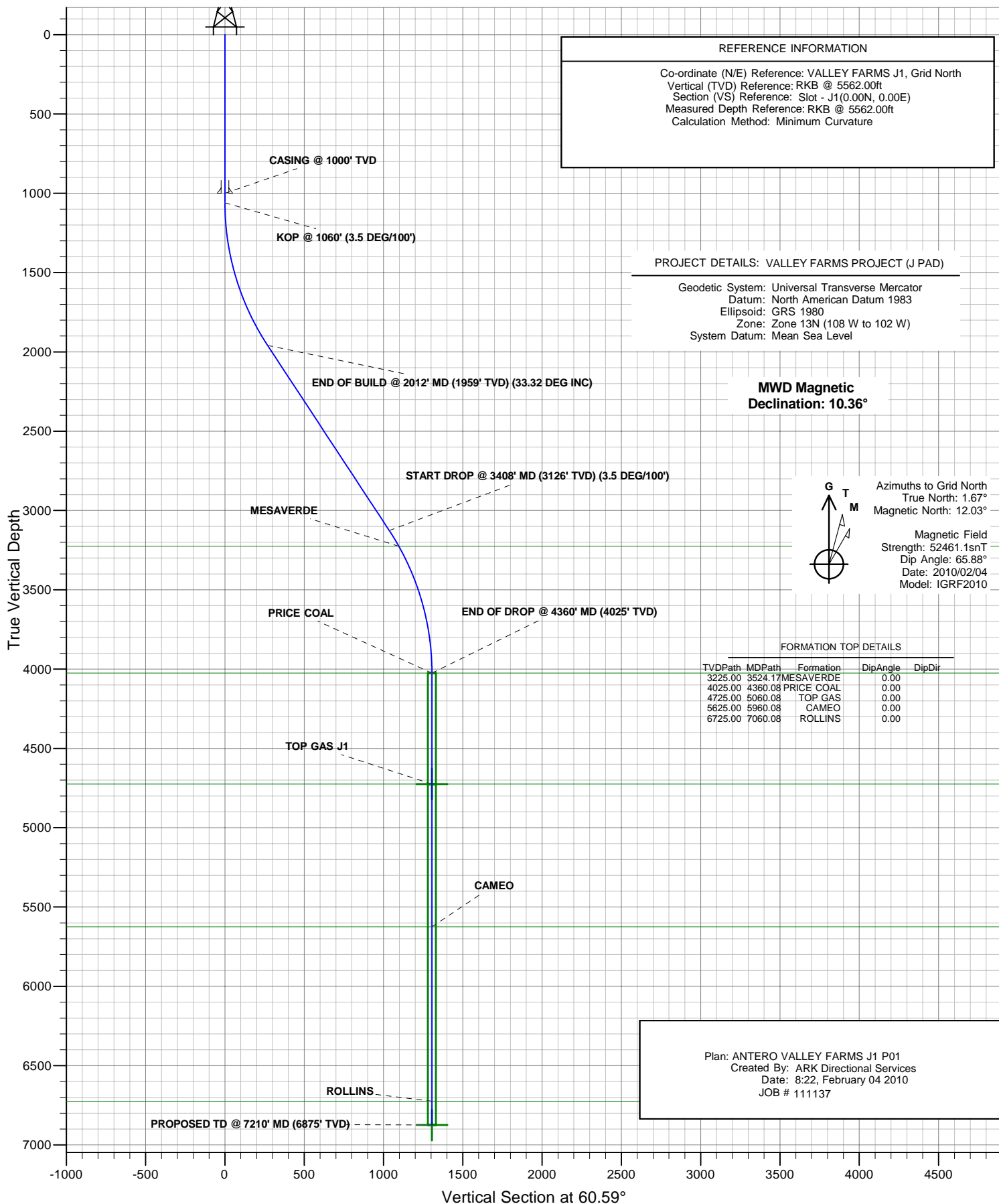




ANTERO RESOURCES

ANTERO VALLEY FARMS J1

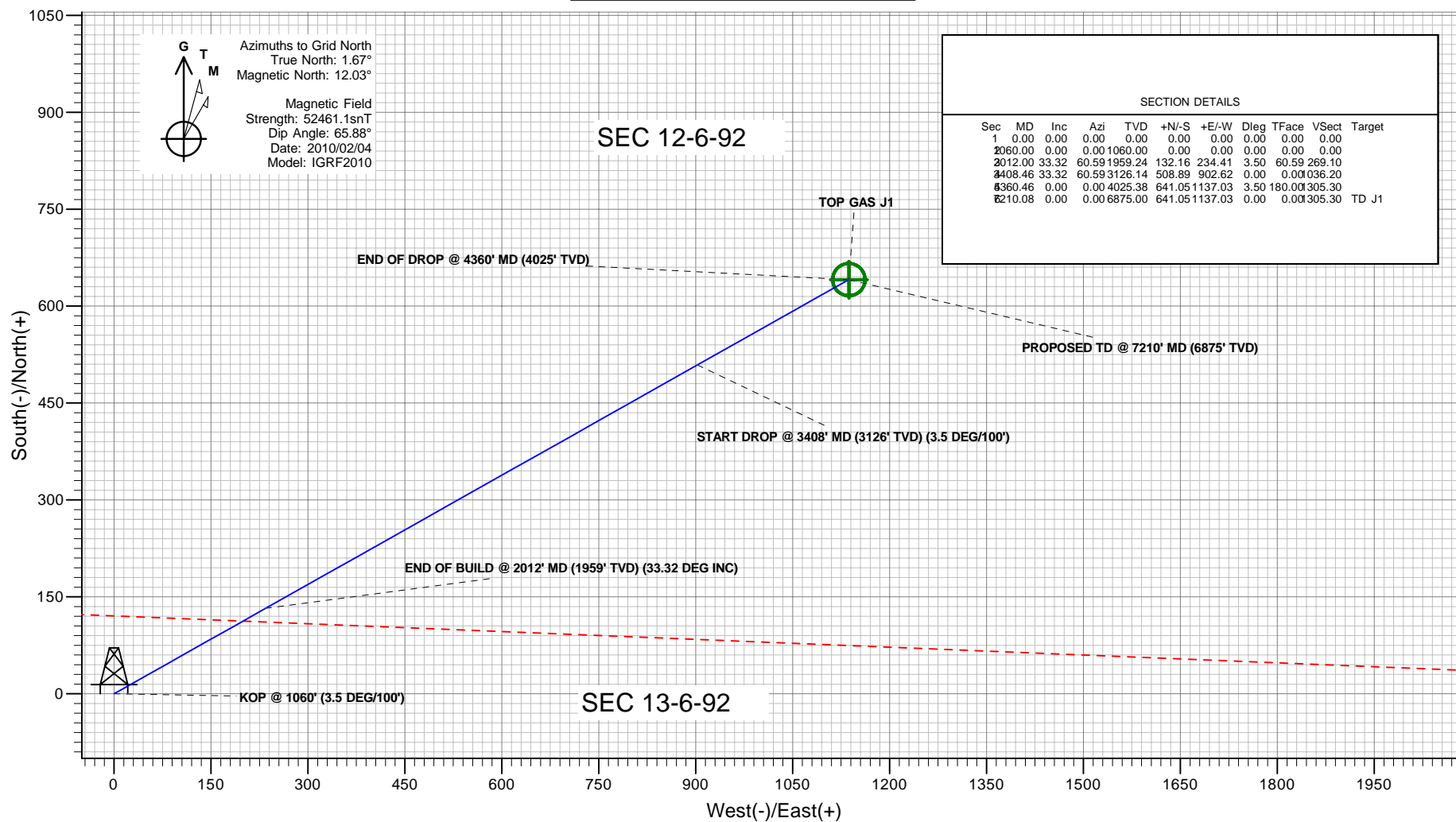




PLAN VIEW

ANTERO RESOURCES

Project: VALLEY FARMS PROJECT (J PAD)
Site: FRONTIER 12
Well: VALLEY FARMS J1 (111137)
Wellbore: ANTERO VALLEY FARMS J1
Design: ANTERO VALLEY FARMS J1 P01
JOB # 111137



Plan: ANTERO VALLEY FARMS J1 P01
Created By: ARK Directional Services
Date: 8:15, February 04 2010

PROJECT DETAILS: VALLEY FARMS PROJECT (J PAD)

