

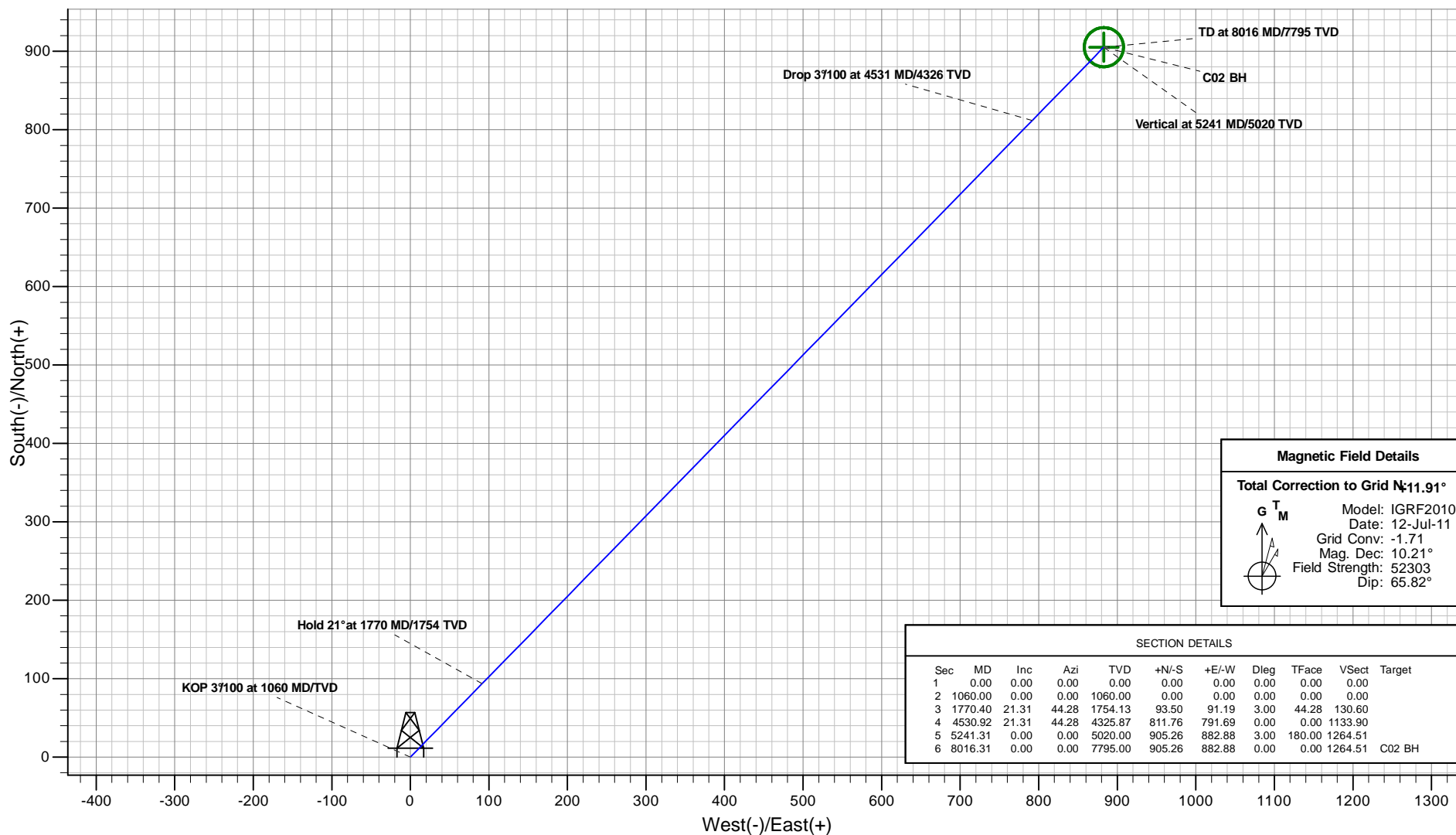


PLAN VIEW

Antero Resources

C02 (111368)

Project: Robinson
Site: Robinson C Pad
Well: C02 (111368)
Wellbore: C02
Design: C02_P01



