



Antero  
 Cross Unit 1H  
 Doddridge County WV  
 Northing: 14230768.96  
 Easting: 1736351.60  
 ST1 As Drilled

**WELL DETAILS:** Cross Unit 1H

+N/-S	+E/W	Northing	Ground Level	1332.0	Latitude	Longitude	Spot
0.0	0.0	14230768.96			1736351.6039° 11' 18.790 N60° 39' 41.113 W		

**PROJECT DETAILS:** Doddridge County WV

Geologic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1983 (NAD83 CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Zone 17N (49 W to 78 W)  
 System Datum: Mean Sea Level

**REFERENCE INFORMATION**

Contract No. 12-00000000000000000000  
 Draw No. 12-00000000000000000000  
 Revision No. 12-00000000000000000000  
 Date: 12/10/14  
 Author: J. Shaddid  
 Checker: J. Shaddid  
 Designer: J. Shaddid  
 Engineer: J. Shaddid

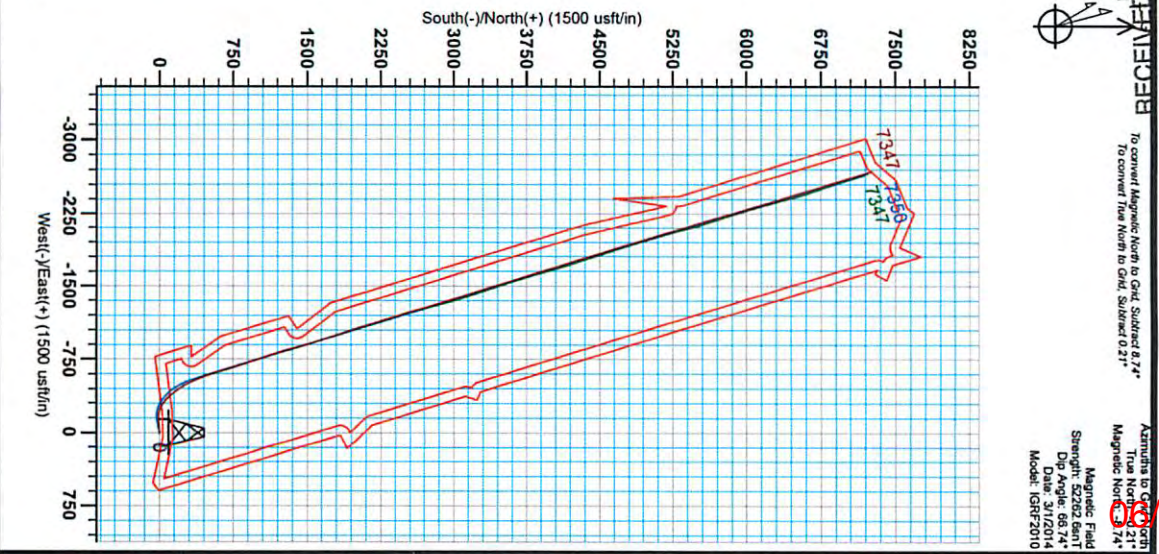
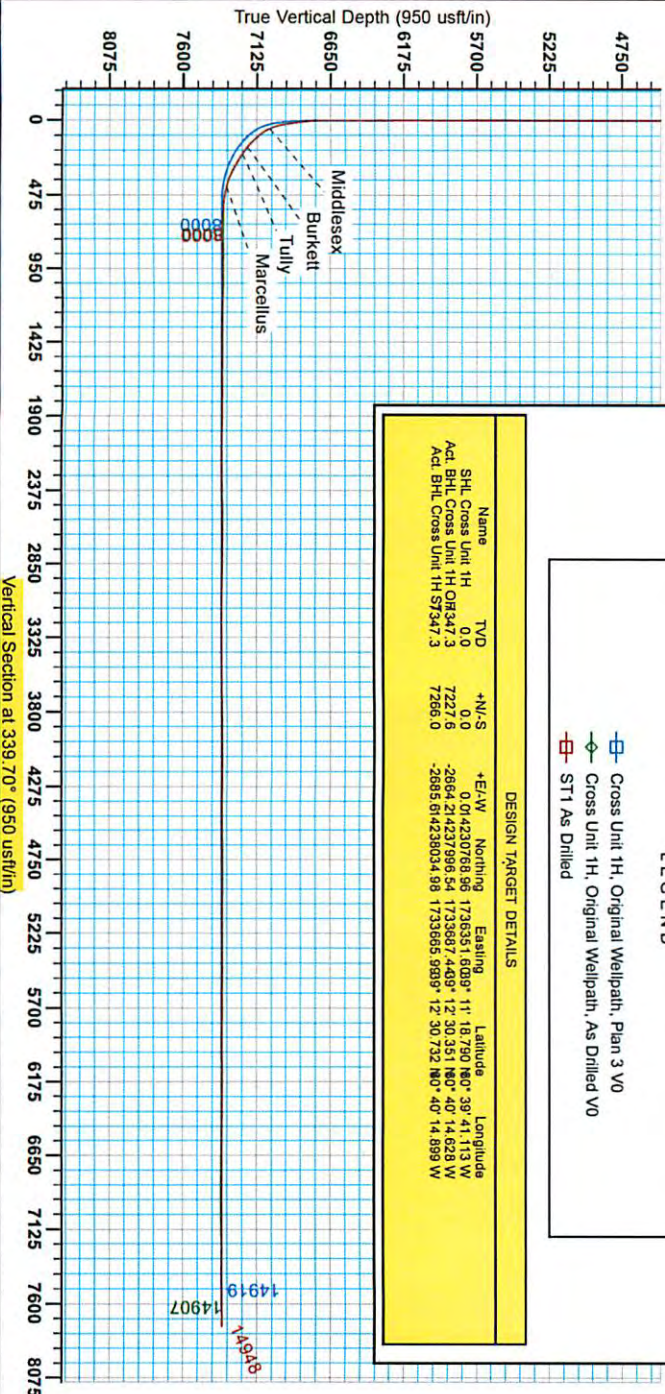
Jameson Shaddid  
 Scientific Drilling  
 421 South Eagle Lane  
 Oklahoma City Oklahoma  
 405-787-3663

