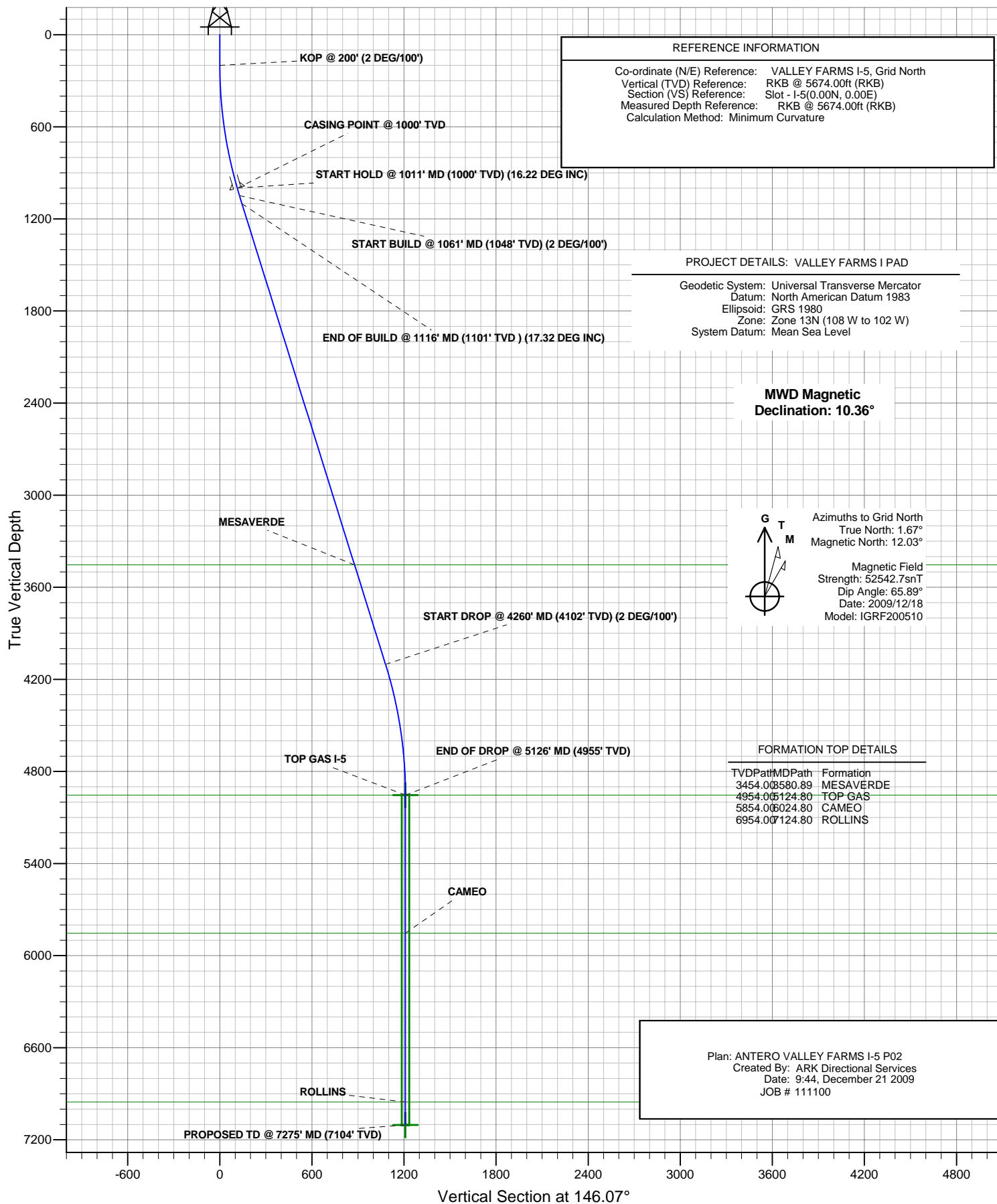




ANTERO RESOURCES

ANTERO VALLEY FARMS I-5



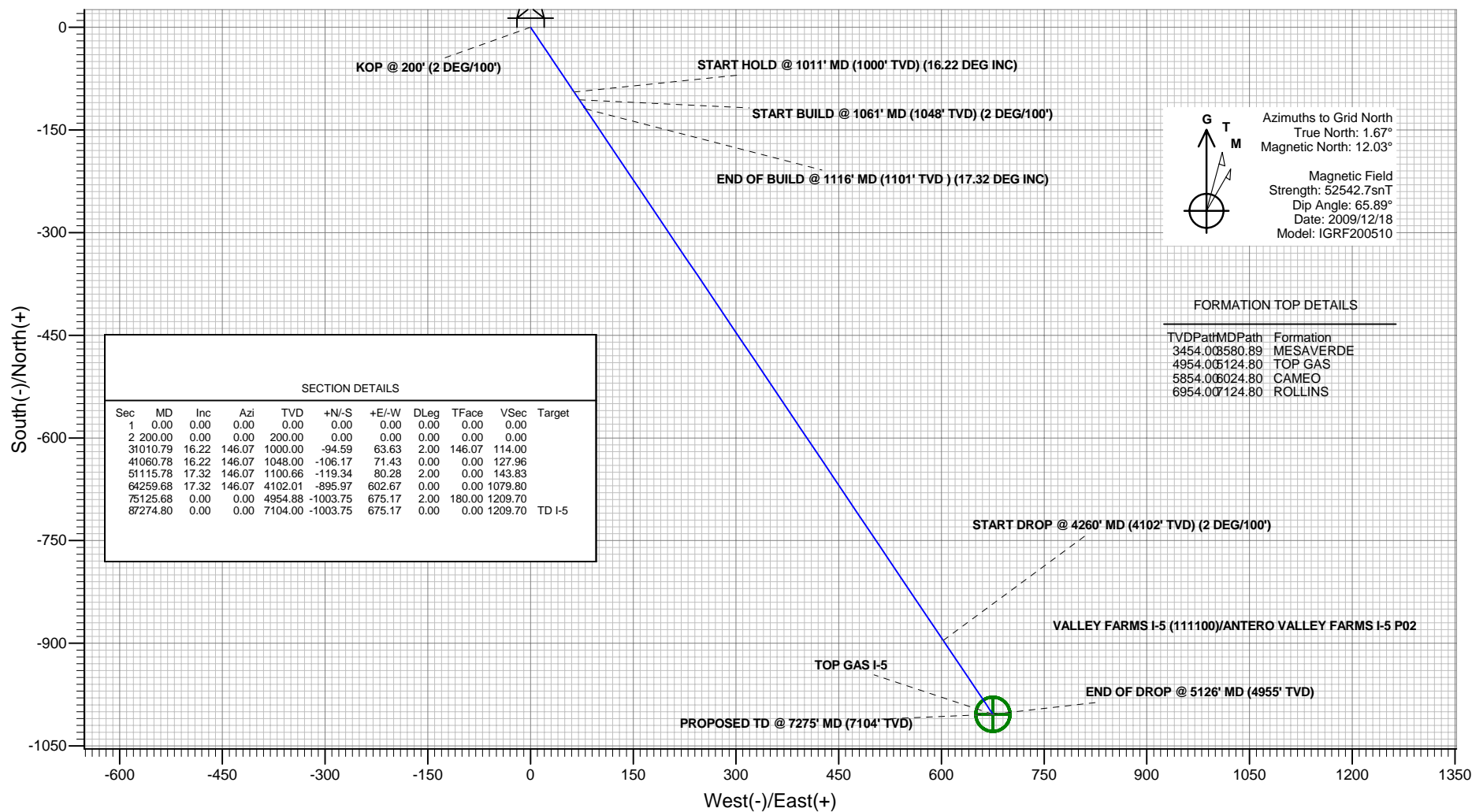


ANTERO RESOURCES

Project: VALLEY FARMS I PAD
Site: FRONTIER 12
Well: VALLEY FARMS I-5 (111100)
Wellbore: ANTERO VALLEY FARMS I-5
Design: ANTERO VALLEY FARMS I-5 P02
JOB # 111100



PLAN VIEW



Plan: ANTERO VALLEY FARMS I-5 P02
Created By: ARK Directional Services
Date: 9:48, December 21 2009

