Antero Resources

Antero Resources
Cross Unit 2H
Doddridge County WV
Northing: 14230769.12
Easting: 1736361.60
As Drilled

WELL DETAILS: Cross Unit 2H

Ground Level: 1332.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	14230769.12	1736361.60	39° 11' 18.791 N	80° 39' 40.986 W	

PROJECT DETAILS: Doddridge County WV

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level

REFERENCE INFORMATION

Coordinate (N/E) Reference: Well Cross Unit 2H, Grid North
Vertical (TVD) Reference: 1332' GL + 22.0' RKB @ 1354.0usft
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: 1332' GL + 22.0' RKB @ 1354.0usft
Calculation Method: Minimum Curvature

Scientific Drilling

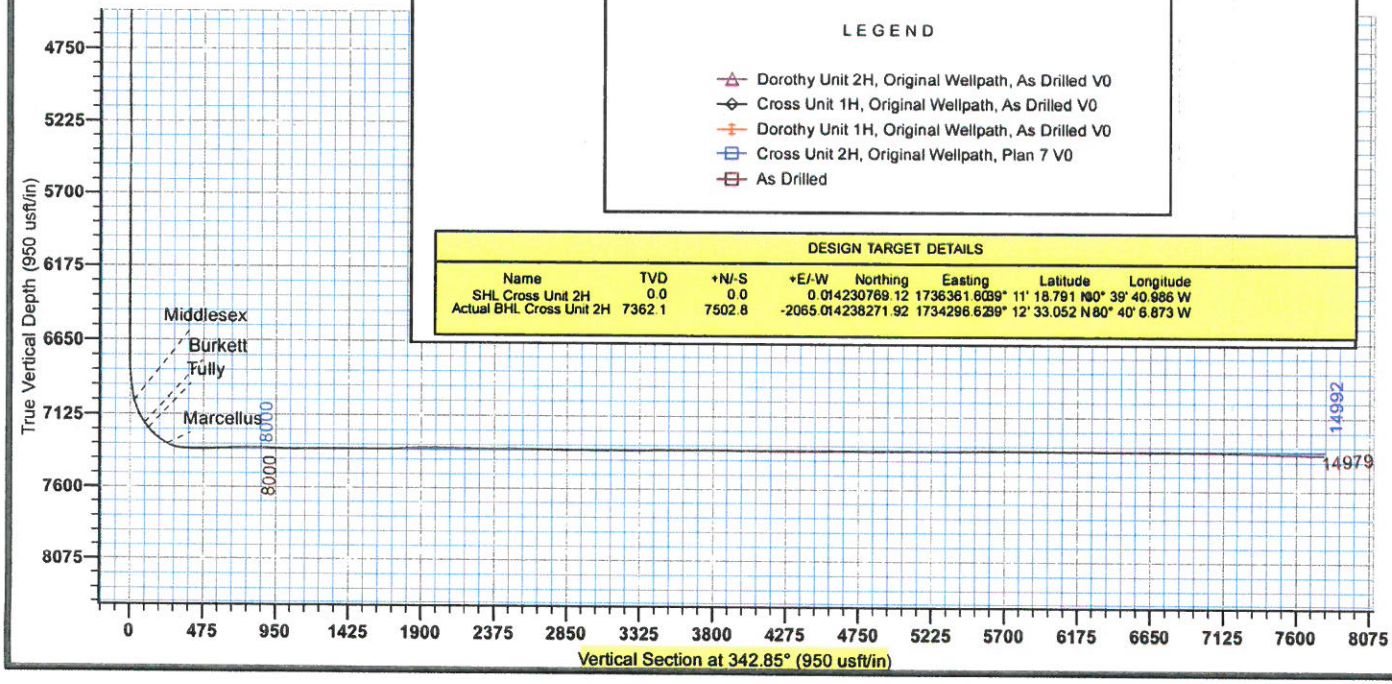
Genie Lightfoot
Scientific Drilling
421 South Eagle Lane
Oklahoma City Oklahoma
405-787-3663

