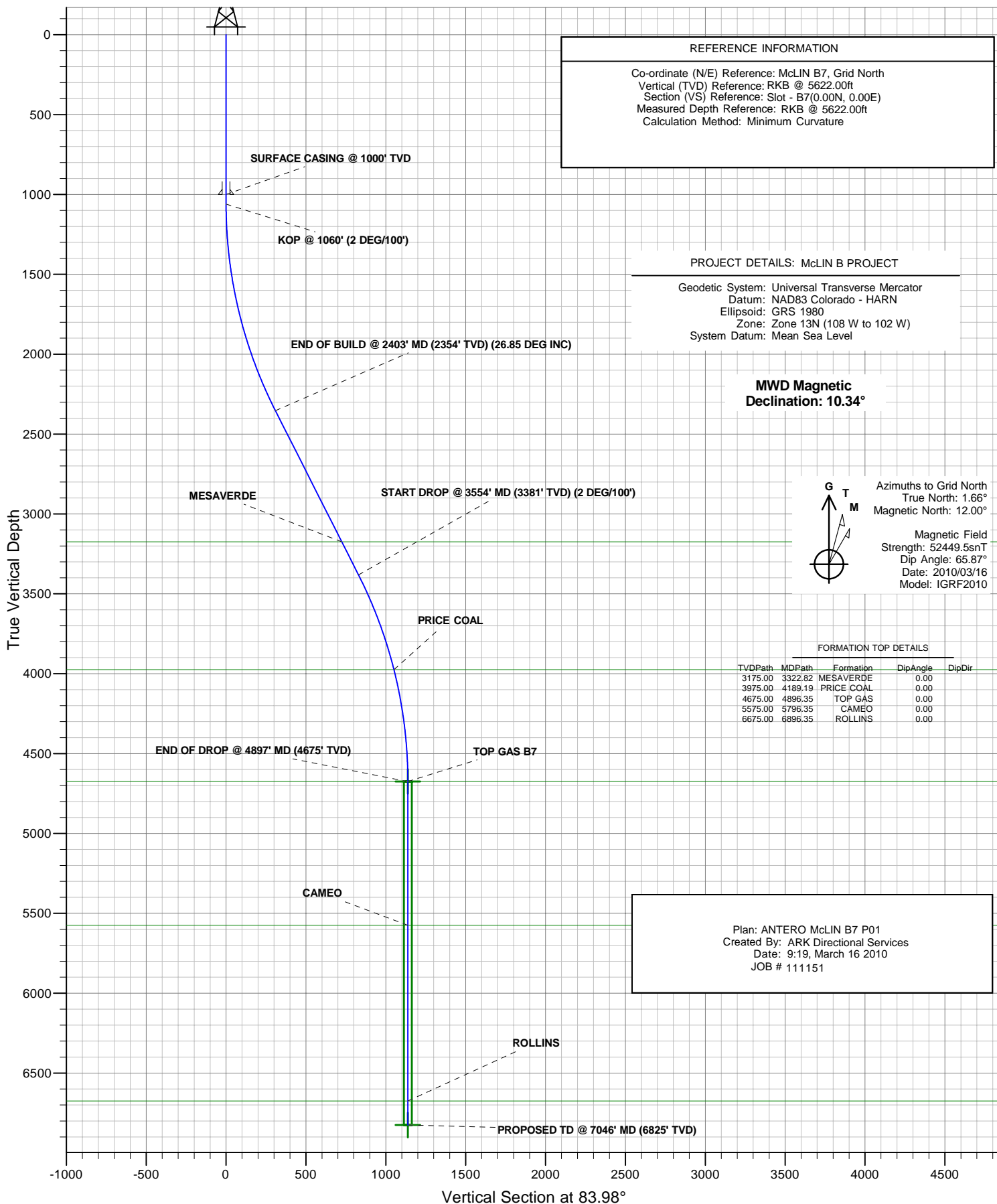




ANTERO RESOURCES

ANTERO McLIN B7

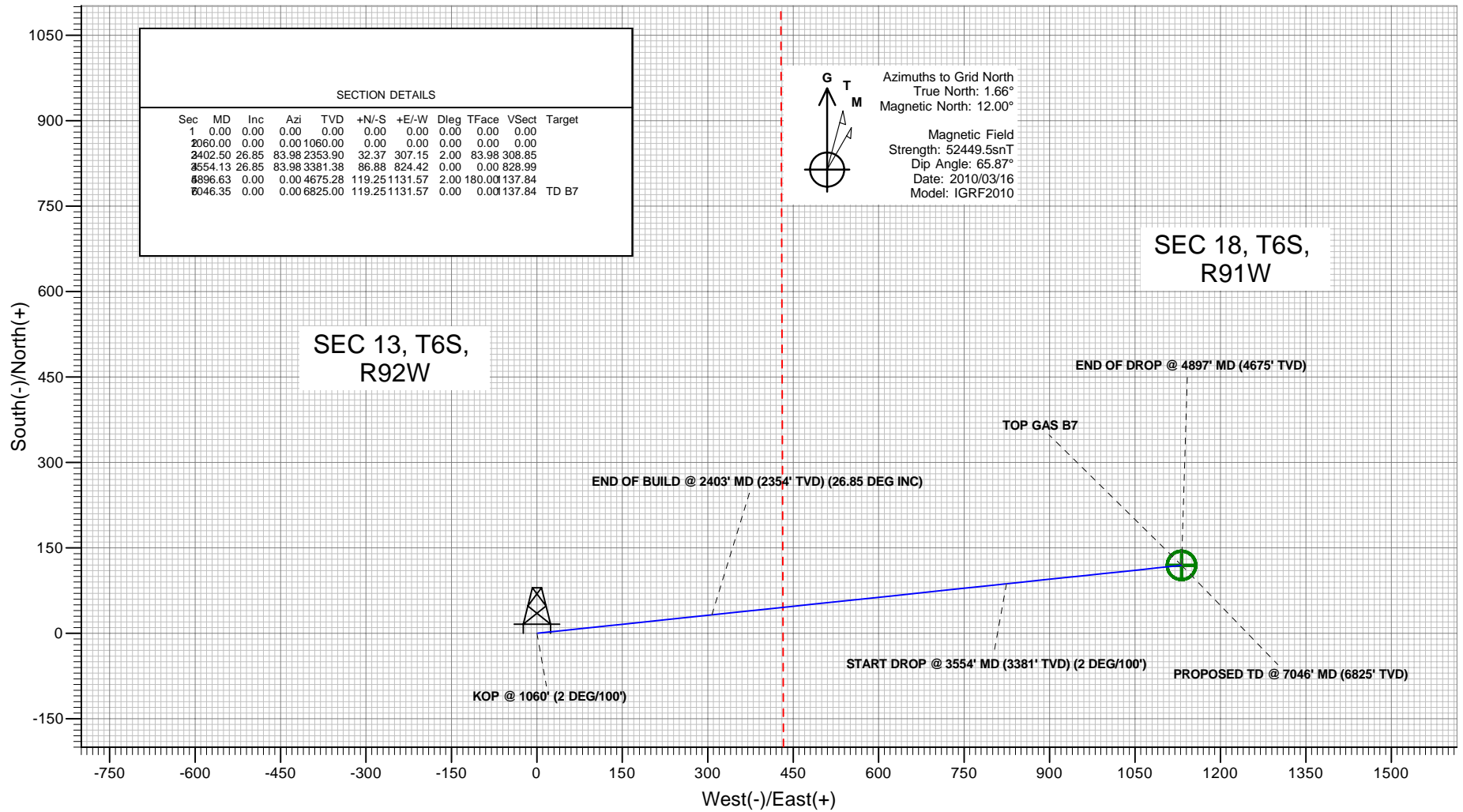




PLAN VIEW

ANTERO RESOURCES

Project: McLIN B PROJECT
Site: FRONTIER 12
Well: McLIN B7 (111151)
Wellbore: ANTERO McLIN B7
Design: ANTERO McLIN B7 P01
JOB # 111151