Magnetic Field Details

Total Correction to Grid N: 11.91°

Model: IGRF2010
Date: 12-Jul-11
Grid Conv: -1.71
Mag. Dec: 10.21°
Field Strength: 52303
Dip: 65.82°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1060.00	0.00	0.00	1060.00	0.00	0.00	0.00	0.00	0.00	
3	1770.40	21.31	44.28	1754.13	93.50	91.19	3.00	44.28	130.60	
4	4530.92	21.31	44.28	4325.87	811.76	791.69	0.00	0.00	1133.90	
5	5241.31	0.00	0.00	5020.00	905.26	882.88	3.00	180.00	1264.51	
6	8016.31	0.00	0.00	7795.00	905.26	882.88	0.00	0.00	1264.51	C02 BH

Plan: C02_P01
Created By: ARK Directional Services
Date: 10:22, 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 C02 (111368) - Slot C02, Grid North
Vertical (TVD) Reference: KB @ 5668.00ft (Original Well Elev)
Section (VS) Reference: Slot - C02(0.00N, 0.00E)
Measured Depth Reference: KB @ 5668.00ft (Original Well Elev)
Calculation Method: Minimum Curvature

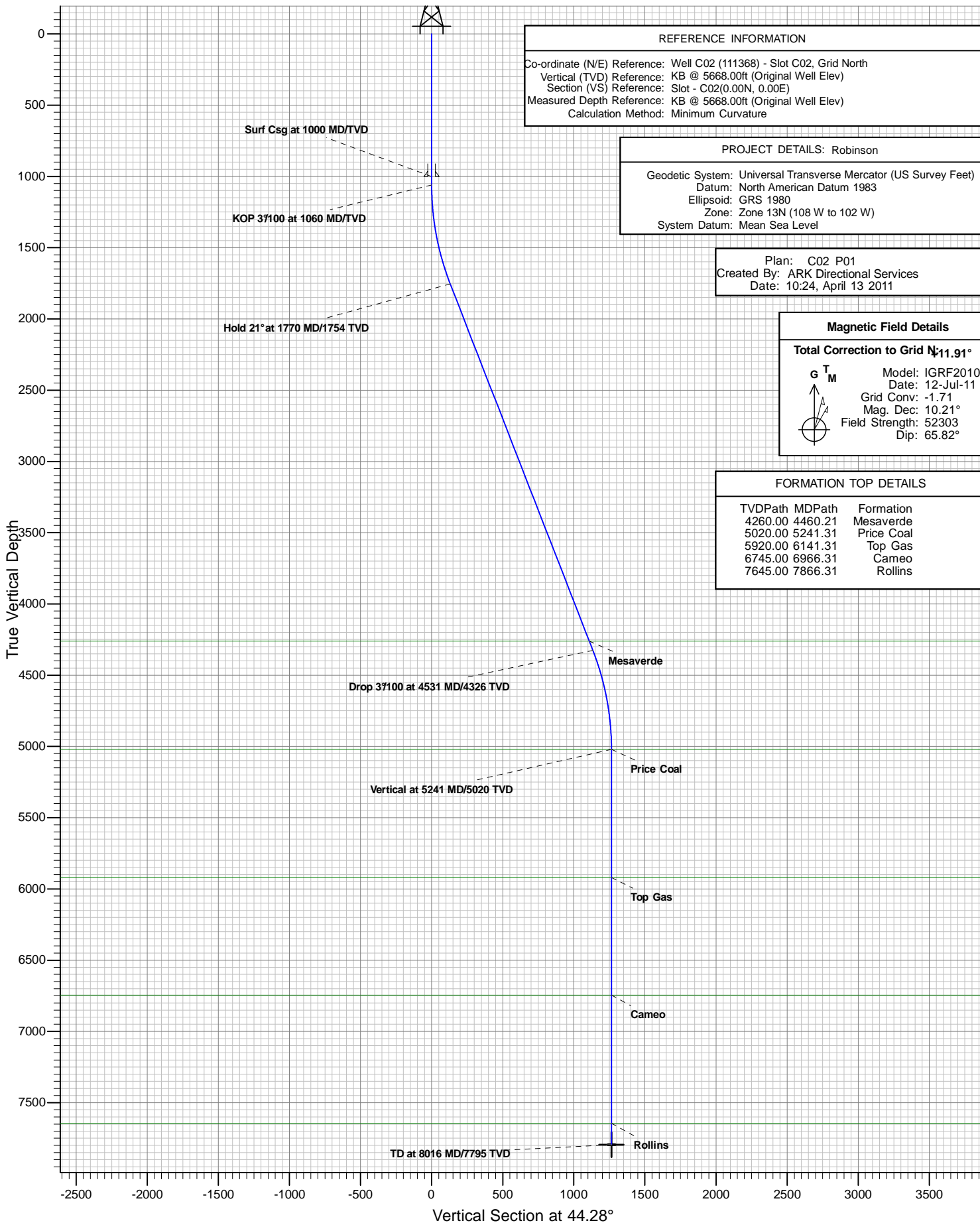


Antero Resources



C02 (111368)

VERTICAL SECTION VIEW



Antero Resources

Robinson

Robinson C Pad

C02 (111368) - Slot C02

C02

Plan: C02 P01

Standard Planning Report - Geographic

13 April, 2011

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C02 (111368) - Slot C02
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:	C02 (111368)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C02		
Design:	C02 P01		

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
From:	Map	Easting:	884,005.040 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39.527207654°N
		Longitude:	107.682381321°W
		Grid Convergence:	-1.71 °

Well	C02 (111368) - Slot C02		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.527253367°N
		Longitude:	107.681942255°W
		Ground Level:	5,644.00 ft

Wellbore	C02				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/07/12	10.21	65.82	52,303

Design	C02 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	44.28	

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	
1,060.00	0.00	0.00	1,060.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,770.40	21.31	44.28	1,754.13	93.50	91.19	3.00	3.00	0.00	44.28	
4,530.92	21.31	44.28	4,325.87	811.76	791.69	0.00	0.00	0.00	0.00	
5,241.31	0.00	0.00	5,020.00	905.26	882.88	3.00	-3.00	0.00	180.00	
8,016.31	0.00	0.00	7,795.00	905.26	882.88	0.00	0.00	0.00	0.00	C02 BH

