18	270.60	2,183.08	-26.16	-166.80	14,365,831.352	883,897.922	39.527144193°N	107.682758686°W
2,300.00	15.18	270.60	2,279.59	-25.88	-192.99	14,365,831.628	883,871.730	39.527142807°N	107.682851499°W
2,400.00	15.18	270.60	2,376.10	-25.61	-219.18	14,365,831.904	883,845.539	39.527141421°N	107.682944312°W
2,500.00	15.18	270.60	2,472.61	-25.33	-245.37	14,365,832.179	883,819.347	39.527140035°N	107.683037126°W
2,600.00	15.18	270.60	2,569.12	-25.05	-271.56	14,365,832.455	883,793.156	39.527138648°N	107.683129939°W
2,700.00	15.18	270.60	2,665.63	-24.78	-297.75	14,365,832.731	883,766.965	39.527137262°N	107.683222753°W
2,800.00	15.18	270.60	2,762.14	-24.50	-323.94	14,365,833.007	883,740.773	39.527135876°N	107.683315566°W
2,900.00	15.18	270.60	2,858.64	-24.23	-350.14	14,365,833.283	883,714.582	39.527134489°N	107.683408380°W
3,000.00	15.18	270.60	2,955.15	-23.95	-376.33	14,365,833.559	883,688.390	39.527133103°N	107.683501193°W
3,100.00	15.18	270.60	3,051.66	-23.67	-402.52	14,365,833.835	883,662.199	39.527131716°N	107.683594005°W
3,200.00	15.18	270.60	3,148.17	-23.40	-428.71	14,365,834.111	883,636.007	39.527130330°N	107.683686819°W
3,300.00	15.18	270.60	3,244.68	-23.12	-454.90	14,365,834.387	883,609.816	39.527128943°N	107.683779632°W
3,400.00	15.18	270.60	3,341.19	-22.85	-481.09	14,365,834.662	883,583.624	39.527127556°N	107.683872446°W
3,500.00	15.18	270.60	3,437.70	-22.57	-507.29	14,365,834.938	883,557.433	39.527126169°N	107.683965259°W
3,600.00	15.18	270.60	3,534.21	-22.29	-533.48	14,365,835.214	883,531.242	39.527124782°N	107.684058072°W
3,700.00	15.18	270.60	3,630.71	-22.02	-559.67	14,365,835.490	883,505.050	39.527123395°N	107.684150886°W
3,800.00	15.18	270.60	3,727.22	-21.74	-585.86	14,365,835.766	883,478.859	39.527122008°N	107.684243699°W
3,900.00	15.18	270.60	3,823.73	-21.47	-612.05	14,365,836.042	883,452.667	39.527120621°N	107.684336512°W
4,000.00	15.18	270.60	3,920.24	-21.19	-638.24	14,365,836.318	883,426.476	39.527119234°N	107.684429326°W
4,082.13	15.18	270.60	3,999.50	-20.96	-659.75	14,365,836.544	883,404.965	39.527118094°N	107.684505553°W
Drop 1.5°/100 at 4082 MD/4000 TVD									
4,100.00	14.92	270.60	4,016.76	-20.92	-664.39	14,365,836.593	883,400.325	39.527117849°N	107.684521996°W
4,200.00	13.42	270.60	4,113.72	-20.66	-688.87	14,365,836.851	883,375.853	39.527116552°N	107.684608716°W
4,300.00	11.92	270.60	4,211.28	-20.43	-710.79	14,365,837.082	883,353.927	39.527115391°N	107.684686413°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C08 (111355) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5668.00ft (Original Well Elev)
Project:	Robinson	MD Reference:	KB @ 5668.00ft (Original Well Elev)
Site:	Robinson C Pad	North Reference:	Grid
Well:	C08 (111355)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C08		
Design:	C08 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	
4,329.33	11.48	270.60	4,240.00	-20.36	-716.74	14,365,837.145	883,347.981	39.527115076°N	107.684707483°W	
Mesaverde										
4,400.00	10.42	270.60	4,309.38	-20.22	-730.16	14,365,837.286	883,334.562	39.527114365°N	107.684755034°W	
4,500.00	8.92	270.60	4,407.96	-20.05	-746.95	14,365,837.463	883,317.772	39.527113475°N	107.684814532°W	
4,600.00	7.42	270.60	4,506.94	-19.90	-761.15	14,365,837.612	883,303.569	39.527112723°N	107.684864865°W	
4,700.00	5.92	270.60	4,606.26	-19.77	-772.76	14,365,837.735	883,291.961	39.527112108°N	107.684906000°W	
4,800.00	4.42	270.60	4,705.86	-19.68	-781.76	14,365,837.830	883,282.956	39.527111631°N	107.684937908°W	
4,900.00	2.92	270.60	4,805.65	-19.61	-788.16	14,365,837.897	883,276.562	39.527111292°N	107.684960568°W	
5,000.00	1.42	270.60	4,905.57	-19.57	-791.94	14,365,837.937	883,272.782	39.527111092°N	107.684973963°W	
5,094.44	0.00	0.00	5,000.00	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
Vertical at 5094 MD/5000 TVD - Price Coal										