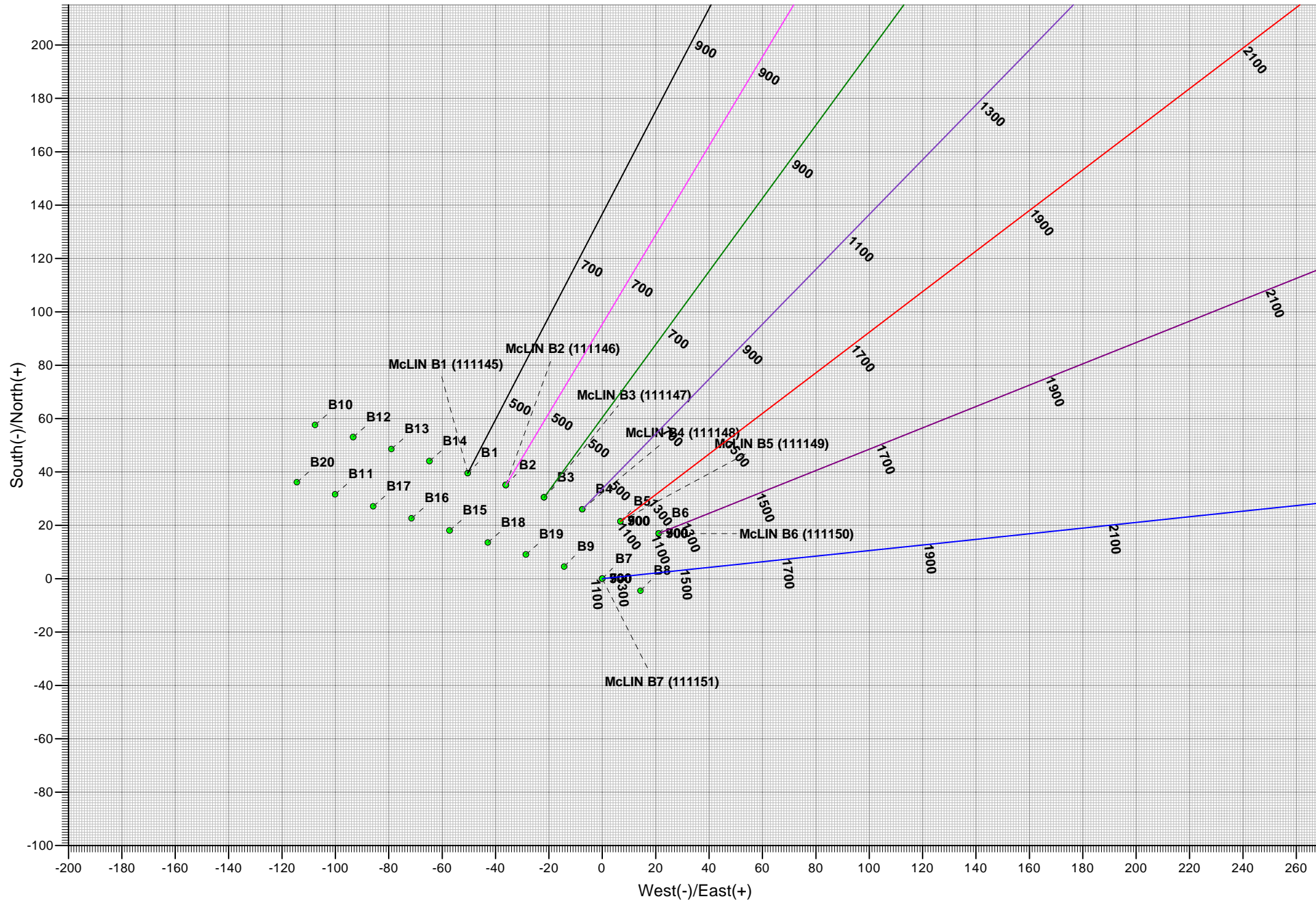
Plan: ANTERO McLIN B7 P01
Created By: ARK Directional Services
Date: 9:22, March 16 2010

PROJECT DETAILS: McLIN B PROJECT

Geodetic System: Universal Transverse Mercator
Datum: NAD83 Colorado - HARN
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: McLIN B7, Grid North
Vertical (TVD) Reference: RKB @ 5622.00ft
Section (VS) Reference: Slot - B7(0.00N, 0.00E)
Measured Depth Reference: RKB @ 5622.00ft
Calculation Method: Minimum Curvature