PROJECT DETAILS: VALLEY FARMS I 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 I-5, Grid North
Vertical (TVD) Reference: RKB @ 5674.00ft (RKB)
Section (VS) Reference: Slot - I-5(0.00N, 0.00E)
Measured Depth Reference: RKB @ 5674.00ft (RKB)
Calculation Method: Minimum Curvature

ANTERO RESOURCES

VALLEY FARMS I PAD

FRONTIER 12

VALLEY FARMS I-5

Plan: ANTERO VALLEY FARMS I-5 P02

Standard Planning Report - Geographic

21 December, 2009

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS I-5 (111100) - Slot I-5
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5674.00ft (RKB)
Project:	VALLEY FARMS I PAD	MD Reference:	RKB @ 5674.00ft (RKB)
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS I-5 (111100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS I-5		
Design:	ANTERO VALLEY FARMS I-5 P02		

Project	VALLEY FARMS I 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:	14,365,113.21 ft	Latitude:	39° 31' 35.888 N
From:	Lat/Long	Easting:	901,976.81 ft	Longitude:	107° 37' 7.093 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.67 °

Well	VALLEY FARMS I-5 (111100) - Slot I-5					
Well Position	+N/-S	0.00 ft	Northing:	14,365,113.21 ft	Latitude:	39° 31' 35.888 N
	+E/-W	0.00 ft	Easting:	901,976.81 ft	Longitude:	107° 37' 7.093 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,650.00 ft

Wellbore	ANTERO VALLEY FARMS I-5				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009/12/18	10.36	65.89	52,543

Design	ANTERO VALLEY FARMS I-5 P02			
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	146.07

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	
1,010.79	16.22	146.07	1,000.00	-94.59	63.63	2.00	2.00	0.00	146.07	
1,060.78	16.22	146.07	1,048.00	-106.17	71.43	0.00	0.00	0.00	0.00	
1,115.78	17.32	146.07	1,100.66	-119.34	80.28	2.00	2.00	0.00	0.00	
4,259.68	17.32	146.07	4,102.01	-895.97	602.67	0.00	0.00	0.00	0.00	
5,125.68	0.00	0.00	4,954.88	-1,003.75	675.17	2.00	-2.00	0.00	180.00	
7,274.80	0.00	0.00	7,104.00	-1,003.75	675.17	0.00	0.00	0.00	0.00	TD I-5