**LEGEND**

- Cross Unit 1H, Original Wellpath, Plan 3 V0
- ◇ Cross Unit 1H, Original Wellpath, As Drilled V0
- ST1 As Drilled

**DESIGN TARGET DETAILS**

Name	TVD	+N/-S	+E/W	Northing	Easting	Latitude	Longitude
ShL Cross Unit 1H	0.0	0.0	0.0	14230768.96	1736351.6039	11° 18' 790 N	60° 39' 41.113 W
Act. BHL Cross Unit 1H OR347.3	7227.6			-2664.2142379968	1733687.4409	12° 30' 351 N	60° 40' 14.628 W
Act. BHL Cross Unit 1H ST347.3	7266.0			-2685.614238034	1733665.9839	12° 30' 732 N	60° 40' 14.899 W



**CAUTION**

To convert Magnetic North to Grid, Subtract 8.74°

To convert True North to Grid, Subtract 0.21°

Magnetic Field  
 Strength: 66.74  
 Dip Angle: 68.74  
 Date: 3/1/2014  
 Model: IGRF2010

Office of Oil and Gas  
 510781 YW  
 Department of  
 Environmental Protection  
 WV

05/2015



# Antero Resources

Doddridge County WV  
Stewart Pad  
Cross Unit 1H  
Sidetrack 1

Design: ST1 As Drilled

## EOW Completion Report

12 March, 2014

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06/05/2015

<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Cross Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Site:</b>	Stewart Pad	<b>MD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Well:</b>	Cross Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	ST1 As Drilled	<b>Database:</b>	Oklahoma District

<b>Project</b>	Doddridge County WV, McClellan District		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Zone 17N (84 W to 78 W)		

<b>Site</b>	Stewart Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,230,768.62 usft	<b>Latitude:</b>	39° 11' 18.788 N
<b>From:</b>	Map	<b>Easting:</b>	1,736,331.61 usft	<b>Longitude:</b>	80° 39' 41.367 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.21 °

<b>Well</b>	Cross Unit 1H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,230,768.96 usft	<b>Latitude:</b>	39° 11' 18.790 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,736,351.60 usft	<b>Longitude:</b>	80° 39' 41.113 W
<b>Position Uncertainty</b>	2.0 usft		<b>Wellhead Elevation:</b>	1,354.5 usft	<b>Ground Level:</b>	1,332.0 usft