ANTERO RESOURCES

**McLIN B PROJECT
FRONTIER 12**

Plan: ANTERO McLIN B7 P01

Standard Planning Report - Geographic

16 March, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLIN B7 (111151) - Slot B7
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5622.00ft
Project:	McLIN B PROJECT	MD Reference:	RKB @ 5622.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	McLIN B7 (111151)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B7		
Design:	ANTERO McLIN B7 P01		

Project	McLIN B PROJECT		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		FRONTIER 12			
Site Position:		Northing:	14,366,636.75 usft	Latitude:	39° 31' 51.798 N
From:	Lat/Long	Easting:	904,982.97 usft	Longitude:	107° 36' 29.317 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.66 °

Well	McLIN B7 (111151) - Slot B7					
Well Position	+N/-S	0.00 ft	Northing:	14,366,597.22 usft	Latitude:	39° 31' 51.422 N
	+E/-W	0.00 ft	Easting:	905,033.40 usft	Longitude:	107° 36' 28.659 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,598.00 ft

Wellbore	ANTERO McLIN B7				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2010/03/16	10.34	65.87	52,450

Design	ANTERO McLIN B7 P01				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	83.98	

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	
2,402.50	26.85	83.98	2,353.90	32.37	307.15	2.00	2.00	0.00	83.98	
3,554.13	26.85	83.98	3,381.38	86.88	824.42	0.00	0.00	0.00	0.00	
4,896.63	0.00	0.00	4,675.28	119.25	1,131.57	2.00	-2.00	0.00	180.00	
7,046.36	0.00	0.00	6,825.00	119.25	1,131.57	0.00	0.00	0.00	0.00	TD B7