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS I-5 (111100) - Slot I-5
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5674.00ft (RKB)
Project:	VALLEY FARMS I PAD	MD Reference:	RKB @ 5674.00ft (RKB)
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS I-5 (111100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS I-5		
Design:	ANTERO VALLEY FARMS I-5 P02		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,365,113.21	901,976.81	39° 31' 35.888 N	107° 37' 7.093 W
100.00	0.00	0.00	100.00	0.00	0.00	14,365,113.21	901,976.81	39° 31' 35.888 N	107° 37' 7.093 W
200.00	0.00	0.00	200.00	0.00	0.00	14,365,113.21	901,976.81	39° 31' 35.888 N	107° 37' 7.093 W
KOP @ 200' (2 DEG/100')									
300.00	2.00	146.07	299.98	-1.45	0.97	14,365,111.77	901,977.79	39° 31' 35.874 N	107° 37' 7.080 W
400.00	4.00	146.07	399.84	-5.79	3.90	14,365,107.42	901,980.71	39° 31' 35.831 N	107° 37' 7.042 W
500.00	6.00	146.07	499.45	-13.02	8.76	14,365,100.19	901,985.58	39° 31' 35.761 N	107° 37' 6.977 W
600.00	8.00	146.07	598.70	-23.14	15.57	14,365,090.08	901,992.38	39° 31' 35.664 N	107° 37' 6.886 W
700.00	10.00	146.07	697.46	-36.12	24.30	14,365,077.09	902,001.11	39° 31' 35.538 N	107° 37' 6.770 W
800.00	12.00	146.07	795.62	-51.96	34.95	14,365,061.26	902,011.77	39° 31' 35.384 N	107° 37' 6.628 W
900.00	14.00	146.07	893.05	-70.62	47.51	14,365,042.59	902,024.33	39° 31' 35.204 N	107° 37' 6.461 W
1,000.00	16.00	146.07	989.64	-92.10	61.96	14,365,021.11	902,038.78	39° 31' 34.996 N	107° 37' 6.269 W
1,010.79	16.22	146.07	1,000.00	-94.59	63.63	14,365,018.63	902,040.45	39° 31' 34.972 N	107° 37' 6.247 W
START HOLD @ 1011' MD (1000' TVD) (16.22 DEG INC) - CASING POINT @ 1000' TVD									
1,060.78	16.22	146.07	1,048.00	-106.17	71.43	14,365,007.04	902,048.24	39° 31' 34.859 N	107° 37' 6.143 W
START BUILD @ 1061' MD (1048' TVD) (2 DEG/100')									
1,100.00	17.00	146.07	1,085.59	-115.48	77.69	14,364,997.74	902,054.50	39° 31' 34.769 N	107° 37' 6.060 W
1,115.78	17.32	146.07	1,100.66	-119.34	80.28	14,364,993.87	902,057.10	39° 31' 34.732 N	107° 37' 6.025 W
END OF BUILD @ 1116' MD (1101' TVD) (17.32 DEG INC)									
1,200.00	17.32	146.07	1,181.07	-140.15	94.28	14,364,973.07	902,071.09	39° 31' 34.531 N	107° 37' 5.839 W
1,300.00	17.32	146.07	1,276.53	-164.85	110.89	14,364,948.37	902,087.71	39° 31' 34.291 N	107° 37' 5.618 W
1,400.00	17.32	146.07	1,372.00	-189.55	127.51	14,364,923.66	902,104.32	39° 31' 34.052 N	107° 37' 5.397 W
1,500.00	17.32	146.07	1,467.46	-214.25	144.12	14,364,898.96	902,120.94	39° 31' 33.813 N	107° 37' 5.176 W
1,600.00	17.32	146.07	1,562.93	-238.96	160.74	14,364,874.26	902,137.55	39° 31' 33.574 N	107° 37' 4.955 W
1,700.00	17.32	146.07	1,658.39	-263.66	177.36	14,364,849.56	902,154.17	39° 31' 33.334 N	107° 37' 4.734 W
1,800.00	17.32	146.07	1,753.86	-288.36	193.97	14,364,824.85	902,170.79	39° 31' 33.095 N	107° 37' 4.513 W