5,100.00	0.00	0.00	5,005.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,200.00	0.00	0.00	5,105.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,300.00	0.00	0.00	5,205.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,400.00	0.00	0.00	5,305.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,500.00	0.00	0.00	5,405.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,600.00	0.00	0.00	5,505.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,700.00	0.00	0.00	5,605.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,800.00	0.00	0.00	5,705.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,900.00	0.00	0.00	5,805.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
5,994.44	0.00	0.00	5,900.00	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
Top Gas										
6,000.00	0.00	0.00	5,905.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,100.00	0.00	0.00	6,005.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,200.00	0.00	0.00	6,105.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,300.00	0.00	0.00	6,205.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,400.00	0.00	0.00	6,305.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,500.00	0.00	0.00	6,405.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,600.00	0.00	0.00	6,505.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,700.00	0.00	0.00	6,605.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,800.00	0.00	0.00	6,705.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
6,819.44	0.00	0.00	6,725.00	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
Cameo										
6,900.00	0.00	0.00	6,805.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,000.00	0.00	0.00	6,905.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,100.00	0.00	0.00	7,005.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,200.00	0.00	0.00	7,105.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,300.00	0.00	0.00	7,205.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,400.00	0.00	0.00	7,305.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,500.00	0.00	0.00	7,405.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,600.00	0.00	0.00	7,505.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,700.00	0.00	0.00	7,605.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,719.44	0.00	0.00	7,625.00	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
Rollins										
7,800.00	0.00	0.00	7,705.56	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	
7,869.44	0.00	0.00	7,775.00	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C08 (111355) - Slot C08
Company:	Antero Resources	TVD Reference:	KB @ 5668.00ft (Original Well Elev)
Project:	Robinson	MD Reference:	KB @ 5668.00ft (Original Well Elev)
Site:	Robinson C Pad	North Reference:	Grid
Well:	C08 (111355)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C08		
Design:	C08 P02		

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									
C08 BH	0.00	0.00	7,775.00	-19.56	-793.10	14,365,837.949	883,271.614	39.527111030°N	107.684978100°W
- plan hits target center									
- Circle (radius 25.00)									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(in)	(in)
1,000.00	999.35	Surf Csg at 1000 MD/TVD		5.50	6.00

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
4,329.33	4,240.00	Mesaverde			
5,094.44	5,000.00	Price Coal			
5,994.44	5,900.00	Top Gas			
6,819.44	6,725.00	Cameo			
7,719.44	7,625.00	Rollins			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
(ft)	(ft)	(ft)	(ft)		
200.00	200.00	0.00	0.00	KOP 1°/100 at 200 MD/TVD	
600.00	599.68	-13.96	0.00	Drop 1°/100 at 600 MD/TVD	
1,060.00	1,059.35	-27.91	0.00	Build 1.5°/100 at 1060 MD/1059 TVD	
2,072.31	2,059.85	-27.91	0.00	Hold 15° at 2072 MD/2060 TVD	
4,082.13	3,999.50	-26.51	-133.35	Drop 1.5°/100 at 4082 MD/4000 TVD	
5,094.44	5,000.00	-20.96	-659.75	Vertical at 5094 MD/5000 TVD	
7,869.44	7,775.00	-19.56	-793.10	TD at 7869 MD/7775 TVD	