



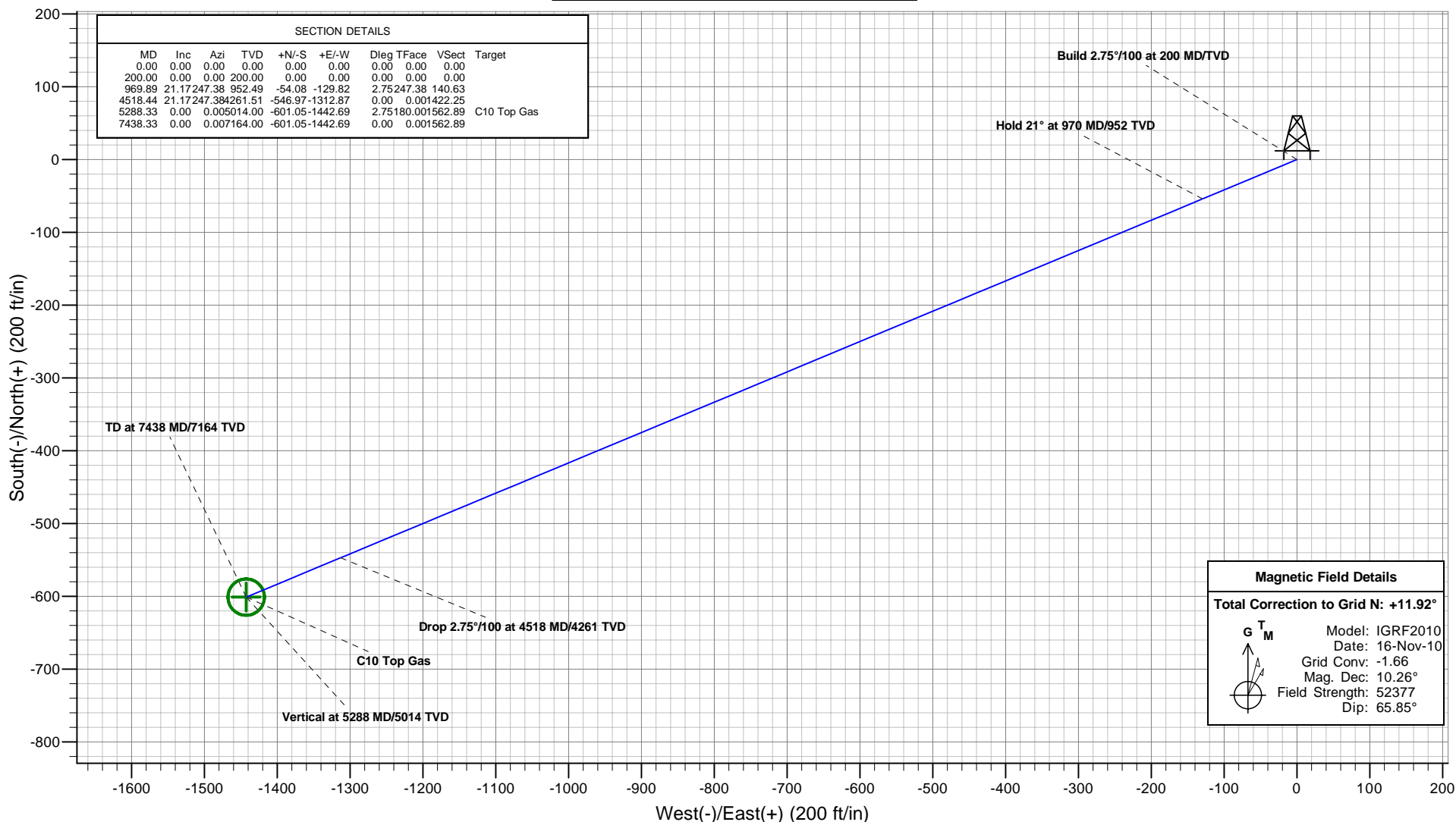
Antero Resources

McLin C10 (111229)



PLAN VIEW

Project: McLin
Site: McLin C
Well: McLin C10 (111229)
Wellbore: McLin C10
Design: McLin C10 P01



Plan: McLin C10 P01
Created By: ARK Directional Services
Date: 13:05, August 17 2010