LEGEND

- Dorothy Unit 2H, Original Wellpath, As Drilled V0
- Cross Unit 1H, Original Wellpath, As Drilled V0
- Dorothy Unit 1H, Original Wellpath, As Drilled V0
- Cross Unit 2H, Original Wellpath, Plan 7 V0
- As Drilled

DESIGN TARGET DETAILS

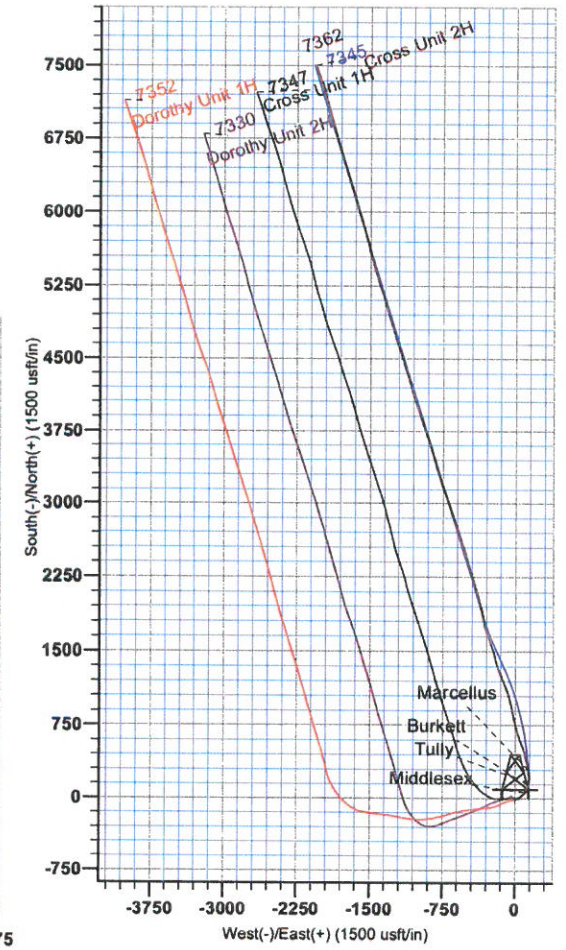
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Cross Unit 2H	0.0	0.0	0.0	14230769.12	1736361.60	39° 11' 18.791 N	80° 39' 40.986 W
Actual BHL Cross Unit 2H	7362.1	7502.8	-2065.0	14238271.92	1734296.62	39° 12' 33.052 N	80° 40' 6.873 W



To convert Magnetic North to Grid, Subtract 8.72°
To convert True North to Grid, Subtract 0.21°

Azimuths to Grid North
True North: -0.21°
Magnetic North: -8.72°

Magnetic Field
Strength: 52301.5nT
Dip Angle: 66.78°
Date: 11/5/2013
Model: IGRF2010



Antero Resources

Doddridge County WV
Stewart Pad
Cross Unit 2H
Original Wellpath

Design: As Drilled

EOW Completion Report

27 March, 2014

Scientific Drilling

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Cross Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Site:	Stewart Pad	**MD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Well:	Cross Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Project Doddridge County WV, McClellan District

Map System:	Universal Transverse Mercator (US Survey Fee	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 17N (84 W to 78 W)		

Site Stewart Pad

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

Well Cross Unit 2H, Marcellus

Well Position	**+N/-S**	0.0 usft	**Northing:**	14,230,769.12 usft	**Latitude:**	39° 11' 18.791 N
	+E/-W	0.0 usft	**Easting:**	1,736,361.60 usft	**Longitude:**	80° 39' 40.986 W
Position Uncertainty		2.0 usft	**Wellhead Elevation:**	1,345.0 usft	**Ground Level:**	1,332.0 usft

Wellbore Original Wellpath

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	11/5/2013	-8.51	66.78	52,302

Design As Drilled

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	342.85

Survey Program **Date** 3/27/2014

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
109.5	6,734.1	Survey #4 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
6,734.1	14,979.0	Survey #5 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

