

Antero Resources

Gentry

Gentry B

Gentry B14 (111424) - Slot B14

Gentry B14

Survey: B14 MWD

Survey Report - Geographic

16 April, 2012

Survey Report - Geographic

Company:	Antero Resources	Local Co-ordinate Reference:	Well Gentry B14 (111424) - Slot B14
Project:	Gentry	TVD Reference:	KB @ 5648.00ft (Original Well Elev)
Site:	Gentry B	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Well:	Gentry B14 (111424)	North Reference:	Grid
Wellbore:	Gentry B14	Survey Calculation Method:	Minimum Curvature
Design:	Gentry B14	Database:	EDM5000-New

Project	Gentry		
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	Gentry B		
Site Position:		Northing:	14,366,383.28 usft
From:	Map	Easting:	880,664.23 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in
		Latitude:	39.528393199°N
		Longitude:	107.694272643°W
		Grid Convergence:	-1.72 °

Well	Gentry B14 (111424) - Slot B14		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	39.528384148°N
		Longitude:	107.694202729°W
		Ground Level:	5,624.00 ft

Wellbore	Gentry B14		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	02/28/12	10.13
			Dip Angle
			(°)
			65.80
			Field Strength
			(nT)
			52,238

Design	Gentry B14		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			286.39

Survey Program	Date	04/16/12		
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
100.00	995.00	B14 gyro (Gentry B14)	NS-GYRO-MS	North sensing gyrocompassing m/s
1,085.00	7,937.00	B14 MWD (Gentry B14)	MWD	MWD - Standard

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map			
Depth	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting	Latitude	Longitude	
(ft)			(ft)			(usft)	(usft)			
995.00	0.34	92.77	995.00	-1.68	1.92	14,366,377.71	880,685.77	39.528379699°N	107.694195758°W	
1,085.00	0.09	239.66	1,085.00	-1.73	2.12	14,366,377.66	880,685.98	39.528379583°N	107.694195025°W	
1,123.00	0.40	302.77	1,123.00	-1.67	1.99	14,366,377.72	880,685.84	39.528379727°N	107.694195517°W	
1,196.00	1.80	337.75	1,195.98	-0.47	1.34	14,366,378.92	880,685.19	39.528382963°N	107.694197941°W	
1,249.00	1.71	329.84	1,248.96	0.98	0.62	14,366,380.37	880,684.48	39.528386894°N	107.694200620°W	
1,312.00	2.42	314.15	1,311.91	2.72	-0.80	14,366,382.11	880,683.05	39.528391548°N	107.694205858°W	
1,375.00	4.00	305.76	1,374.81	4.93	-3.54	14,366,384.32	880,680.31	39.528397388°N	107.694215791°W	
1,438.00	5.49	298.46	1,437.60	7.65	-7.97	14,366,387.04	880,675.88	39.528404487°N	107.694231783°W	
1,501.00	6.59	292.05	1,500.25	10.45	-13.97	14,366,389.84	880,669.88	39.528411657°N	107.694253336°W	
1,564.00	7.60	283.34	1,562.77	12.76	-21.38	14,366,392.15	880,662.48	39.528417409°N	107.694279814°W	
1,627.00	8.70	282.55	1,625.13	14.76	-30.08	14,366,394.15	880,653.77	39.528422171°N	107.694310863°W	

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Site:	Gentry B	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Well:	Gentry B14 (111424)	North Reference:	Grid
Wellbore:	Gentry B14	Survey Calculation Method:	Minimum Curvature
Design:	Gentry B14	Database:	EDM5000-New