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLIN B7 (111151) - Slot B7
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5622.00ft
Project:	McLIN B PROJECT	MD Reference:	RKB @ 5622.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	McLIN B7 (111151)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B7		
Design:	ANTERO McLIN B7 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	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
100.00	0.00	0.00	100.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
200.00	0.00	0.00	200.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
300.00	0.00	0.00	300.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
400.00	0.00	0.00	400.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
500.00	0.00	0.00	500.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
600.00	0.00	0.00	600.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
700.00	0.00	0.00	700.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
800.00	0.00	0.00	800.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
900.00	0.00	0.00	900.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
SURFACE CASING @ 1000' TVD									
1,060.00	0.00	0.00	1,060.00	0.00	0.00	14,366,597.22	905,033.40	39° 31' 51.422 N	107° 36' 28.659 W
KOP @ 1060' (2 DEG/100')									
1,100.00	0.80	83.98	1,100.00	0.03	0.28	14,366,597.25	905,033.68	39° 31' 51.422 N	107° 36' 28.655 W
1,200.00	2.80	83.98	1,199.94	0.36	3.40	14,366,597.58	905,036.80	39° 31' 51.426 N	107° 36' 28.616 W
1,300.00	4.80	83.98	1,299.72	1.05	9.99	14,366,598.27	905,043.39	39° 31' 51.435 N	107° 36' 28.532 W
1,400.00	6.80	83.98	1,399.20	2.11	20.04	14,366,599.33	905,053.44	39° 31' 51.448 N	107° 36' 28.404 W
1,500.00	8.80	83.98	1,498.27	3.53	33.54	14,366,600.76	905,066.94	39° 31' 51.466 N	107° 36' 28.233 W
1,600.00	10.80	83.98	1,596.81	5.32	50.46	14,366,602.54	905,083.86	39° 31' 51.489 N	107° 36' 28.017 W
1,700.00	12.80	83.98	1,694.69	7.46	70.80	14,366,604.68	905,104.20	39° 31' 51.516 N	107° 36' 27.759 W
1,800.00	14.80	83.98	1,791.80	9.96	94.52	14,366,607.18	905,127.92	39° 31' 51.547 N	107° 36' 27.457 W
1,900.00	16.80	83.98	1,888.02	12.81	121.60	14,366,610.04	905,155.00	39° 31' 51.583 N	107° 36' 27.113 W
2,000.00	18.80	83.98	1,983.22	16.02	152.00	14,366,613.24	905,185.40	39° 31' 51.624 N	107° 36' 26.726 W
2,100.00	20.80	83.98	2,077.31	19.57	185.68	14,366,616.79	905,219.08	39° 31' 51.668 N	107° 36' 26.298 W
2,200.00	22.80	83.98	2,170.15	23.46	222.61	14,366,620.68	905,256.01	39° 31' 51.717 N	107° 36' 25.828 W
2,300.00	24.80	83.98	2,261.64	27.69	262.74	14,366,624.91	905,296.14	39° 31' 51.770 N	107° 36' 25.318 W
2,402.50	26.85	83.98	2,353.90	32.37	307.15	14,366,629.59	905,340.55	39° 31' 51.829 N	107° 36' 24.753 W
END OF BUILD @ 2403' MD (2354' TVD) (26.85 DEG INC)									
2,500.00	26.85	83.98	2,440.89	36.98	350.94	14,366,634.21	905,384.34	39° 31' 51.888 N	107° 36' 24.197 W
2,600.00	26.85	83.98	2,530.11	41.72	395.86	14,366,638.94	905,429.26	39° 31' 51.947 N	107° 36' 23.625 W
2,700.00	26.85	83.98	2,619.33	46.45	440.77	14,366,643.67	905,474.17	39° 31' 52.007 N	107° 36' 23.054 W
2,800.00	26.85	83.98	2,708.55	51.19	485.69	14,366,648.41	905,519.09	39° 31' 52.066 N	107° 36' 22.483 W
2,900.00	26.85	83.98	2,797.77	55.92	530.61	14,366,653.14	905,564.01	39° 31' 52.126 N	107° 36' 21.912 W
3,000.00	26.85	83.98	2,886.98	60.65	575.52	14,366,657.87	905,608.92	39° 31' 52.186 N	107° 36' 21.341 W
3,100.00	26.85	83.98	2,976.20	65.39	620.44	14,366,662.61	905,653.84	39° 31' 52.245 N	107° 36' 20.770 W
3,200.00	26.85	83.98	3,065.42	70.12	665.36	14,366,667.34	905,698.76	39° 31' 52.305 N	107° 36' 20.199 W
3,300.00	26.85	83.98	3,154.64	74.85	710.28	14,366,672.08	905,743.67	39° 31' 52.364 N	107° 36' 19.627 W
3,322.82	26.85	83.98	3,175.00	75.93	720.52	14,366,673.16	905,753.92	39° 31' 52.378 N	107° 36' 19.497 W
MESAVERDE									
3,400.00	26.85	83.98	3,243.86	79.59	755.19	14,366,676.81	905,788.59	39° 31' 52.424 N	107° 36' 19.056 W
3,500.00	26.85	83.98	3,333.08	84.32	800.11	14,366,681.54	905,833.51	39° 31' 52.484 N	107° 36' 18.485 W
3,554.13	26.85	83.98	3,381.38	86.88	824.42	14,366,684.10	905,857.82	39° 31' 52.516 N	107° 36' 18.176 W
START DROP @ 3554' MD (3381' TVD) (2 DEG/100')									
3,600.00	25.93	83.98	3,422.46	89.02	844.70	14,366,686.24	905,878.10	39° 31' 52.543 N	107° 36' 17.918 W
3,700.00	23.93	83.98	3,513.14	93.44	886.62	14,366,690.66	905,920.02	39° 31' 52.598 N	107° 36' 17.385 W
3,800.00	21.93	83.98	3,605.23	97.52	925.37	14,366,694.74	905,958.77	39° 31' 52.650 N	107° 36' 16.892 W
3,900.00	19.93	83.98	3,698.63	101.27	960.90	14,366,698.49	905,994.30	39° 31' 52.697 N	107° 36' 16.441 W
4,000.00	17.93	83.98	3,793.21	104.67	993.16	14,366,701.89	906,026.56	39° 31' 52.740 N	107° 36' 16.030 W
4,100.00	15.93	83.98	3,888.87	107.72	1,022.12	14,366,704.94	906,055.52	39° 31' 52.778 N	107° 36' 15.662 W
4,189.19	14.15	83.98	3,975.00	110.14	1,045.14	14,366,707.37	906,078.54	39° 31' 52.809 N	107° 36' 15.369 W
PRICE COAL									