PROJECT DETAILS: McLin

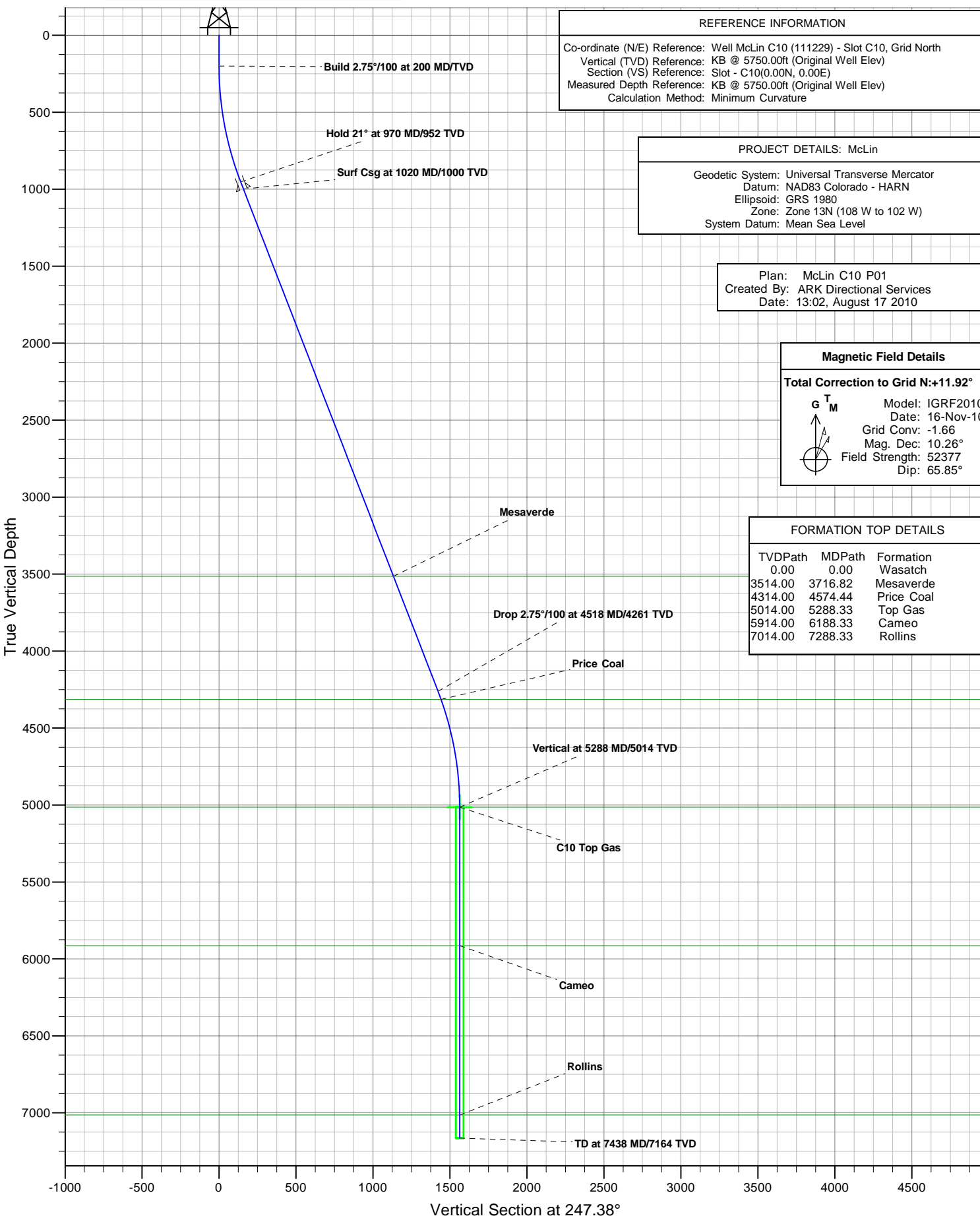
Geodetic System: Universal Transverse Mercator
Datum: NAD83 Colorado - HARN
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well McLin C10 (111229) - Slot C10, Grid North
Vertical (TVD) Reference: KB @ 5750.00ft (Original Well Elev)
Section (VS) Reference: Slot - C10(0.00N, 0.00E)
Measured Depth Reference: KB @ 5750.00ft (Original Well Elev)
Calculation Method: Minimum Curvature



VERTICAL SECTION VIEW



Antero Resources

McLin

McLin C

McLin C10 (111229) - Slot C10

McLin C10

Plan: McLin C10 P01

Standard Planning Report - Geographic

17 August, 2010

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C10 (111229) - Slot C10
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C10 (111229)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C10		
Design:	McLin C10 P01		