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,690.00	10.20	284.53	1,687.27	17.20	-40.13	14,366,396.59	880,643.72	39.528428026°N	107.694346728°W
1,753.00	11.38	284.97	1,749.16	20.20	-51.54	14,366,399.59	880,632.31	39.528435333°N	107.694387449°W
1,816.00	11.69	285.15	1,810.88	23.47	-63.70	14,366,402.86	880,620.15	39.528443314°N	107.694430892°W
1,879.00	11.82	284.97	1,872.56	26.81	-76.10	14,366,406.20	880,607.76	39.528451444°N	107.694475153°W
1,942.00	11.82	285.06	1,934.23	30.15	-88.56	14,366,409.54	880,595.29	39.528459591°N	107.694519663°W
2,005.00	11.60	285.45	1,995.92	33.52	-100.90	14,366,412.91	880,582.96	39.528467806°N	107.694563720°W
2,068.00	11.60	285.23	2,057.63	36.87	-113.11	14,366,416.26	880,570.74	39.528475996°N	107.694607354°W
2,131.00	11.38	284.27	2,119.37	40.06	-125.25	14,366,419.45	880,558.60	39.528483766°N	107.694650683°W
2,193.00	11.29	283.17	2,180.16	42.95	-137.09	14,366,422.34	880,546.77	39.528490723°N	107.694692924°W
2,256.00	11.29	281.63	2,241.94	45.60	-149.13	14,366,424.99	880,534.72	39.528496998°N	107.694735876°W
2,319.00	11.12	284.84	2,303.74	48.40	-161.04	14,366,427.79	880,522.81	39.528503699°N	107.694778375°W
2,383.00	11.12	285.15	2,366.54	51.60	-172.97	14,366,430.98	880,510.89	39.528511480°N	107.694820952°W
2,445.00	10.99	284.75	2,427.39	54.66	-184.45	14,366,434.05	880,499.40	39.528518950°N	107.694861968°W
2,508.00	10.99	283.65	2,489.23	57.61	-196.10	14,366,437.00	880,487.76	39.528526076°N	107.694903526°W
2,571.00	10.99	282.86	2,551.08	60.36	-207.79	14,366,439.75	880,476.07	39.528532669°N	107.694945230°W
2,634.00	11.12	285.85	2,612.91	63.36	-219.48	14,366,442.75	880,464.37	39.528539926°N	107.694986992°W
2,697.00	11.21	286.16	2,674.71	66.72	-231.21	14,366,446.11	880,452.64	39.528548190°N	107.695028890°W
2,760.00	11.12	285.85	2,736.52	70.09	-242.94	14,366,449.47	880,440.92	39.528556454°N	107.695070787°W
2,823.00	10.99	284.97	2,798.35	73.30	-254.58	14,366,452.69	880,429.27	39.528564305°N	107.695112383°W
2,886.00	10.81	285.76	2,860.22	76.45	-266.07	14,366,455.84	880,417.78	39.528572018°N	107.695153412°W
2,949.00	10.68	285.63	2,922.11	79.63	-277.38	14,366,459.02	880,406.48	39.528579806°N	107.695193807°W
3,012.00	10.68	284.53	2,984.02	82.67	-288.65	14,366,462.06	880,395.20	39.528587212°N	107.695234064°W
3,075.00	11.38	285.94	3,045.86	85.84	-300.28	14,366,465.23	880,383.58	39.528594957°N	107.695275593°W
3,138.00	11.38	285.85	3,107.62	89.24	-312.23	14,366,468.63	880,371.62	39.528603314°N	107.695318307°W
3,201.00	11.21	285.85	3,169.40	92.61	-324.10	14,366,472.00	880,359.75	39.528611584°N	107.695360716°W
3,264.00	10.99	285.37	3,231.22	95.88	-335.78	14,366,475.27	880,348.07	39.528619578°N	107.695402444°W
3,327.00	10.99	285.85	3,293.06	99.11	-347.35	14,366,478.50	880,336.50	39.528627493°N	107.695443764°W