Survey

MD (usft)	**Inc (°)**	**Azi (azimuth) (°)**	**TVD (usft)**	**N/S (usft)**	**E/W (usft)**	**V. Sec (usft)**	**DLeg (°/100usft)**
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
109.5	0.38	83.23	109.5	0.0	0.4	-0.1	0.35
209.5	0.28	81.09	209.5	0.1	0.9	-0.2	0.10
309.5	0.21	83.16	309.5	0.2	1.4	-0.2	0.07
409.5	0.21	123.62	409.5	0.1	1.7	-0.4	0.15
509.5	0.17	83.59	509.5	0.0	2.0	-0.6	0.14
609.5	0.16	132.73	609.5	-0.1	2.2	-0.7	0.14
709.5	0.19	115.69	709.5	-0.2	2.5	-1.0	0.06
809.5	0.17	165.12	809.5	-0.4	2.7	-1.2	0.15
909.5	0.18	133.01	909.5	-0.7	2.8	-1.5	0.10
1,009.5	0.19	164.99	1,009.5	-1.0	3.0	-1.8	0.10

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Cross Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Site:	Stewart Pad	**MD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Well:	Cross Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,109.5	0.19	129.21	1,109.5	-1.2	3.2	-2.1	0.12
1,209.5	0.16	170.64	1,209.5	-1.5	3.3	-2.4	0.13
1,309.5	0.24	140.22	1,309.5	-1.8	3.5	-2.7	0.13
1,409.5	0.12	142.44	1,409.5	-2.0	3.7	-3.0	0.12
1,509.5	0.25	148.07	1,509.5	-2.3	3.8	-3.3	0.13
1,609.5	0.26	143.57	1,609.5	-2.6	4.1	-3.7	0.02
1,709.5	0.40	143.03	1,709.5	-3.1	4.4	-4.3	0.14
1,809.5	0.32	125.33	1,809.5	-3.6	4.9	-4.8	0.14
1,909.5	0.31	138.09	1,909.5	-3.9	5.3	-5.3	0.07
2,009.5	0.42	123.84	2,009.5	-4.3	5.8	-5.8	0.14
2,109.5	0.29	128.25	2,109.5	-4.7	6.3	-6.3	0.13
2,209.5	0.48	126.28	2,209.5	-5.1	6.8	-6.9	0.19
2,309.5	0.35	125.66	2,309.5	-5.5	7.4	-7.4	0.13
2,409.5	0.38	123.42	2,409.5	-5.9	7.9	-7.9	0.03
2,509.5	0.22	106.04	2,509.5	-6.1	8.4	-8.3	0.18
2,609.5	0.14	124.92	2,609.5	-6.2	8.7	-8.5	0.10
2,709.5	0.17	86.60	2,709.5	-6.3	8.9	-8.6	0.11
2,809.5	0.02	17.45	2,809.5	-6.3	9.1	-8.7	0.16
2,909.5	0.09	260.41	2,909.5	-6.3	9.0	-8.6	0.10
3,009.5	0.09	271.99	3,009.5	-6.3	8.8	-8.6	0.02
3,109.5	0.16	333.85	3,109.5	-6.1	8.7	-8.4	0.14
3,209.5	0.09	353.69	3,209.5	-5.9	8.6	-8.2	0.08
3,309.5	0.03	301.57	3,309.5	-5.8	8.6	-8.1	0.08
3,409.5	0.08	276.40	3,409.5	-5.8	8.5	-8.1	0.05
3,509.5	0.04	42.07	3,509.5	-5.8	8.5	-8.0	0.11
3,609.5	0.12	295.00	3,609.5	-5.7	8.4	-7.9	0.14
3,709.5	0.17	312.39	3,709.5	-5.6	8.2	-7.7	0.07
3,809.5	0.15	322.84	3,809.5	-5.4	8.0	-7.5	0.04
3,909.5	0.08	22.16	3,909.5	-5.2	7.9	-7.3	0.13
4,009.5	0.10	231.90	4,009.5	-5.2	7.9	-7.3	0.17
4,109.5	0.24	300.80	4,109.5	-5.1	7.7	-7.2	0.22
4,209.5	0.12	294.20	4,209.5	-5.0	7.4	-6.9	0.12
4,309.5	0.15	280.35	4,309.5	-4.9	7.2	-6.8	0.04
4,409.5	0.34	252.79	4,409.5	-5.0	6.7	-6.8	0.22
4,509.5	0.56	251.17	4,509.5	-5.2	6.0	-6.8	0.22
4,609.5	0.83	247.31	4,609.5	-5.7	4.9	-6.9	0.27
4,709.5	1.11	241.06	4,709.4	-6.4	3.4	-7.1	0.30
4,809.5	1.18	246.66	4,809.4	-7.3	1.6	-7.4	0.13
4,909.5	1.20	243.35	4,909.4	-8.2	-0.3	-7.7	0.07
5,009.5	0.55	281.51	5,009.4	-8.5	-1.7	-7.7	0.84
5,109.5	2.65	32.60	5,109.4	-6.5	-1.0	-5.9	2.89
5,209.5	4.63	63.43	5,209.2	-2.8	3.9	-3.8	2.72
5,309.5	5.61	73.47	5,308.8	0.4	12.2	-3.2	1.32
5,409.5	4.05	76.93	5,408.4	2.6	20.3	-3.5	1.59