<b>Wellbore</b>	Sidetrack 1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/1/2014	-8.52	66.74	52,263

<b>Design</b>	ST1 As Drilled				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	7,708.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	342.98	

<b>Survey Program</b>	Date 3/12/2014				
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
109.0	6,580.3	Survey #2 Def Gyro to KOP (Original Well)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,637.0	7,708.0	Survey #3 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	
7,708.0	14,907.9	Survey #1 ST1 MWD (Sidetrack 1)	MWD SDI	MWD - Standard ver 1.0.1	

<b>Survey</b>										
<b>MD (usft)</b>	<b>Inc (°)</b>	<b>Azi (azimuth) (°)</b>	<b>TVD (usft)</b>	<b>N/S (usft)</b>	<b>E/W (usft)</b>	<b>V. Sec (usft)</b>	<b>DLeg (°/100usft)</b>			
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
109.0	0.27	136.67	109.0	-0.2	0.2	-0.2	0.25			
209.5	0.25	140.55	209.5	-0.5	0.5	-0.6	0.03			
309.6	0.23	117.96	309.6	-0.8	0.8	-1.0	0.10			
410.0	0.19	104.83	410.0	-0.9	1.1	-1.2	0.06			
508.6	0.23	114.41	508.6	-1.1	1.5	-1.4	0.05			
608.8	0.16	160.92	608.8	-1.3		-1.7	0.17			
709.5	0.19	147.99	709.5	-1.5		-2.0	0.05			
808.5	0.18	158.67	808.4	-1.8		-2.3	0.04			
910.2	0.07	198.34	910.2	-2.0		-2.5	0.13			

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<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Cross Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Site:</b>	Stewart Pad	<b>MD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Well:</b>	Cross Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	ST1 As Drilled	<b>Database:</b>	Oklahoma District

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
1,010.1	0.07	194.16	1,010.1	-2.2	2.0	-2.6	0.01		
1,110.4	0.04	316.00	1,110.4	-2.2	1.9	-2.7	0.10		
1,209.2	0.05	332.39	1,209.2	-2.1	1.9	-2.6	0.02		
1,309.8	0.05	71.80	1,309.8	-2.1	1.9	-2.5	0.08		
1,409.0	0.04	49.81	1,409.0	-2.0	2.0	-2.5	0.02		
1,509.6	0.03	73.03	1,509.6	-2.0	2.0	-2.5	0.02		
1,609.3	0.12	97.00	1,609.3	-2.0	2.2	-2.6	0.09		
1,710.2	0.13	82.83	1,710.2	-2.0	2.4	-2.6	0.03		
1,809.7	0.14	91.46	1,809.7	-2.0	2.6	-2.7	0.02		
1,909.4	0.12	108.20	1,909.4	-2.0	2.8	-2.8	0.04		
2,009.7	0.13	117.35	2,009.7	-2.1	3.0	-2.9	0.02		
2,109.8	0.22	119.13	2,109.8	-2.3	3.3	-3.1	0.09		
2,210.0	0.22	103.67	2,210.0	-2.4	3.7	-3.4	0.06		
2,308.8	0.15	103.14	2,308.8	-2.5	4.0	-3.5	0.07		
2,410.2	0.13	114.41	2,410.2	-2.6	4.2	-3.7	0.03		
2,510.2	0.12	94.62	2,510.2	-2.6	4.4	-3.8	0.04		
2,609.6	0.07	299.17	2,609.6	-2.6	4.5	-3.8	0.19		
2,708.8	0.08	207.27	2,708.8	-2.6	4.4	-3.8	0.11		
2,810.1	0.20	282.63	2,810.1	-2.6	4.2	-3.8	0.19		
2,910.0	0.27	272.69	2,910.0	-2.6	3.8	-3.6	0.08		
3,009.5	0.17	263.97	3,009.5	-2.6	3.4	-3.5	0.11		
3,109.5	0.16	285.21	3,109.5	-2.6	3.1	-3.4	0.06		
3,209.6	0.16	269.49	3,209.6	-2.5	2.8	-3.3	0.04		
3,309.7	0.11	271.51	3,309.7	-2.5	2.6	-3.2	0.05		
3,409.3	0.09	281.70	3,409.3	-2.5	2.4	-3.1	0.03		
3,509.5	0.09	350.64	3,509.5	-2.4	2.3	-3.0	0.10		
3,610.3	0.09	357.39	3,610.2	-2.3	2.3	-2.9	0.01		
3,709.2	0.05	61.42	3,709.2	-2.2	2.4	-2.8	0.08		
3,810.0	0.04	53.50	3,810.0	-2.1	2.4	-2.7	0.01		
3,909.4	0.09	3.51	3,909.4	-2.0	2.5	-2.7	0.07		
4,009.7	0.20	18.34	4,009.7	-1.8	2.5	-2.4	0.12		
4,109.9	0.11	342.42	4,109.9	-1.5	2.5	-2.2	0.13		
4,209.4	0.11	338.16	4,209.4	-1.4	2.5	-2.0	0.01		
4,308.6	0.18	345.30	4,308.6	-1.1	2.4	-1.8	0.07		
4,410.1	0.26	281.20	4,410.0	-0.9	2.1	-1.5	0.24		
4,510.2	0.44	260.21	4,510.2	-0.9	1.5	-1.3	0.22		
4,609.3	0.63	254.92	4,609.3	-1.1	0.6	-1.3	0.20		
4,709.4	0.59	254.56	4,709.3	-1.4	-0.4	-1.2	0.04		
4,809.7	0.63	250.34	4,809.7	-1.7	-1.4	-1.3	0.06		
4,909.8	0.58	253.26	4,909.8	-2.1	-2.4	-1.3	0.06		
5,009.6	0.56	256.65	5,009.6	-2.3		-1.2	0.04		
5,109.8	0.39	260.37	5,109.7	-2.5		-1.2	0.17		
5,209.3	0.32	249.35	5,209.3	-2.7		-1.1	0.10		
5,308.6	0.30	259.15	5,308.6	-2.8			0.06		
5,410.1	0.33	258.72	5,410.1	-2.9			0.03		