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

REFERENCE INFORMATION

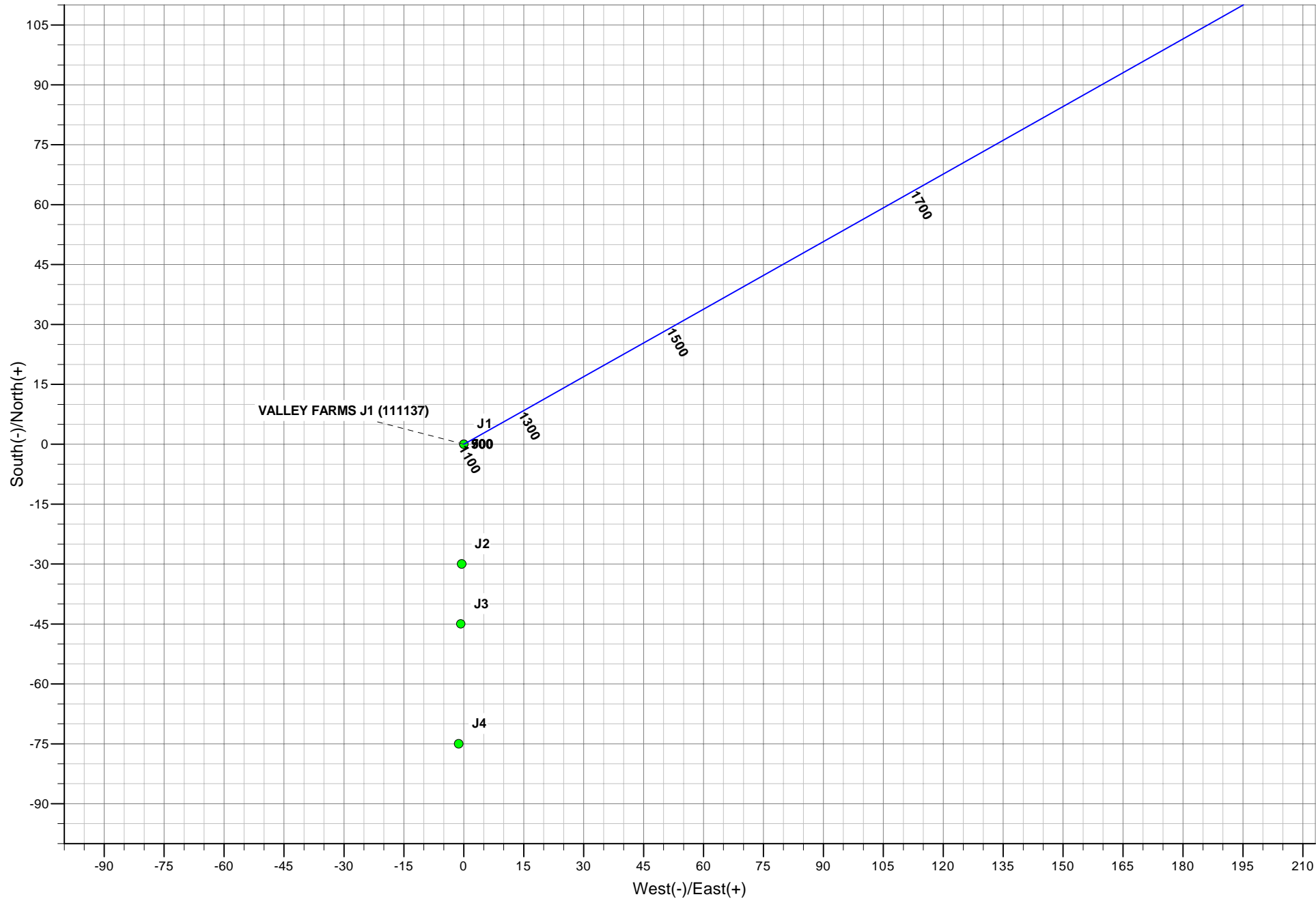
Co-ordinate (N/E) Reference: VALLEY FARMS J1, Grid North
Vertical (TVD) Reference: RKB @ 5562.00ft
Section (VS) Reference: Slot - J1(0.00N, 0.00E)
Measured Depth Reference: RKB @ 5562.00ft
Calculation Method: Minimum Curvature