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Cross Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Site:	Stewart Pad	**MD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Well:	Cross Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,509.5	3.01	79.72	5,508.2	3.9	26.3	-4.0	1.05
5,609.5	2.27	73.34	5,608.1	4.9	30.8	-4.4	0.80
5,709.5	1.44	80.72	5,708.1	5.7	34.0	-4.6	0.86
5,809.5	0.83	88.23	5,808.0	5.9	35.9	-4.9	0.63
5,909.5	0.57	100.41	5,908.0	5.9	37.1	-5.3	0.30
6,009.5	0.56	78.33	6,008.0	5.9	38.1	-5.6	0.22
6,109.5	0.40	83.44	6,108.0	6.0	38.9	-5.7	0.17
6,209.5	0.41	71.25	6,208.0	6.2	39.6	-5.8	0.09
6,309.5	0.26	128.87	6,308.0	6.1	40.1	-6.0	0.35
6,409.5	0.36	62.77	6,408.0	6.1	40.6	-6.1	0.35
6,509.5	0.15	80.29	6,508.0	6.3	41.0	-6.1	0.22
6,609.5	0.14	96.25	6,608.0	6.3	41.3	-6.1	0.04
6,709.5	0.16	59.87	6,708.0	6.4	41.5	-6.1	0.10
6,734.1	0.14	112.74	6,732.6	6.4	41.6	-6.2	0.55
6,758.0	0.62	65.27	6,756.5	6.4	41.7	-6.2	2.24
6,790.0	2.99	45.15	6,788.5	7.1	42.4	-5.7	7.55
6,821.0	5.80	46.29	6,819.4	8.7	44.2	-4.7	9.07
6,852.0	9.58	46.29	6,850.1	11.6	47.1	-2.8	12.19
6,882.0	12.75	47.26	6,879.5	15.6	51.4	-0.3	10.58
6,912.0	15.65	49.01	6,908.6	20.5	56.9	2.8	9.77
6,943.0	18.91	51.30	6,938.2	26.4	64.0	6.3	10.74
6,974.0	22.42	50.86	6,967.2	33.2	72.5	10.4	11.33
7,004.0	24.71	47.96	6,994.7	41.0	81.6	15.2	8.55
7,035.0	25.59	41.90	7,022.8	50.4	90.8	21.3	8.78
7,051.0	26.19	38.52	7,037.2	55.7	95.3	25.1	9.96
Middlesex							
7,066.0	26.82	35.48	7,050.6	61.1	99.4	29.0	9.96
7,096.0	28.14	28.89	7,077.2	72.8	106.7	38.1	11.04
7,126.0	30.25	22.91	7,103.4	85.9	113.1	48.8	11.99
7,156.0	32.92	19.91	7,129.0	100.5	118.8	61.0	10.32
7,186.0	35.53	17.73	7,153.8	116.5	124.2	74.7	9.61
7,217.0	38.60	15.44	7,178.5	134.4	129.6	90.2	10.86
7,222.0	39.15	14.95	7,182.4	137.5	130.4	92.9	12.56
Burkett							
7,247.0	41.91	12.65	7,201.4	153.2	134.2	106.8	12.56
7,265.0	43.96	10.44	7,214.6	165.2	136.7	117.6	14.12
Tully							
7,278.0	45.46	8.94	7,223.8	174.3	138.2	125.7	14.12
7,309.0	47.57	3.49	7,245.2	196.6	140.6	146.4	14.45
7,339.0	50.32	358.64	7,264.9	219.2	141.0	167.9	15.25
7,370.0	53.02	354.35	7,284.1	243.5	139.5	191.5	13.91
7,401.0	56.98	351.18	7,301.9	268.6	136.3	216.5	15.27
7,431.0	62.61	349.69	7,317.0	294.2	132.0	242.2	19.25
Marcellus							
7,462.0	69.94	349.78	7,329.4	322.1	127.0	270.3	23.65