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EOW Completion Report



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<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Site:</b>	Stewart Pad	<b>MD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Well:</b>	Cross Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	ST1 As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
5,509.8	0.36	265.61	5,509.8	-3.0	-6.4	-1.0	0.05	
5,609.6	0.34	259.00	5,609.6	-3.1	-7.0	-0.9	0.05	
5,709.1	0.35	282.63	5,709.0	-3.1	-7.6	-0.7	0.14	
5,809.9	0.33	269.46	5,809.9	-3.0	-8.2	-0.5	0.08	
5,909.4	0.27	276.32	5,909.4	-3.0	-8.7	-0.3	0.07	
6,008.9	0.22	294.86	6,008.8	-2.9	-9.1	-0.1	0.09	
6,109.8	0.18	7.95	6,109.7	-2.6	-9.3	0.2	0.24	
6,209.6	0.12	308.49	6,209.5	-2.4	-9.4	0.4	0.16	
6,309.6	0.15	6.79	6,309.5	-2.2	-9.4	0.6	0.13	
6,409.4	0.14	73.95	6,409.4	-2.1	-9.3	0.8	0.16	
6,509.7	0.11	230.39	6,509.7	-2.1	-9.2	0.7	0.24	
6,580.3	0.10	349.84	6,580.2	-2.1	-9.3	0.8	0.26	
6,637.0	0.00	351.28	6,636.9	-2.0	-9.3	0.8	0.18	
6,669.0	0.09	165.30	6,668.9	-2.0	-9.3	0.8	0.28	
6,700.0	3.29	262.10	6,699.9	-2.2	-10.2	0.9	10.65	
6,731.0	7.68	265.13	6,730.8	-2.5	-13.1	1.5	14.19	
6,763.0	12.27	268.97	6,762.3	-2.7	-18.7	2.9	14.49	
6,794.0	16.27	268.05	6,792.3	-2.9	-26.3	4.9	12.92	
6,825.0	19.86	267.20	6,821.8	-3.3	-35.9	7.3	11.61	
6,856.0	22.88	268.26	6,850.7	-3.8	-47.2	10.2	9.82	
6,886.0	26.47	266.73	6,877.9	-4.3	-59.7	13.3	12.15	
6,916.0	30.41	263.39	6,904.3	-5.6	-73.9	16.3	14.16	
6,947.0	34.21	263.13	6,930.5	-7.5	-90.4	19.2	12.27	
6,976.0	36.40	264.30	6,954.1	-9.4	-107.0	22.4	7.90	
7,007.0	38.78	265.32	6,978.7	-11.1	-125.9	26.3	7.94	
7,037.0	40.78	268.02	7,001.8	-12.2	-145.0	30.8	8.81	
7,067.0	42.94	273.08	7,024.1	-12.0	-165.0	36.9	13.36	
7,098.0	45.41	277.77	7,046.3	-9.9	-186.5	45.1	13.21	
7,129.0	47.24	283.34	7,067.8	-5.8	-208.5	55.5	14.27	
7,159.0	47.92	289.93	7,088.0	0.6	-229.7	67.8	16.37	
7,190.0	48.40	295.79	7,108.7	9.5	-251.0	82.6	14.17	
7,220.0	48.68	299.59	7,128.6	20.0	-270.9	98.4	9.54	
7,251.0	49.69	301.94	7,148.8	32.0	-291.1	115.8	6.60	
7,281.0	51.23	305.00	7,167.9	44.7	-310.3	133.6	9.39	
7,311.0	54.10	309.11	7,186.1	59.1	-329.4	152.9	14.49	
7,342.0	56.47	313.04	7,203.8	75.9	-348.6	174.6	12.92	
7,372.0	58.84	317.92	7,219.8	93.9	-366.3	197.0	15.85	
7,403.0	59.97	320.11	7,235.6	114.1	-383.8	221.4	7.09	
7,433.0	59.53	320.43	7,250.7	134.0	-401.4	245.3	1.73	
7,464.0	60.73	321.92	7,266.2	154.9	-419.2	270.3	5.69	
7,494.0	64.54	324.65	7,280.0	176.3	-433.1	295.4	15.05	
7,525.0	67.12	326.62	7,292.7	199.6	-449.1	322.4	10.14	
7,555.0	69.20	327.90	7,303.8	223.1	-464.1	349.2	7.98	
7,586.0	72.72	330.36	7,313.9	248.2	-479.2	377.6	13.61	