Project	McLin		
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	McLin C		
Site Position:		Northing:	14,364,522.752 usft
From:	Map	Easting:	905,235.880 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39.525275157°N
		Longitude:	107.607030464°W
		Grid Convergence:	-1.66 °

Well	McLin C10 (111229) - Slot C10		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	
		Latitude:	39.525144431°N
		Longitude:	107.607194575°W
		Ground Level:	5,726.00 ft

Wellbore	McLin C10				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2010/11/16	10.26	65.85	52,377

Design	McLin C10 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	247.38

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	
969.89	21.17	247.38	952.49	-54.08	-129.82	2.75	2.75	0.00	247.38	
4,518.44	21.17	247.38	4,261.51	-546.97	-1,312.87	0.00	0.00	0.00	0.00	
5,288.33	0.00	0.00	5,014.00	-601.05	-1,442.69	2.75	-2.75	0.00	180.00	C10 Top Gas
7,438.33	0.00	0.00	7,164.00	-601.05	-1,442.69	0.00	0.00	0.00	0.00	

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C10 (111229) - Slot C10
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C10 (111229)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C10		
Design:	McLin C10 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	14,364,476.485	905,188.215	39.525144431°N	107.607194575°W
Wasatch									
100.00	0.00	0.00	100.00	0.00	0.00	14,364,476.485	905,188.215	39.525144431°N	107.607194575°W
200.00	0.00	0.00	200.00	0.00	0.00	14,364,476.485	905,188.215	39.525144431°N	107.607194575°W
Build 2.75°/100 at 200 MD/TVD									
300.00	2.75	247.38	299.96	-0.92	-2.21	14,364,475.562	905,186.000	39.525141723°N	107.607202327°W
400.00	5.50	247.38	399.69	-3.69	-8.85	14,364,472.796	905,179.361	39.525133606°N	107.607225564°W
500.00	8.25	247.38	498.96	-8.29	-19.90	14,364,468.193	905,168.312	39.525120099°N	107.607264233°W
600.00	11.00	247.38	597.55	-14.72	-35.34	14,364,461.763	905,152.880	39.525101232°N	107.607318245°W
700.00	13.75	247.38	695.21	-22.96	-55.12	14,364,453.522	905,133.099	39.525077050°N	107.607387475°W
800.00	16.50	247.38	791.74	-33.00	-79.20	14,364,443.489	905,109.015	39.525047607°N	107.607471765°W
900.00	19.25	247.38	886.90	-44.80	-107.53	14,364,431.686	905,080.685	39.525012972°N	107.607570919°W
969.89	21.17	247.38	952.49	-54.08	-129.82	14,364,422.401	905,058.398	39.524985726°N	107.607648918°W
Hold 21° at 970 MD/952 TVD									
1,000.00	21.17	247.38	980.57	-58.27	-139.86	14,364,418.218	905,048.359	39.524973452°N	107.607684055°W
1,020.00	21.17	247.38	999.22	-61.04	-146.52	14,364,415.440	905,041.691	39.524965300°N	107.607707391°W
Surf Csg at 1020 MD/1000 TVD									
1,100.00	21.17	247.38	1,073.82	-72.16	-173.20	14,364,404.329	905,015.020	39.524932694°N	107.607800737°W
1,200.00	21.17	247.38	1,167.07	-86.05	-206.53	14,364,390.439	904,981.681	39.524891935°N	107.607917419°W
1,300.00	21.17	247.38	1,260.32	-99.94	-239.87	14,364,376.549	904,948.342	39.524851177°N	107.608034100°W
1,400.00	21.17	247.38	1,353.57	-113.83	-273.21	14,364,362.660	904,915.003	39.524810418°N	107.608150782°W
1,500.00	21.17	247.38	1,446.82	-127.71	-306.55	14,364,348.770	904,881.664	39.524769659°N	107.608267463°W
1,600.00	21.17	247.38	1,540.07	-141.60	-339.89	14,364,334.881	904,848.325	39.524728900°N	107.608384145°W