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Project:	Doddridge County WV	**TVD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Site:	Stewart Pad	**MD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Well:	Cross Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,476.0	73.47	350.40	7,333.8	335.2	124.7	283.5	25.56
7,514.0	82.22	347.93	7,341.8	371.6	117.7	320.4	23.89
7,609.0	87.76	344.33	7,350.1	463.5	95.0	414.8	6.95
7,703.0	92.59	337.87	7,349.8	552.3	64.6	508.7	8.58
7,798.0	94.18	341.25	7,344.2	641.2	31.5	603.4	3.93
7,893.0	93.74	344.50	7,337.7	731.7	3.6	698.1	3.44
7,988.0	87.61	349.12	7,336.5	824.1	-18.1	792.8	8.08
8,082.0	87.67	347.93	7,340.4	916.2	-36.8	886.3	1.27
8,177.0	87.23	345.65	7,344.6	1,008.6	-58.5	981.0	2.44
8,268.0	88.90	339.67	7,347.7	1,095.3	-85.6	1,071.9	6.82
8,360.0	91.98	336.59	7,347.0	1,180.7	-119.8	1,163.5	4.73
8,452.0	92.59	337.65	7,343.3	1,265.4	-155.6	1,255.0	1.33
8,542.0	89.43	343.80	7,341.7	1,350.3	-185.3	1,344.9	7.68
8,634.0	89.13	343.49	7,342.9	1,438.6	-211.2	1,436.9	0.47
8,726.0	89.52	342.31	7,344.0	1,526.5	-238.2	1,528.8	1.35
8,817.0	89.08	340.28	7,345.1	1,612.7	-267.4	1,619.8	2.28
8,909.0	92.93	339.83	7,343.5	1,699.1	-298.8	1,711.7	4.21
9,000.0	95.06	347.67	7,337.1	1,786.2	-324.1	1,802.4	8.91
9,091.0	91.28	348.90	7,332.1	1,875.1	-342.6	1,892.8	4.37
9,183.0	88.90	346.96	7,332.0	1,965.1	-361.8	1,984.4	3.34
9,273.0	88.37	343.62	7,334.1	2,052.1	-384.7	2,074.3	3.76
9,367.0	88.99	343.71	7,336.3	2,142.3	-411.1	2,168.3	0.67
9,462.0	89.16	342.31	7,337.8	2,233.1	-438.9	2,263.2	1.48
9,557.0	90.13	343.10	7,338.4	2,323.8	-467.1	2,358.2	1.32
9,651.0	91.01	343.89	7,337.5	2,414.0	-493.8	2,452.2	1.26
9,746.0	88.37	342.57	7,338.0	2,504.9	-521.2	2,547.2	3.11
9,841.0	88.99	343.45	7,340.2	2,595.7	-549.0	2,642.2	1.13
9,935.0	87.76	340.90	7,342.8	2,685.2	-577.7	2,736.1	3.01
10,030.0	89.78	341.43	7,344.9	2,775.1	-608.4	2,831.1	2.20
10,125.0	89.50	340.11	7,345.5	2,864.8	-639.7	2,926.0	1.42
10,220.0	89.60	338.97	7,346.2	2,953.8	-672.9	3,020.8	1.20
10,314.0	90.22	340.11	7,346.4	3,041.8	-705.7	3,114.7	1.38
10,409.0	90.04	340.99	7,346.1	3,131.4	-737.4	3,209.6	0.95
10,504.0	90.48	342.88	7,345.7	3,221.7	-766.8	3,304.6	2.04
10,599.0	90.40	342.92	7,345.0	3,312.5	-794.8	3,399.6	0.09
10,694.0	90.57	343.27	7,344.2	3,403.4	-822.4	3,494.6	0.41
10,788.0	90.66	343.80	7,343.2	3,493.5	-849.0	3,588.6	0.57
10,883.0	89.43	341.95	7,343.1	3,584.3	-877.0	3,683.6	2.34
10,978.0	89.19	342.53	7,344.2	3,674.8	-906.0	3,778.5	0.66
11,073.0	90.75	342.57	7,344.3	3,765.4	-934.5	3,873.5	1.64
11,168.0	88.90	340.81	7,344.6	3,855.6	-964.3	3,968.5	2.69
11,263.0	88.72	340.55	7,346.5	3,945.2	-995.7	4,063.4	0.33
11,358.0	89.08	342.57	7,348.4	4,035.3	-1,025.8	4,158.4	2.16
11,452.0	90.22	343.45	7,348.9	4,125.2	-1,053.2	4,252.4	1.53