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<b>Well:</b>	Cross Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	ST1 As Drilled	<b>Database:</b>	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,616.0	76.68	332.56	7,321.8	273.6	-493.0	406.0	14.97
7,647.0	80.22	333.85	7,328.1	300.7	-506.7	435.9	12.13
7,678.0	82.23	334.54	7,332.8	328.3	-520.0	466.2	6.85
7,708.0	83.80	335.37	7,336.4	355.3	-532.6	495.6	5.91
7,760.0	86.17	339.24	7,341.0	403.1	-552.6	547.2	8.70
7,799.0	84.21	339.85	7,344.2	439.5	-566.2	586.0	5.26
7,830.0	85.69	339.99	7,347.0	468.5	-576.8	616.8	4.80
7,860.0	89.16	340.38	7,348.3	496.7	-586.9	646.7	11.64
7,890.0	91.58	340.38	7,348.1	525.0	-597.0	676.7	8.07
7,921.0	91.80	340.82	7,347.2	554.2	-607.3	707.7	1.59
7,952.0	91.98	340.94	7,346.2	583.5	-617.5	738.6	0.70
7,983.0	92.18	340.60	7,345.1	612.7	-627.7	769.6	1.27
8,015.0	90.57	342.14	7,344.3	643.0	-637.9	801.6	6.96
8,047.0	90.57	343.28	7,344.0	673.6	-647.4	833.6	3.56
8,078.0	90.22	344.34	7,343.8	703.3	-656.0	864.6	3.60
8,110.0	90.13	344.69	7,343.7	734.2	-664.6	896.5	1.13
8,142.0	90.04	344.51	7,343.6	765.0	-673.1	928.5	0.63
8,173.0	90.22	343.99	7,343.6	794.9	-681.5	959.5	1.78
8,205.0	90.22	343.46	7,343.4	825.6	-690.5	991.5	1.66
8,237.0	90.27	342.70	7,343.3	856.2	-699.8	1,023.5	2.38
8,268.0	90.31	342.75	7,343.1	885.8	-709.0	1,054.5	0.21
8,300.0	90.48	342.14	7,342.9	916.3	-718.6	1,086.5	1.98
8,332.0	89.87	342.05	7,342.8	946.8	-728.5	1,118.5	1.93
8,364.0	89.08	340.21	7,343.1	977.0	-738.8	1,150.5	6.26
8,395.0	89.13	340.23	7,343.6	1,006.2	-749.3	1,181.5	0.17
8,427.0	89.16	339.77	7,344.1	1,036.3	-760.2	1,213.4	1.44
8,458.0	88.96	340.72	7,344.6	1,065.4	-770.7	1,244.4	3.13
8,490.0	89.34	341.26	7,345.1	1,095.7	-781.1	1,276.3	2.06
8,522.0	89.52	342.23	7,345.4	1,126.1	-791.2	1,308.3	3.08
8,616.0	89.69	341.52	7,346.0	1,215.4	-820.4	1,402.3	0.78
8,711.0	90.66	343.46	7,345.7	1,306.0	-849.0	1,497.3	2.28
8,805.0	90.22	344.86	7,345.0	1,396.4	-874.6	1,591.3	1.56
8,900.0	90.22	345.39	7,344.6	1,488.2	-899.0	1,686.2	0.56
8,995.0	90.34	342.34	7,344.2	1,579.5	-925.4	1,781.2	3.21
9,024.0	90.48	342.93	7,344.0	1,607.2	-934.1	1,810.2	2.09
9,115.0	89.25	341.26	7,344.2	1,693.8	-962.1	1,901.2	2.28
9,207.0	89.08	341.96	7,345.5	1,781.0	-991.1	1,993.1	0.78
9,298.0	89.16	342.05	7,346.9	1,867.6	-1,019.2	2,084.1	0.13
9,390.0	89.25	343.37	7,348.2	1,955.4	-1,046.5	2,176.1	1.44
9,481.0	89.87	342.38	7,348.9	2,042.4	-1,073.3	2,267.1	1.28
9,573.0	90.92	341.61	7,348.3	2,129.9	-1,101.1	2,359.1	1.42
9,664.0	91.28	341.79	7,346.5	2,216.3	-1,130.0	2,450.0	0.44
9,755.0	90.92	341.35	7,344.8	2,302.6	-1,159.1	2,540.0	0.62
9,847.0	90.75	343.11	7,343.4	2,390.2	-1,187.2	2,630.0	1.92



EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Cross Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Site:</b>	Stewart Pad	<b>MD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Well:</b>	Cross Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	ST1 As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
9,899.8	89.29	343.73	7,343.4	2,440.8	-1,202.2	2,685.8	3.01	
10,000.0	89.29	343.73	7,344.7	2,536.9	-1,230.3	2,786.0	0.00	
10,100.0	89.29	343.73	7,345.9	2,632.9	-1,258.3	2,885.9	0.00	
10,184.5	89.29	343.73	7,346.9	2,714.0	-1,282.0	2,970.4	0.00	
10,200.0	89.60	343.38	7,347.1	2,728.9	-1,286.4	2,985.9	3.01	
10,225.9	90.11	342.80	7,347.2	2,753.7	-1,293.9	3,011.8	2.98	
10,300.0	90.11	342.80	7,347.0	2,824.5	-1,315.8	3,085.9	0.00	
10,400.0	90.11	342.80	7,346.8	2,920.0	-1,345.4	3,185.9	0.00	
10,500.0	90.11	342.80	7,346.6	3,015.5	-1,375.0	3,285.9	0.00	
10,600.0	90.11	342.80	7,346.4	3,111.1	-1,404.5	3,385.9	0.00	
10,700.0	90.11	342.80	7,346.2	3,206.6	-1,434.1	3,485.9	0.00	
10,800.0	90.11	342.80	7,346.1	3,302.1	-1,463.7	3,585.9	0.00	
10,900.0	90.11	342.80	7,345.9	3,397.6	-1,493.2	3,685.9	0.00	
11,000.0	90.11	342.80	7,345.7	3,493.2	-1,522.8	3,785.9	0.00	
11,100.0	90.11	342.80	7,345.5	3,588.7	-1,552.4	3,885.9	0.00	
11,200.0	90.11	342.80	7,345.3	3,684.2	-1,582.0	3,985.9	0.00	
11,300.0	90.11	342.80	7,345.1	3,779.8	-1,611.5	4,085.9	0.00	
11,400.0	90.11	342.80	7,344.9	3,875.3	-1,641.1	4,185.9	0.00	
11,500.0	90.11	342.80	7,344.7	3,970.8	-1,670.7	4,285.9	0.00	
11,600.0	90.11	342.80	7,344.5	4,066.3	-1,700.2	4,385.9	0.00	
11,700.0	90.11	342.80	7,344.3	4,161.9	-1,729.8	4,485.9	0.00	
11,800.0	90.11	342.80	7,344.1	4,257.4	-1,759.4	4,585.9	0.00	
11,900.0	90.11	342.80	7,343.9	4,352.9	-1,789.0	4,685.9	0.00	
12,000.0	90.11	342.80	7,343.8	4,448.4	-1,818.5	4,785.9	0.00	
12,100.0	90.11	342.80	7,343.6	4,544.0	-1,848.1	4,885.9	0.00	
12,200.0	90.11	342.80	7,343.4	4,639.5	-1,877.7	4,985.9	0.00	
12,300.0	90.11	342.80	7,343.2	4,735.0	-1,907.2	5,085.9	0.00	
12,407.3	90.11	342.80	7,343.0	4,837.5	-1,938.9	5,193.1	0.00	
12,419.2	89.90	342.91	7,343.0	4,848.9	-1,942.5	5,205.1	1.98	
12,500.0	89.90	342.91	7,343.1	4,926.1	-1,966.2	5,285.9	0.00	
12,600.0	89.90	342.91	7,343.3	5,021.7	-1,995.6	5,385.9	0.00	
12,700.0	89.90	342.91	7,343.5	5,117.3	-2,025.0	5,485.9	0.00	
12,800.0	89.90	342.91	7,343.6	5,212.9	-2,054.4	5,585.9	0.00	
12,900.0	89.90	342.91	7,343.8	5,308.5	-2,083.8	5,685.9	0.00	
13,000.0	89.90	342.91	7,344.0	5,404.1	-2,113.2	5,785.9	0.00	
13,100.0	89.90	342.91	7,344.2	5,499.7	-2,142.5	5,885.9	0.00	
13,200.0	89.90	342.91	7,344.3	5,595.2	-2,171.9	5,985.9	0.00	
13,300.0	89.90	342.91	7,344.5	5,690.8	-2,201.3	6,085.9	0.00	
13,400.0	89.90	342.91	7,344.7	5,786.4	-2,230.7	6,185.9	0.00	
13,500.0	89.90	342.91	7,344.9	5,882.0	-2,260.1	6,285.9	0.00	
13,600.0	89.90	342.91	7,345.0	5,977.6	-2,289.5	6,385.9	0.00	
13,700.0	89.90	342.91	7,345.2	6,073.2	-2,318.9	6,485.9	0.00	
13,800.0	89.90	342.91	7,345.4	6,168.7	-2,348.3	6,585.9	0.00	
13,900.0	89.90	342.91	7,345.6	6,264.3	-2,377.6	6,685.9	0.00	