1,700.00	21.17	247.38	1,633.32	-155.49	-373.23	14,364,320.991	904,814.986	39.524688141°N	107.608500826°W
1,800.00	21.17	247.38	1,726.57	-169.38	-406.57	14,364,307.101	904,781.647	39.524647382°N	107.608617507°W
1,900.00	21.17	247.38	1,819.82	-183.27	-439.91	14,364,293.212	904,748.308	39.524606623°N	107.608734188°W
2,000.00	21.17	247.38	1,913.07	-197.16	-473.25	14,364,279.322	904,714.969	39.524565863°N	107.608850869°W
2,100.00	21.17	247.38	2,006.32	-211.05	-506.59	14,364,265.432	904,681.630	39.524525104°N	107.608967549°W
2,200.00	21.17	247.38	2,099.57	-224.94	-539.93	14,364,251.543	904,648.291	39.524484344°N	107.609084230°W
2,300.00	21.17	247.38	2,192.82	-238.83	-573.26	14,364,237.653	904,614.952	39.524443585°N	107.609200910°W
2,400.00	21.17	247.38	2,286.07	-252.72	-606.60	14,364,223.764	904,581.613	39.524402825°N	107.609317590°W
2,500.00	21.17	247.38	2,379.32	-266.61	-639.94	14,364,209.874	904,548.274	39.524362065°N	107.609434270°W
2,600.00	21.17	247.38	2,472.57	-280.50	-673.28	14,364,195.984	904,514.935	39.524321305°N	107.609550950°W
2,700.00	21.17	247.38	2,565.82	-294.39	-706.62	14,364,182.095	904,481.596	39.524280545°N	107.609667630°W
2,800.00	21.17	247.38	2,659.07	-308.28	-739.96	14,364,168.205	904,448.257	39.524239785°N	107.609784309°W
2,900.00	21.17	247.38	2,752.32	-322.17	-773.30	14,364,154.316	904,414.918	39.524199024°N	107.609900989°W
3,000.00	21.17	247.38	2,845.57	-336.06	-806.64	14,364,140.426	904,381.579	39.524158264°N	107.610017668°W
3,100.00	21.17	247.38	2,938.82	-349.95	-839.98	14,364,126.536	904,348.240	39.524117503°N	107.610134347°W
3,200.00	21.17	247.38	3,032.07	-363.84	-873.32	14,364,112.647	904,314.901	39.524076742°N	107.610251026°W
3,300.00	21.17	247.38	3,125.32	-377.73	-906.66	14,364,098.757	904,281.562	39.524035982°N	107.610367705°W
3,400.00	21.17	247.38	3,218.57	-391.62	-939.99	14,364,084.868	904,248.223	39.523995221°N	107.610484384°W
3,500.00	21.17	247.38	3,311.82	-405.51	-973.33	14,364,070.978	904,214.884	39.523954460°N	107.610601063°W
3,600.00	21.17	247.38	3,405.07	-419.40	-1,006.67	14,364,057.088	904,181.545	39.523913698°N	107.610717741°W
3,700.00	21.17	247.38	3,498.32	-433.29	-1,040.01	14,364,043.199	904,148.206	39.523872937°N	107.610834419°W
3,716.82	21.17	247.38	3,514.00	-435.62	-1,045.62	14,364,040.863	904,142.599	39.523866083°N	107.610854040°W
Mesaverde									
3,800.00	21.17	247.38	3,591.57	-447.18	-1,073.35	14,364,029.309	904,114.867	39.523832176°N	107.610951098°W
3,900.00	21.17	247.38	3,684.82	-461.07	-1,106.69	14,364,015.420	904,081.528	39.523791414°N	107.611067776°W
4,000.00	21.17	247.38	3,778.07	-474.96	-1,140.03	14,364,001.530	904,048.189	39.523750653°N	107.611184454°W
4,100.00	21.17	247.38	3,871.32	-488.85	-1,173.37	14,363,987.640	904,014.850	39.523709891°N	107.611301131°W
4,200.00	21.17	247.38	3,964.57	-502.74	-1,206.71	14,363,973.751	903,981.511	39.523669129°N	107.611417809°W
4,300.00	21.17	247.38	4,057.82	-516.62	-1,240.05	14,363,959.861	903,948.172	39.523628367°N	107.611534486°W
4,400.00	21.17	247.38	4,151.07	-530.51	-1,273.39	14,363,945.972	903,914.832	39.523587605°N	107.611651164°W
4,500.00	21.17	247.38	4,244.32	-544.40	-1,306.72	14,363,932.082	903,881.493	39.523546843°N	107.611767841°W