ANTERO VALLEY FARMS J1



SPIDER PLOT



ANTERO RESOURCES

**VALLEY FARMS PROJECT (J PAD)
FRONTIER 12**

Plan: ANTERO VALLEY FARMS J1 P01

Standard Planning Report - Geographic

04 February, 2010

Ark Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well VALLEY FARMS J1 (111137) - Slot J1
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5562.00ft
Project:	VALLEY FARMS PROJECT (J PAD)	MD Reference:	RKB @ 5562.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS J1 (111137)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS J1		
Design:	ANTERO VALLEY FARMS J1 P01		

Project	VALLEY FARMS PROJECT (J PAD)		
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		FRONTIER 12			
Site Position:		Northing:	14,367,770.23 usft	Latitude:	39° 32' 1.995 N
From:	Lat/Long	Easting:	901,508.18 usft	Longitude:	107° 37' 14.057 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	-1.67 °

Well	VALLEY FARMS J1 (111137) - Slot J1					
Well Position	+N/-S	0.00 ft	Northing:	14,367,770.23 usft	Latitude:	39° 32' 1.995 N
	+E/-W	0.00 ft	Easting:	901,508.18 usft	Longitude:	107° 37' 14.057 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,538.00 ft

Wellbore	ANTERO VALLEY FARMS J1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2010/02/04	10.36	65.88	52,461

Design	ANTERO VALLEY FARMS J1 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	60.59	

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	
1,060.00	0.00	0.00	1,060.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,012.00	33.32	60.59	1,959.24	132.16	234.41	3.50	3.50	0.00	60.59	
3,408.46	33.32	60.59	3,126.14	508.89	902.62	0.00	0.00	0.00	0.00	
4,360.46	0.00	0.00	4,025.38	641.05	1,137.03	3.50	-3.50	0.00	180.00	
7,210.08	0.00	0.00	6,875.00	641.05	1,137.03	0.00	0.00	0.00	0.00	TD J1