1,900.00	17.32	146.07	1,849.33	-313.06	210.59	14,364,800.15	902,187.40	39° 31' 32.856 N	107° 37' 4.291 W
2,000.00	17.32	146.07	1,944.79	-337.77	227.20	14,364,775.45	902,204.02	39° 31' 32.617 N	107° 37' 4.070 W
2,100.00	17.32	146.07	2,040.26	-362.47	243.82	14,364,750.75	902,220.63	39° 31' 32.378 N	107° 37' 3.849 W
2,200.00	17.32	146.07	2,135.72	-387.17	260.44	14,364,726.04	902,237.25	39° 31' 32.138 N	107° 37' 3.628 W
2,300.00	17.32	146.07	2,231.19	-411.87	277.05	14,364,701.34	902,253.86	39° 31' 31.899 N	107° 37' 3.407 W
2,400.00	17.32	146.07	2,326.65	-436.58	293.67	14,364,676.64	902,270.48	39° 31' 31.660 N	107° 37' 3.186 W
2,500.00	17.32	146.07	2,422.12	-461.28	310.28	14,364,651.94	902,287.10	39° 31' 31.421 N	107° 37' 2.965 W
2,600.00	17.32	146.07	2,517.58	-485.98	326.90	14,364,627.23	902,303.71	39° 31' 31.182 N	107° 37' 2.744 W
2,700.00	17.32	146.07	2,613.05	-510.68	343.51	14,364,602.53	902,320.33	39° 31' 30.942 N	107° 37' 2.523 W
2,800.00	17.32	146.07	2,708.52	-535.39	360.13	14,364,577.83	902,336.94	39° 31' 30.703 N	107° 37' 2.302 W
2,900.00	17.32	146.07	2,803.98	-560.09	376.75	14,364,553.13	902,353.56	39° 31' 30.464 N	107° 37' 2.081 W
3,000.00	17.32	146.07	2,899.45	-584.79	393.36	14,364,528.42	902,370.17	39° 31' 30.225 N	107° 37' 1.860 W
3,100.00	17.32	146.07	2,994.91	-609.49	409.98	14,364,503.72	902,386.79	39° 31' 29.986 N	107° 37' 1.639 W
3,200.00	17.32	146.07	3,090.38	-634.20	426.59	14,364,479.02	902,403.41	39° 31' 29.746 N	107° 37' 1.417 W
3,300.00	17.32	146.07	3,185.84	-658.90	443.21	14,364,454.32	902,420.02	39° 31' 29.507 N	107° 37' 1.196 W
3,400.00	17.32	146.07	3,281.31	-683.60	459.82	14,364,429.61	902,436.64	39° 31' 29.268 N	107° 37' 0.975 W
3,500.00	17.32	146.07	3,376.78	-708.30	476.44	14,364,404.91	902,453.25	39° 31' 29.029 N	107° 37' 0.754 W
3,580.89	17.32	146.07	3,454.00	-728.29	489.88	14,364,384.93	902,466.69	39° 31' 28.835 N	107° 37' 0.575 W
MESAVERDE									
3,600.00	17.32	146.07	3,472.24	-733.01	493.06	14,364,380.21	902,469.87	39° 31' 28.790 N	107° 37' 0.533 W
3,700.00	17.32	146.07	3,567.71	-757.71	509.67	14,364,355.51	902,486.49	39° 31' 28.550 N	107° 37' 0.312 W
3,800.00	17.32	146.07	3,663.17	-782.41	526.29	14,364,330.80	902,503.10	39° 31' 28.311 N	107° 37' 0.091 W
3,900.00	17.32	146.07	3,758.64	-807.11	542.90	14,364,306.10	902,519.72	39° 31' 28.072 N	107° 36' 59.870 W
4,000.00	17.32	146.07	3,854.10	-831.82	559.52	14,364,281.40	902,536.33	39° 31' 27.833 N	107° 36' 59.649 W
4,100.00	17.32	146.07	3,949.57	-856.52	576.14	14,364,256.70	902,552.95	39° 31' 27.594 N	107° 36' 59.428 W
4,200.00	17.32	146.07	4,045.04	-881.22	592.75	14,364,231.99	902,569.56	39° 31' 27.354 N	107° 36' 59.207 W
4,259.68	17.32	146.07	4,102.01	-895.97	602.67	14,364,217.25	902,579.48	39° 31' 27.212 N	107° 36' 59.075 W
START DROP @ 4260' MD (4102' TVD) (2 DEG/100')									