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C02 (111368) - Slot C02
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:	C02 (111368)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C02		
Design:	C02 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	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
100.00	0.00	0.00	100.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
200.00	0.00	0.00	200.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
300.00	0.00	0.00	300.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
400.00	0.00	0.00	400.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
500.00	0.00	0.00	500.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
600.00	0.00	0.00	600.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
700.00	0.00	0.00	700.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
800.00	0.00	0.00	800.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
900.00	0.00	0.00	900.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
Surf Csg at 1000 MD/TVD									
1,060.00	0.00	0.00	1,060.00	0.00	0.00	14,365,864.246	884,129.367	39.527253367°N	107.681942255°W
KOP 3°/100 at 1060 MD/TVD									
1,100.00	1.20	44.28	1,100.00	0.30	0.29	14,365,864.546	884,129.659	39.527254213°N	107.681941251°W
1,200.00	4.20	44.28	1,199.87	3.67	3.58	14,365,867.917	884,132.948	39.527263733°N	107.681929957°W
1,300.00	7.20	44.28	1,299.37	10.78	10.51	14,365,875.027	884,139.882	39.527283804°N	107.681906145°W
1,400.00	10.20	44.28	1,398.21	21.61	21.07	14,365,885.855	884,150.442	39.527314372°N	107.681869879°W
1,500.00	13.20	44.28	1,496.12	36.12	35.23	14,365,900.370	884,164.599	39.527355353°N	107.681821261°W
1,600.00	16.20	44.28	1,592.83	54.29	52.95	14,365,918.535	884,182.314	39.527406634°N	107.681760421°W
1,700.00	19.20	44.28	1,688.09	76.05	74.17	14,365,940.298	884,203.539	39.527468075°N	107.681687528°W
1,770.40	21.31	44.28	1,754.13	93.50	91.19	14,365,957.746	884,220.555	39.527517332°N	107.681629090°W
Hold 21° at 1770 MD/1754 TVD									
1,800.00	21.31	44.28	1,781.71	101.20	98.70	14,365,965.448	884,228.067	39.527539077°N	107.681603293°W
1,900.00	21.31	44.28	1,874.87	127.22	124.08	14,365,991.467	884,253.443	39.527612533°N	107.681516145°W
2,000.00	21.31	44.28	1,968.03	153.24	149.45	14,366,017.486	884,278.818	39.527685989°N	107.681428997°W
2,100.00	21.31	44.28	2,061.19	179.26	174.83	14,366,043.505	884,304.194	39.527759445°N	107.681341849°W
2,200.00	21.31	44.28	2,154.35	205.28	200.20	14,366,069.524	884,329.570	39.527832900°N	107.681254701°W
2,300.00	21.31	44.28	2,247.52	231.30	225.58	14,366,095.543	884,354.946	39.527906356°N	107.681167553°W
2,400.00	21.31	44.28	2,340.68	257.32	250.95	14,366,121.562	884,380.321	39.527979812°N	107.681080404°W
2,500.00	21.31	44.28	2,433.84	283.34	276.33	14,366,147.581	884,405.697	39.528053267°N	107.680993255°W
2,600.00	21.31	44.28	2,527.00	309.36	301.71	14,366,173.600	884,431.073	39.528126723°N	107.680906106°W
2,700.00	21.31	44.28	2,620.16	335.37	327.08	14,366,199.619	884,456.449	39.528200178°N	107.680818957°W
2,800.00	21.31	44.28	2,713.32	361.39	352.46	14,366,225.638	884,481.824	39.528273634°N	107.680731808°W
2,900.00	21.31	44.28	2,806.48	387.41	377.83	14,366,251.658	884,507.200	39.528347089°N	107.680644659°W
3,000.00	21.31	44.28	2,899.65	413.43	403.21	14,366,277.677	884,532.576	39.528420545°N	107.680557509°W
3,100.00	21.31	44.28	2,992.81	439.45	428.59	14,366,303.696	884,557.951	39.528494000°N	107.680470359°W
3,200.00	21.31	44.28	3,085.97	465.47	453.96	14,366,329.715	884,583.327	39.528567455°N	107.680383209°W
3,300.00	21.31	44.28	3,179.13	491.49	479.34	14,366,355.734	884,608.703	39.528640910°N	107.680296059°W
3,400.00	21.31	44.28	3,272.29	517.51	504.71	14,366,381.753	884,634.079	39.528714365°N	107.680208909°W
3,500.00	21.31	44.28	3,365.45	543.53	530.09	14,366,407.772	884,659.454	39.528787820°N	107.680121758°W
3,600.00	21.31	44.28	3,458.62	569.55	555.46	14,366,433.791	884,684.830	39.528861275°N	107.680034607°W
3,700.00	21.31	44.28	3,551.78	595.57	580.84	14,366,459.810	884,710.206	39.528934730°N	107.679947456°W
3,800.00	21.31	44.28	3,644.94	621.58	606.22	14,366,485.829	884,735.582	39.529008185°N	107.679860305°W
3,900.00	21.31	44.28	3,738.10	647.60	631.59	14,366,511.848	884,760.957	39.529081640°N	107.679773154°W
4,000.00	21.31	44.28	3,831.26	673.62	656.97	14,366,537.867	884,786.333	39.529155094°N	107.679686003°W
4,100.00	21.31	44.28	3,924.42	699.64	682.34	14,366,563.886	884,811.709	39.529228549°N	107.679598851°W
4,200.00	21.31	44.28	4,017.58	725.66	707.72	14,366,589.905	884,837.085	39.529302004°N	107.679511699°W
4,300.00	21.31	44.28	4,110.75	751.68	733.09	14,366,615.924	884,862.460	39.529375458°N	107.679424547°W
4,400.00	21.31	44.28	4,203.91	777.70	758.47	14,366,641.943	884,887.836	39.529448913°N	107.679337395°W
4,460.21	21.31	44.28	4,260.00	793.37	773.75	14,366,657.609	884,903.115	39.529493139°N	107.679284921°W
Mesaverde									