ARK Directional Services

Planning Report - Geographic

Database:	EDM SERVER DB	Local Co-ordinate Reference:	Well McLin C10 (111229) - Slot C10
Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C10 (111229)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C10		
Design:	McLin C10 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	
4,518.44	21.17	247.38	4,261.51	-546.97	-1,312.87	14,363,929.521	903,875.346	39.523539326°N	107.611789355°W	
Drop 2.75°/100 at 4518 MD/4261 TVD										
4,574.44	19.63	247.38	4,314.00	-554.47	-1,330.89	14,363,922.013	903,857.326	39.523517294°N	107.611852419°W	
Price Coal										
4,600.00	18.93	247.38	4,338.13	-557.72	-1,338.68	14,363,918.768	903,849.535	39.523507769°N	107.611879685°W	
4,700.00	16.18	247.38	4,433.46	-569.32	-1,366.52	14,363,907.170	903,821.697	39.523473732°N	107.611977111°W	
4,800.00	13.43	247.38	4,530.13	-579.14	-1,390.10	14,363,897.344	903,798.113	39.523444897°N	107.612059647°W	
4,900.00	10.68	247.38	4,627.92	-587.17	-1,409.38	14,363,889.314	903,778.838	39.523421330°N	107.612127105°W	
5,000.00	7.93	247.38	4,726.59	-593.39	-1,424.30	14,363,883.097	903,763.916	39.523403084°N	107.612179329°W	
5,100.00	5.18	247.38	4,825.93	-597.78	-1,434.84	14,363,878.708	903,753.381	39.523390204°N	107.612216199°W	
5,200.00	2.43	247.38	4,925.70	-600.33	-1,440.96	14,363,876.157	903,747.257	39.523382717°N	107.612237629°W	
5,288.33	0.00	0.00	5,014.00	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
Vertical at 5288 MD/5014 TVD - Top Gas										
5,300.00	0.00	0.00	5,025.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
5,400.00	0.00	0.00	5,125.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
5,500.00	0.00	0.00	5,225.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
5,600.00	0.00	0.00	5,325.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
5,700.00	0.00	0.00	5,425.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
5,800.00	0.00	0.00	5,525.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
5,900.00	0.00	0.00	5,625.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,000.00	0.00	0.00	5,725.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,100.00	0.00	0.00	5,825.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,188.33	0.00	0.00	5,914.00	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
Cameo										
6,200.00	0.00	0.00	5,925.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,300.00	0.00	0.00	6,025.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,400.00	0.00	0.00	6,125.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,500.00	0.00	0.00	6,225.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,600.00	0.00	0.00	6,325.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,700.00	0.00	0.00	6,425.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,800.00	0.00	0.00	6,525.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
6,900.00	0.00	0.00	6,625.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
7,000.00	0.00	0.00	6,725.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
7,100.00	0.00	0.00	6,825.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
7,200.00	0.00	0.00	6,925.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
7,288.33	0.00	0.00	7,014.00	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
Rollins										
7,300.00	0.00	0.00	7,025.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
7,400.00	0.00	0.00	7,125.67	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	
7,438.33	0.00	0.00	7,164.00	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
C10 Top Gas - plan hits target center - Circle (radius 25.00)	0.00	0.00	5,014.00	-601.05	-1,442.69	14,363,875.437	903,745.529	39.523380604°N	107.612243676°W	

ARK Directional Services

Planning Report - Geographic

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Company:	Antero Resources	TVD Reference:	KB @ 5750.00ft (Original Well Elev)
Project:	McLin	MD Reference:	KB @ 5750.00ft (Original Well Elev)
Site:	McLin C	North Reference:	Grid
Well:	McLin C10 (111229)	Survey Calculation Method:	Minimum Curvature
Wellbore:	McLin C10		
Design:	McLin C10 P01		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,020.00	999.22	Surf Csg at 1020 MD/1000 TVD	5.50	6.00	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.00	0.00	Wasatch			
3,716.82	3,514.00	Mesaverde			
4,574.44	4,314.00	Price Coal			
5,288.33	5,014.00	Top Gas			
6,188.33	5,914.00	Cameo			
7,288.33	7,014.00	Rollins			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	Build 2.75°/100 at 200 MD/TVD	
969.89	952.49	-54.08	-129.82	Hold 21° at 970 MD/952 TVD	
4,518.44	4,261.51	-546.97	-1,312.87	Drop 2.75°/100 at 4518 MD/4261 TVD	
5,288.33	5,014.00	-601.05	-1,442.69	Vertical at 5288 MD/5014 TVD	
7,438.33	7,164.00	-601.05	-1,442.69	TD at 7438 MD/7164 TVD	