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS I-5 (111100) - Slot I-5
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5674.00ft (RKB)
Project:	VALLEY FARMS I PAD	MD Reference:	RKB @ 5674.00ft (RKB)
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS I-5 (111100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS I-5		
Design:	ANTERO VALLEY FARMS I-5 P02		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,300.00	16.51	146.07	4,140.58	-905.70	609.22	14,364,207.52	902,586.03	39° 31' 27.117 N	107° 36' 58.988 W
4,400.00	14.51	146.07	4,236.94	-927.89	624.14	14,364,185.32	902,600.96	39° 31' 26.902 N	107° 36' 58.789 W
4,500.00	12.51	146.07	4,334.16	-947.28	637.18	14,364,165.94	902,614.00	39° 31' 26.715 N	107° 36' 58.616 W
4,600.00	10.51	146.07	4,432.15	-963.84	648.32	14,364,149.37	902,625.14	39° 31' 26.554 N	107° 36' 58.467 W
4,700.00	8.51	146.07	4,530.77	-977.56	657.55	14,364,135.66	902,634.36	39° 31' 26.421 N	107° 36' 58.345 W
4,800.00	6.51	146.07	4,629.90	-988.41	664.85	14,364,124.81	902,641.66	39° 31' 26.316 N	107° 36' 58.248 W
4,900.00	4.51	146.07	4,729.43	-996.38	670.21	14,364,116.84	902,647.02	39° 31' 26.239 N	107° 36' 58.176 W
5,000.00	2.51	146.07	4,829.24	-1,001.46	673.63	14,364,111.75	902,650.44	39° 31' 26.190 N	107° 36' 58.131 W
5,100.00	0.51	146.07	4,929.20	-1,003.65	675.10	14,364,109.56	902,651.92	39° 31' 26.169 N	107° 36' 58.111 W
5,124.80	0.02	146.07	4,954.00	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
TOP GAS									
5,125.68	0.00	146.07	4,954.88	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
END OF DROP @ 5126' MD (4955' TVD)									
5,200.00	0.00	0.00	5,029.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
5,300.00	0.00	0.00	5,129.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
5,400.00	0.00	0.00	5,229.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
5,500.00	0.00	0.00	5,329.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
5,600.00	0.00	0.00	5,429.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
5,700.00	0.00	0.00	5,529.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
5,800.00	0.00	0.00	5,629.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
5,900.00	0.00	0.00	5,729.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,000.00	0.00	0.00	5,829.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,024.80	0.00	0.00	5,854.00	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
CAMEO									
6,100.00	0.00	0.00	5,929.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,200.00	0.00	0.00	6,029.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,300.00	0.00	0.00	6,129.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,400.00	0.00	0.00	6,229.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,500.00	0.00	0.00	6,329.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,600.00	0.00	0.00	6,429.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,700.00	0.00	0.00	6,529.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,800.00	0.00	0.00	6,629.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
6,900.00	0.00	0.00	6,729.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
7,000.00	0.00	0.00	6,829.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
7,100.00	0.00	0.00	6,929.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
7,124.80	0.00	0.00	6,954.00	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
ROLLINS									
7,200.00	0.00	0.00	7,029.20	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
7,274.78	0.00	0.00	7,103.98	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
PROPOSED TD @ 7275' MD (7104' TVD)									
7,274.80	0.00	0.00	7,104.00	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W