3,390.00	10.99	285.37	3,354.91	102.34	-358.92	14,366,481.73	880,324.93	39.528635408°N	107.695485085°W
3,453.00	10.81	283.56	3,416.77	105.32	-370.45	14,366,484.71	880,313.40	39.528642627°N	107.695526259°W
3,516.00	10.81	283.17	3,478.65	108.05	-381.95	14,366,487.44	880,301.91	39.528649175°N	107.695567274°W
3,579.00	11.38	286.64	3,540.48	111.17	-393.66	14,366,490.56	880,290.20	39.528656788°N	107.695609082°W
3,642.00	11.51	287.65	3,602.22	114.86	-405.60	14,366,494.25	880,278.25	39.528665917°N	107.695651788°W
3,705.00	11.29	286.24	3,663.98	118.49	-417.51	14,366,497.88	880,266.34	39.528674897°N	107.695694367°W
3,768.00	11.29	285.94	3,725.76	121.91	-429.36	14,366,501.30	880,254.49	39.528683301°N	107.695736712°W
3,831.00	10.90	284.97	3,787.59	125.14	-441.05	14,366,504.53	880,242.81	39.528691207°N	107.695778447°W
3,894.00	10.50	284.60	3,849.49	128.13	-452.36	14,366,507.52	880,231.50	39.528698468°N	107.695818829°W
3,957.00	10.81	287.26	3,911.40	131.33	-463.55	14,366,510.72	880,220.30	39.528706326°N	107.695858835°W
4,020.00	10.59	285.85	3,973.31	134.66	-474.76	14,366,514.05	880,209.09	39.528714551°N	107.695898904°W
4,083.00	10.59	283.96	4,035.24	137.64	-485.95	14,366,517.03	880,197.90	39.528721800°N	107.695938851°W
4,146.00	10.81	289.23	4,097.14	140.98	-497.15	14,366,520.37	880,186.71	39.528730049°N	107.695978871°W
4,209.00	10.81	290.16	4,159.02	144.96	-508.27	14,366,524.35	880,175.58	39.528740059°N	107.696018702°W
4,272.00	10.42	289.06	4,220.95	148.86	-519.20	14,366,528.25	880,164.65	39.528749850°N	107.696057839°W
4,335.00	9.18	287.56	4,283.03	152.24	-529.38	14,366,531.63	880,154.48	39.528758277°N	107.696094249°W
4,398.00	7.60	289.23	4,345.35	155.13	-538.10	14,366,534.51	880,145.75	39.528765483°N	107.696125466°W
4,461.00	5.49	292.84	4,407.94	157.67	-544.82	14,366,537.06	880,139.04	39.528771906°N	107.696149513°W
4,523.00	4.09	293.93	4,469.72	159.72	-549.57	14,366,539.10	880,134.28	39.528777134°N	107.696166574°W
4,586.00	2.02	296.66	4,532.62	161.13	-552.62	14,366,540.51	880,131.24	39.528780750°N	107.696177515°W
4,650.00	0.62	54.65	4,596.61	161.83	-553.34	14,366,541.22	880,130.51	39.528782629°N	107.696180161°W
4,712.00	2.59	109.14	4,658.59	161.57	-551.75	14,366,540.96	880,132.11	39.528782033°N	107.696174474°W
4,775.00	2.90	114.46	4,721.51	160.44	-548.95	14,366,539.83	880,134.90	39.528779172°N	107.696164452°W
4,838.00	2.02	126.55	4,784.46	159.12	-546.61	14,366,538.51	880,137.25	39.528775740°N	107.696156012°W
4,901.00	1.32	152.87	4,847.43	157.81	-545.38	14,366,537.20	880,138.47	39.528772255°N	107.696151541°W
4,964.00	0.62	178.05	4,910.42	156.83	-545.04	14,366,536.21	880,138.81	39.528769577°N	107.696150223°W
5,027.00	0.09	124.97	4,973.42	156.46	-544.99	14,366,535.84	880,138.86	39.528768569°N	107.696149999°W
5,090.00	0.22	94.07	5,036.42	156.42	-544.83	14,366,535.81	880,139.03	39.528768481°N	107.696149424°W