4,200.00	13.93	83.98	3,985.49	110.42	1,047.75	14,366,707.64	906,081.15	39° 31' 52.812 N	107° 36' 15.336 W
4,300.00	11.93	83.98	4,082.95	112.77	1,070.01	14,366,709.99	906,103.40	39° 31' 52.842 N	107° 36' 15.053 W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLIN B7 (111151) - Slot B7
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5622.00ft
Project:	McLIN B PROJECT	MD Reference:	RKB @ 5622.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	McLIN B7 (111151)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B7		
Design:	ANTERO McLIN B7 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	9.93	83.98	4,181.13	114.75	1,088.87	14,366,711.97	906,122.26	39° 31' 52.867 N	107° 36' 14.813 W
4,500.00	7.93	83.98	4,279.91	116.38	1,104.31	14,366,713.60	906,137.70	39° 31' 52.887 N	107° 36' 14.617 W
4,600.00	5.93	83.98	4,379.17	117.65	1,116.31	14,366,714.87	906,149.71	39° 31' 52.903 N	107° 36' 14.464 W
4,700.00	3.93	83.98	4,478.80	118.55	1,124.86	14,366,715.77	906,158.26	39° 31' 52.915 N	107° 36' 14.356 W
4,800.00	1.93	83.98	4,578.66	119.08	1,129.95	14,366,716.30	906,163.35	39° 31' 52.921 N	107° 36' 14.291 W
4,896.36	0.01	83.98	4,675.00	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
TOP GAS - TOP GAS B7									
4,896.63	0.00	0.00	4,675.28	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
END OF DROP @ 4897' MD (4675' TVD)									
4,900.00	0.00	0.00	4,678.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,000.00	0.00	0.00	4,778.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,100.00	0.00	0.00	4,878.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,200.00	0.00	0.00	4,978.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,300.00	0.00	0.00	5,078.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,400.00	0.00	0.00	5,178.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,500.00	0.00	0.00	5,278.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,600.00	0.00	0.00	5,378.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,700.00	0.00	0.00	5,478.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,796.36	0.00	0.00	5,575.00	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
CAMEO									
5,800.00	0.00	0.00	5,578.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
5,900.00	0.00	0.00	5,678.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,000.00	0.00	0.00	5,778.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,100.00	0.00	0.00	5,878.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,200.00	0.00	0.00	5,978.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,300.00	0.00	0.00	6,078.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,400.00	0.00	0.00	6,178.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,500.00	0.00	0.00	6,278.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,600.00	0.00	0.00	6,378.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,700.00	0.00	0.00	6,478.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,800.00	0.00	0.00	6,578.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
6,896.36	0.00	0.00	6,675.00	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
ROLLINS									
6,900.00	0.00	0.00	6,678.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
7,000.00	0.00	0.00	6,778.65	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
7,046.32	0.00	0.00	6,824.97	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
PROPOSED TD @ 7046' MD (6825' TVD)									
7,046.36	0.00	0.00	6,825.00	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
TD B7									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
TOP GAS B7	0.00	360.00	4,675.00	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
- plan hits target center									
- Circle (radius 25.00)									
TD B7	0.00	360.00	6,825.00	119.25	1,131.57	14,366,716.47	906,164.97	39° 31' 52.923 N	107° 36' 14.270 W
- plan hits target center									
- Circle (radius 25.00)									

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLIN B7 (111151) - Slot B7
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5622.00ft
Project:	McLIN B PROJECT	MD Reference:	RKB @ 5622.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	McLIN B7 (111151)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO McLIN B7		
Design:	ANTERO McLIN B7 P01		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	1,000.00	SURFACE CASING @ 1000' TVD	9.62	12.25	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,322.82	3,175.00	MESAVERDE		0.00	
4,189.19	3,975.00	PRICE COAL		0.00	
4,896.36	4,675.00	TOP GAS		0.00	
5,796.36	5,575.00	CAMEO		0.00	
6,896.36	6,675.00	ROLLINS		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,060.00	1,060.00	0.00	0.00	KOP @ 1060' (2 DEG/100')	
2,402.50	2,353.90	32.37	307.15	END OF BUILD @ 2403' MD (2354' TVD) (26.85 DEG INC)	
3,554.13	3,381.38	86.88	824.42	START DROP @ 3554' MD (3381' TVD) (2 DEG/100')	
4,896.63	4,675.28	119.25	1,131.57	END OF DROP @ 4897' MD (4675' TVD)	
7,046.32	6,824.97	119.25	1,131.57	PROPOSED TD @ 7046' MD (6825' TVD)	