Planning Report - Geographic

Database:	EDMDB	Local Co-ordinate Reference:	Well VALLEY FARMS I-5 (111100) - Slot I-5
Company:	ANTERO RESOURCES	TVD Reference:	RKB @ 5674.00ft (RKB)
Project:	VALLEY FARMS I PAD	MD Reference:	RKB @ 5674.00ft (RKB)
Site:	FRONTIER 12	North Reference:	Grid
Well:	VALLEY FARMS I-5 (111100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	ANTERO VALLEY FARMS I-5		
Design:	ANTERO VALLEY FARMS I-5 P02		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
TOP GAS I-5		360.00	4,954.00	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
- plan hits target									
- Circle (radius 25.00)									
TD I-5	0.00	0.00	7,104.00	-1,003.75	675.17	14,364,109.47	902,651.98	39° 31' 26.168 N	107° 36' 58.110 W
- plan hits target									
- Circle (radius 25.00)									

Casing Points					
	Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
	(ft)	(ft)		(in)	(in)
	1,010.79	1,000.00	CASING POINT @ 1000' TVD	8.62	12.25

Formations					
	Measured Depth	Vertical Depth	Name	Lithology	Dip
	(ft)	(ft)			(°)
	3,580.89	3,454.00	MESAVERDE		0.00
	5,124.80	4,954.00	TOP GAS		0.00
	6,024.80	5,854.00	CAMEO		0.00
	7,124.80	6,954.00	ROLLINS		0.00

Plan Annotations					
	Measured Depth	Vertical Depth	Local Coordinates		
	(ft)	(ft)	+N/-S	+E/-W	Comment
	(ft)	(ft)	(ft)	(ft)	
	200.00	200.00	0.00	0.00	KOP @ 200' (2 DEG/100')
	1,010.79	1,000.00	-94.59	63.63	START HOLD @ 1011' MD (1000' TVD) (16.22 DEG INC)
	1,060.78	1,048.00	-106.17	71.43	START BUILD @ 1061' MD (1048' TVD) (2 DEG/100')
	1,115.78	1,100.66	-119.34	80.28	END OF BUILD @ 1116' MD (1101' TVD) (17.32 DEG INC)
	4,259.68	4,102.01	-895.97	602.67	START DROP @ 4260' MD (4102' TVD) (2 DEG/100')
	5,125.68	4,954.88	-1,003.75	675.17	END OF DROP @ 5126' MD (4955' TVD)
	7,274.78	7,103.98	-1,003.75	675.17	PROPOSED TD @ 7275' MD (7104' TVD)