Survey Report - Geographic

Company:	Antero Resources	Local Co-ordinate Reference:	Well Gentry B14 (111424) - Slot B14
Project:	Gentry	TVD Reference:	KB @ 5648.00ft (Original Well Elev)
Site:	Gentry B	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Well:	Gentry B14 (111424)	North Reference:	Grid
Wellbore:	Gentry B14	Survey Calculation Method:	Minimum Curvature
Design:	Gentry B14	Database:	EDM5000-New

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,153.00	0.40	77.06	5,099.42	156.46	-544.49	14,366,535.85	880,139.36	39.528768620°N	107.696148242°W
5,216.00	0.48	112.84	5,162.42	156.41	-544.04	14,366,535.80	880,139.82	39.528768511°N	107.696146615°W
5,278.00	1.01	144.74	5,224.41	155.86	-543.48	14,366,535.25	880,140.37	39.528767056°N	107.696144592°W
5,342.00	1.32	115.03	5,288.40	155.09	-542.49	14,366,534.48	880,141.37	39.528765019°N	107.696140990°W
5,405.00	1.32	93.85	5,351.38	154.73	-541.11	14,366,534.12	880,142.75	39.528764157°N	107.696136058°W
5,468.00	0.62	98.55	5,414.37	154.63	-540.04	14,366,534.02	880,143.81	39.528763971°N	107.696132289°W
5,531.00	0.31	76.14	5,477.37	154.62	-539.54	14,366,534.01	880,144.31	39.528763986°N	107.696130507°W
5,594.00	0.22	51.14	5,540.37	154.74	-539.28	14,366,534.13	880,144.57	39.528764327°N	107.696129600°W
5,657.00	0.31	63.75	5,603.37	154.89	-539.04	14,366,534.28	880,144.82	39.528764762°N	107.696128741°W
5,720.00	0.31	101.63	5,666.37	154.93	-538.72	14,366,534.32	880,145.14	39.528764901°N	107.696127612°W
5,784.00	0.22	20.33	5,730.37	155.01	-538.50	14,366,534.40	880,145.35	39.528765139°N	107.696126869°W
5,847.00	0.09	299.43	5,793.37	155.15	-538.50	14,366,534.54	880,145.35	39.528765517°N	107.696126887°W
5,910.00	0.40	111.74	5,856.37	155.09	-538.34	14,366,534.48	880,145.51	39.528765373°N	107.696126310°W
5,973.00	0.79	143.73	5,919.36	154.66	-537.88	14,366,534.05	880,145.97	39.528764227°N	107.696124631°W
6,036.00	0.40	154.76	5,982.36	154.11	-537.53	14,366,533.50	880,146.32	39.528762750°N	107.696123330°W
6,099.00	0.48	16.95	6,045.36	154.16	-537.36	14,366,533.55	880,146.49	39.528762910°N	107.696122731°W
6,162.00	0.40	14.27	6,108.36	154.63	-537.23	14,366,534.02	880,146.62	39.528764198°N	107.696122316°W
6,225.00	0.31	6.93	6,171.36	155.01	-537.15	14,366,534.40	880,146.70	39.528765253°N	107.696122091°W
6,288.00	0.48	358.36	6,234.35	155.45	-537.14	14,366,534.83	880,146.71	39.528766442°N	107.696122091°W
6,351.00	0.31	55.05	6,297.35	155.81	-537.01	14,366,535.20	880,146.84	39.528767445°N	107.696121662°W
6,414.00	0.48	164.56	6,360.35	155.65	-536.80	14,366,535.04	880,147.05	39.528767032°N	107.696120901°W
6,467.00	0.70	88.84	6,413.35	155.44	-536.42	14,366,534.83	880,147.44	39.528766494°N	107.696119523°W
6,539.00	1.10	101.85	6,485.34	155.31	-535.30	14,366,534.70	880,148.55	39.528766221°N	107.696115555°W
6,602.00	0.48	111.25	6,548.34	155.09	-534.46	14,366,534.48	880,149.39	39.528765687°N	107.696112564°W