Ark Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well VALLEY FARMS J1 (111137) - Slot J1
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5562.00ft
Project:	VALLEY FARMS PROJECT (J PAD)	MD Reference:	RKB @ 5562.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS J1 (111137)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS J1		
Design:	ANTERO VALLEY FARMS J1 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	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
100.00	0.00	0.00	100.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
200.00	0.00	0.00	200.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
300.00	0.00	0.00	300.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
400.00	0.00	0.00	400.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
500.00	0.00	0.00	500.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
600.00	0.00	0.00	600.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
700.00	0.00	0.00	700.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
800.00	0.00	0.00	800.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
900.00	0.00	0.00	900.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
CASING @ 1000' TVD									
1,060.00	0.00	0.00	1,060.00	0.00	0.00	14,367,770.23	901,508.18	39° 32' 1.995 N	107° 37' 14.057 W
KOP @ 1060' (3.5 DEG/100')									
1,100.00	1.40	60.59	1,100.00	0.24	0.43	14,367,770.47	901,508.60	39° 32' 1.998 N	107° 37' 14.052 W
1,200.00	4.90	60.59	1,199.83	2.94	5.21	14,367,773.17	901,513.39	39° 32' 2.026 N	107° 37' 13.992 W
1,300.00	8.40	60.59	1,299.14	8.62	15.30	14,367,778.86	901,523.47	39° 32' 2.085 N	107° 37' 13.866 W
1,400.00	11.90	60.59	1,397.56	17.28	30.65	14,367,787.51	901,538.82	39° 32' 2.175 N	107° 37' 13.673 W
1,500.00	15.40	60.59	1,494.72	28.87	51.20	14,367,799.10	901,559.38	39° 32' 2.295 N	107° 37' 13.415 W
1,600.00	18.90	60.59	1,590.26	43.35	76.88	14,367,813.58	901,585.06	39° 32' 2.446 N	107° 37' 13.093 W
1,700.00	22.40	60.59	1,683.82	60.66	107.60	14,367,830.90	901,615.77	39° 32' 2.626 N	107° 37' 12.708 W
1,800.00	25.90	60.59	1,775.05	80.75	143.23	14,367,850.99	901,651.41	39° 32' 2.834 N	107° 37' 12.261 W
1,900.00	29.40	60.59	1,863.62	103.54	183.65	14,367,873.77	901,691.83	39° 32' 3.071 N	107° 37' 11.753 W
2,000.00	32.90	60.59	1,949.19	128.94	228.70	14,367,899.18	901,736.88	39° 32' 3.335 N	107° 37' 11.188 W
2,012.00	33.32	60.59	1,959.24	132.16	234.41	14,367,902.39	901,742.59	39° 32' 3.368 N	107° 37' 11.117 W
END OF BUILD @ 2012' MD (1959' TVD) (33.32 DEG INC)									
2,100.00	33.32	60.59	2,032.77	155.90	276.52	14,367,926.13	901,784.70	39° 32' 3.615 N	107° 37' 10.588 W
2,200.00	33.32	60.59	2,116.34	182.88	324.37	14,367,953.11	901,832.55	39° 32' 3.895 N	107° 37' 9.988 W
2,300.00	33.32	60.59	2,199.90	209.86	372.22	14,367,980.09	901,880.40	39° 32' 4.175 N	107° 37' 9.388 W
2,400.00	33.32	60.59	2,283.46	236.83	420.07	14,368,007.07	901,928.25	39° 32' 4.455 N	107° 37' 8.787 W
2,500.00	33.32	60.59	2,367.02	263.81	467.92	14,368,034.05	901,976.10	39° 32' 4.736 N	107° 37' 8.187 W
2,600.00	33.32	60.59	2,450.58	290.79	515.77	14,368,061.02	902,023.95	39° 32' 5.016 N	107° 37' 7.587 W
2,700.00	33.32	60.59	2,534.14	317.77	563.62	14,368,088.00	902,071.80	39° 32' 5.296 N	107° 37' 6.986 W
2,800.00	33.32	60.59	2,617.71	344.75	611.47	14,368,114.98	902,119.65	39° 32' 5.576 N	107° 37' 6.386 W
2,900.00	33.32	60.59	2,701.27	371.72	659.32	14,368,141.96	902,167.50	39° 32' 5.857 N	107° 37' 5.786 W
3,000.00	33.32	60.59	2,784.83	398.70	707.17	14,368,168.93	902,215.35	39° 32' 6.137 N	107° 37' 5.185 W
3,100.00	33.32	60.59	2,868.39	425.68	755.02	14,368,195.91	902,263.20	39° 32' 6.417 N	107° 37' 4.585 W
3,200.00	33.32	60.59	2,951.95	452.66	802.87	14,368,222.89	902,311.05	39° 32' 6.697 N	107° 37' 3.985 W
3,300.00	33.32	60.59	3,035.51	479.63	850.73	14,368,249.87	902,358.90	39° 32' 6.977 N	107° 37' 3.384 W
3,408.46	33.32	60.59	3,126.14	508.89	902.62	14,368,279.13	902,410.80	39° 32' 7.281 N	107° 37' 2.733 W
START DROP @ 3408' MD (3126' TVD) (3.5 DEG/100')									
3,500.00	30.12	60.59	3,204.00	532.53	944.54	14,368,302.76	902,452.72	39° 32' 7.527 N	107° 37' 2.207 W
3,524.17	29.27	60.59	3,225.00	538.41	954.97	14,368,308.64	902,463.15	39° 32' 7.588 N	107° 37' 2.077 W
MESAVERDE									
3,600.00	26.62	60.59	3,291.98	555.86	985.92	14,368,326.09	902,494.10	39° 32' 7.769 N	107° 37' 1.688 W
3,700.00	23.12	60.59	3,382.70	576.50	1,022.54	14,368,346.74	902,530.72	39° 32' 7.983 N	107° 37' 1.229 W
3,800.00	19.62	60.59	3,475.81	594.39	1,054.27	14,368,364.63	902,562.45	39° 32' 8.169 N	107° 37' 0.831 W
3,900.00	16.12	60.59	3,570.97	609.46	1,081.00	14,368,379.69	902,589.17	39° 32' 8.326 N	107° 37' 0.495 W
4,000.00	12.62	60.59	3,667.83	621.64	1,102.61	14,368,391.88	902,610.78	39° 32' 8.452 N	107° 37' 0.224 W
4,100.00	9.12	60.59	3,766.02	630.90	1,119.02	14,368,401.13	902,627.20	39° 32' 8.548 N	107° 37' 0.018 W
4,200.00	5.62	60.59	3,865.18	637.19	1,130.19	14,368,407.43	902,638.36	39° 32' 8.614 N	107° 36' 59.878 W
4,300.00	2.12	60.59	3,964.94	640.51	1,136.06	14,368,410.74	902,644.24	39° 32' 8.648 N	107° 36' 59.805 W
4,360.08	0.01	60.59	4,025.00	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
PRICE COAL									