<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Cross Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Site:</b>	Stewart Pad	<b>MD Reference:</b>	Cross Unit 1H GL 1332' + 22.5' RKB @ 1354.5usf
<b>Well:</b>	Cross Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	ST1 As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
14,000.0	89.90	342.91	7,345.7	6,359.9	-2,407.0	6,785.9	0.00	
14,100.0	89.90	342.91	7,345.9	6,455.5	-2,436.4	6,885.9	0.00	
14,200.0	89.90	342.91	7,346.1	6,551.1	-2,465.8	6,985.9	0.00	
14,300.0	89.90	342.91	7,346.3	6,646.7	-2,495.2	7,085.9	0.00	
14,400.0	89.90	342.91	7,346.4	6,742.2	-2,524.6	7,185.9	0.00	
14,500.0	89.90	342.91	7,346.6	6,837.8	-2,554.0	7,285.9	0.00	
14,600.0	89.90	342.91	7,346.8	6,933.4	-2,583.4	7,385.9	0.00	
14,700.0	89.90	342.91	7,347.0	7,029.0	-2,612.7	7,485.9	0.00	
14,800.0	89.90	342.91	7,347.1	7,124.6	-2,642.1	7,585.9	0.00	
14,907.9	89.90	342.91	7,347.3	7,227.7	-2,673.8	7,693.8	0.00	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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