6,665.00	0.31	354.84	6,611.33	155.16	-534.23	14,366,534.55	880,149.62	39.528765909°N	107.696111755°W
6,728.00	0.40	302.15	6,674.33	155.45	-534.43	14,366,534.84	880,149.42	39.528766679°N	107.696112499°W
6,791.00	0.40	247.44	6,737.33	155.48	-534.82	14,366,534.87	880,149.03	39.528766737°N	107.696113881°W
6,854.00	0.22	91.96	6,800.33	155.40	-534.91	14,366,534.78	880,148.95	39.528766487°N	107.696114163°W
6,917.00	0.40	149.66	6,863.33	155.20	-534.67	14,366,534.59	880,149.18	39.528765974°N	107.696113321°W
6,980.00	0.09	202.35	6,926.33	154.97	-534.58	14,366,534.35	880,149.27	39.528765336°N	107.696112969°W
7,043.00	0.00	171.55	6,989.33	154.92	-534.60	14,366,534.31	880,149.25	39.528765209°N	107.696113031°W
7,106.00	0.09	101.76	7,052.33	154.91	-534.55	14,366,534.30	880,149.30	39.528765185°N	107.696112858°W
7,169.00	0.48	122.77	7,115.33	154.76	-534.28	14,366,534.15	880,149.57	39.528764788°N	107.696111884°W
7,232.00	0.62	79.44	7,178.33	154.68	-533.72	14,366,534.07	880,150.13	39.528764613°N	107.696109903°W
7,295.00	0.70	100.14	7,241.32	154.67	-533.01	14,366,534.06	880,150.84	39.528764657°N	107.696107373°W
7,358.00	1.01	115.17	7,304.32	154.37	-532.13	14,366,533.76	880,151.72	39.528763896°N	107.696104218°W
7,421.00	0.40	30.44	7,367.31	154.32	-531.52	14,366,533.71	880,152.34	39.528763819°N	107.696102038°W
7,484.00	1.19	338.45	7,430.31	155.12	-531.64	14,366,534.51	880,152.21	39.528765998°N	107.696102580°W
7,547.00	1.10	336.85	7,493.29	156.28	-532.12	14,366,535.67	880,151.73	39.528769153°N	107.696104397°W
7,610.00	0.79	316.57	7,556.28	157.15	-532.66	14,366,536.54	880,151.20	39.528771499°N	107.696106389°W
7,672.00	0.62	280.84	7,618.28	157.53	-533.28	14,366,536.92	880,150.57	39.528772473°N	107.696108637°W
7,735.00	0.70	226.43	7,681.28	157.33	-533.90	14,366,536.72	880,149.96	39.528771870°N	107.696110789°W
7,798.00	0.79	219.05	7,744.27	156.72	-534.45	14,366,536.11	880,149.41	39.528770172°N	107.696112683°W
7,861.00	0.88	214.26	7,807.26	155.99	-534.99	14,366,535.38	880,148.86	39.528768105°N	107.696114538°W
7,892.00	0.88	212.86	7,838.26	155.59	-535.26	14,366,534.98	880,148.60	39.528766995°N	107.696115429°W
7,937.00	0.88	212.86	7,883.26	155.01	-535.63	14,366,534.40	880,148.22	39.528765372°N	107.696116695°W
Proj to TD at 7937 MD/7883 TVD									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,937.00	7,883.26	155.01	-535.63	Proj to TD at 7937 MD/7883 TVD

Survey Report - Geographic

Company:	Antero Resources	Local Co-ordinate Reference:	Well Gentry B14 (111424) - Slot B14
Project:	Gentry	TVD Reference:	KB @ 5648.00ft (Original Well Elev)
Site:	Gentry B	MD Reference:	KB @ 5648.00ft (Original Well Elev)
Well:	Gentry B14 (111424)	North Reference:	Grid
Wellbore:	Gentry B14	Survey Calculation Method:	Minimum Curvature
Design:	Gentry B14	Database:	EDM5000-New

Checked By:	_____	Approved By:	_____	Date:	_____
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