Ark Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well VALLEY FARMS J1 (111137) - Slot J1
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5562.00ft
Project:	VALLEY FARMS PROJECT (J PAD)	MD Reference:	RKB @ 5562.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS J1 (111137)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS J1		
Design:	ANTERO VALLEY FARMS J1 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
4,360.46	0.00	0.00	4,025.38	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
END OF DROP @ 4360' MD (4025' TVD)									
4,400.00	0.00	0.00	4,064.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
4,500.00	0.00	0.00	4,164.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
4,600.00	0.00	0.00	4,264.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
4,700.00	0.00	0.00	4,364.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
4,800.00	0.00	0.00	4,464.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
4,900.00	0.00	0.00	4,564.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,000.00	0.00	0.00	4,664.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,060.08	0.00	0.00	4,725.00	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
TOP GAS - TOP GAS J1									
5,100.00	0.00	0.00	4,764.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,200.00	0.00	0.00	4,864.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,300.00	0.00	0.00	4,964.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,400.00	0.00	0.00	5,064.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,500.00	0.00	0.00	5,164.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,600.00	0.00	0.00	5,264.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,700.00	0.00	0.00	5,364.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,800.00	0.00	0.00	5,464.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,900.00	0.00	0.00	5,564.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
5,960.08	0.00	0.00	5,625.00	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
CAMEO									
6,000.00	0.00	0.00	5,664.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,100.00	0.00	0.00	5,764.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,200.00	0.00	0.00	5,864.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,300.00	0.00	0.00	5,964.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,400.00	0.00	0.00	6,064.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,500.00	0.00	0.00	6,164.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,600.00	0.00	0.00	6,264.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,700.00	0.00	0.00	6,364.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,800.00	0.00	0.00	6,464.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
6,900.00	0.00	0.00	6,564.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
7,000.00	0.00	0.00	6,664.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
7,060.08	0.00	0.00	6,725.00	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
ROLLINS									
7,100.00	0.00	0.00	6,764.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
7,200.00	0.00	0.00	6,864.92	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
7,210.05	0.00	0.00	6,874.97	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
PROPOSED TD @ 7210' MD (6875' TVD)									
7,210.08	0.00	0.00	6,875.00	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
TD J1									

Ark Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well VALLEY FARMS J1 (111137) - Slot J1
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5562.00ft
Project:	VALLEY FARMS PROJECT (J PAD)	MD Reference:	RKB @ 5562.00ft
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS J1 (111137)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS J1		
Design:	ANTERO VALLEY FARMS J1 P01		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
TOP GAS J1	0.00	360.00	4,725.00	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 W
- plan hits target center									
- Circle (radius 25.00)									
TD J1	0.00	360.00	6,875.00	641.05	1,137.03	14,368,411.29	902,645.21	39° 32' 8.654 N	107° 36' 59.792 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	CASING @ 1000' TVD	9.62	12.25

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
3,524.17	3,225.00	MESAVERDE		0.00	
4,360.08	4,025.00	PRICE COAL		0.00	
5,060.08	4,725.00	TOP GAS		0.00	
5,960.08	5,625.00	CAMEO		0.00	
7,060.08	6,725.00	ROLLINS		0.00	

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 @ 1060' (3.5 DEG/100')
2,012.00	1,959.24	132.16	234.41	END OF BUILD @ 2012' MD (1959' TVD) (33.32 DEG INC)
3,408.46	3,126.14	508.89	902.62	START DROP @ 3408' MD (3126' TVD) (3.5 DEG/100')
4,360.46	4,025.38	641.05	1,137.03	END OF DROP @ 4360' MD (4025' TVD)
7,210.05	6,874.97	641.05	1,137.03	PROPOSED TD @ 7210' MD (6875' TVD)