4,500.00	21.31	44.28	4,297.07	803.72	783.85	14,366,667.963	884,913.212	39.529522367°N	107.679250242°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C02 (111368) - Slot C02
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:	C02 (111368)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C02		
Design:	C02 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	
4,530.92	21.31	44.28	4,325.87	811.76	791.69	14,366,676.006	884,921.057	39.529545076°N	107.679223299°W	
Drop 3°/100 at 4531 MD/4326 TVD										
4,600.00	19.24	44.28	4,390.67	828.90	808.41	14,366,693.144	884,937.771	39.529593458°N	107.679165894°W	
4,700.00	16.24	44.28	4,485.91	850.71	829.68	14,366,714.955	884,959.042	39.529655030°N	107.679092839°W	
4,800.00	13.24	44.28	4,582.60	868.92	847.44	14,366,733.167	884,976.804	39.529706444°N	107.679031837°W	
4,900.00	10.24	44.28	4,680.50	883.49	861.64	14,366,747.731	884,991.008	39.529747560°N	107.678983053°W	
5,000.00	7.24	44.28	4,779.33	894.36	872.25	14,366,758.607	885,001.615	39.529778265°N	107.678946622°W	
5,100.00	4.24	44.28	4,878.82	901.52	879.23	14,366,765.765	885,008.596	39.529798474°N	107.678922644°W	
5,200.00	1.24	44.28	4,978.69	904.94	882.57	14,366,769.187	885,011.933	39.529808132°N	107.678911185°W	
5,241.31	0.00	0.00	5,020.00	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
Vertical at 5241 MD/5020 TVD - Price Coal										
5,300.00	0.00	0.00	5,078.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
5,400.00	0.00	0.00	5,178.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
5,500.00	0.00	0.00	5,278.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
5,600.00	0.00	0.00	5,378.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
5,700.00	0.00	0.00	5,478.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
5,800.00	0.00	0.00	5,578.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
5,900.00	0.00	0.00	5,678.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,000.00	0.00	0.00	5,778.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,100.00	0.00	0.00	5,878.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,141.31	0.00	0.00	5,920.00	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
Top Gas										
6,200.00	0.00	0.00	5,978.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,300.00	0.00	0.00	6,078.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,400.00	0.00	0.00	6,178.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,500.00	0.00	0.00	6,278.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,600.00	0.00	0.00	6,378.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,700.00	0.00	0.00	6,478.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,800.00	0.00	0.00	6,578.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,900.00	0.00	0.00	6,678.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
6,966.31	0.00	0.00	6,745.00	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
Cameo										
7,000.00	0.00	0.00	6,778.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,100.00	0.00	0.00	6,878.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,200.00	0.00	0.00	6,978.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,300.00	0.00	0.00	7,078.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,400.00	0.00	0.00	7,178.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,500.00	0.00	0.00	7,278.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,600.00	0.00	0.00	7,378.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,700.00	0.00	0.00	7,478.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,800.00	0.00	0.00	7,578.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
7,866.31	0.00	0.00	7,645.00	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
Rollins										
7,900.00	0.00	0.00	7,678.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
8,000.00	0.00	0.00	7,778.69	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
8,016.31	0.00	0.00	7,795.00	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°W	
TD at 8016 MD/7795 TVD										

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well C02 (111368) - Slot C02
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:	C02 (111368)	Survey Calculation Method:	Minimum Curvature
Wellbore:	C02		
Design:	C02 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									
C02 BH	0.00	360.00	7,795.00	905.26	882.88	14,366,769.506	885,012.245	39.529809035°N	107.678910113°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	1,000.00	Surf Csg at 1000 MD/TVD		5.50	6.00

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
4,460.21	4,260.00	Mesaverde				
5,241.31	5,020.00	Price Coal				
6,141.31	5,920.00	Top Gas				
6,966.31	6,745.00	Cameo				
7,866.31	7,645.00	Rollins				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)		
1,060.00	1,060.00	0.00	0.00	KOP 3°/100 at 1060 MD/TVD	
1,770.40	1,754.13	93.50	91.19	Hold 21° at 1770 MD/1754 TVD	
4,530.92	4,325.87	811.76	791.69	Drop 3°/100 at 4531 MD/4326 TVD	
5,241.31	5,020.00	905.26	882.88	Vertical at 5241 MD/5020 TVD	
8,016.31	7,795.00	905.26	882.88	TD at 8016 MD/7795 TVD	