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Cross Unit 2H
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Site:	Stewart Pad	**MD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Well:	Cross Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
11,548.0	90.31	343.18	7,348.5	4,217.2	-1,080.8	4,348.4	0.30
11,642.0	90.40	343.18	7,347.9	4,307.2	-1,108.0	4,442.4	0.10
11,737.0	90.48	343.62	7,347.2	4,398.2	-1,135.1	4,537.4	0.47
11,832.0	91.01	344.24	7,346.0	4,489.5	-1,161.4	4,632.3	0.86
11,926.0	88.55	340.28	7,346.3	4,579.0	-1,190.1	4,726.3	4.96
12,021.0	89.60	341.87	7,347.8	4,668.8	-1,220.9	4,821.2	2.01
12,116.0	90.13	343.54	7,348.1	4,759.5	-1,249.1	4,916.2	1.84
12,211.0	91.36	343.45	7,346.8	4,850.6	-1,276.1	5,011.2	1.30
12,306.0	89.60	342.39	7,346.0	4,941.4	-1,304.0	5,106.2	2.16
12,401.0	90.04	343.01	7,346.3	5,032.1	-1,332.2	5,201.2	0.80
12,496.0	91.10	345.03	7,345.4	5,123.4	-1,358.4	5,296.2	2.40
12,591.0	88.72	340.46	7,345.5	5,214.1	-1,386.6	5,391.1	5.42
12,686.0	92.15	343.01	7,344.8	5,304.3	-1,416.3	5,486.1	4.50
12,781.0	91.54	343.54	7,341.8	5,395.2	-1,443.7	5,581.0	0.85
12,876.0	89.87	344.15	7,340.6	5,486.5	-1,470.1	5,676.0	1.87
12,971.0	90.31	345.21	7,340.4	5,578.1	-1,495.2	5,771.0	1.21
13,066.0	89.43	345.65	7,340.7	5,670.0	-1,519.1	5,865.9	1.04
13,161.0	89.43	345.73	7,341.6	5,762.1	-1,542.6	5,960.8	0.08
13,256.0	89.43	343.98	7,342.6	5,853.8	-1,567.4	6,055.7	1.84
13,351.0	89.96	344.33	7,343.1	5,945.2	-1,593.3	6,150.7	0.67
13,446.0	89.52	343.54	7,343.5	6,036.5	-1,619.6	6,245.6	0.95
13,540.0	88.93	343.16	7,344.8	6,126.5	-1,646.5	6,339.6	0.75
13,635.0	89.96	343.18	7,345.7	6,217.4	-1,674.0	6,434.6	1.08
13,729.0	89.87	341.95	7,345.8	6,307.1	-1,702.2	6,528.6	1.31
13,823.0	90.31	342.83	7,345.7	6,396.7	-1,730.6	6,622.6	1.05
13,918.0	90.22	343.10	7,345.2	6,487.5	-1,758.5	6,717.6	0.30
14,013.0	90.02	342.92	7,345.0	6,578.4	-1,786.2	6,812.6	0.28
14,107.0	88.90	342.74	7,345.9	6,668.2	-1,814.0	6,906.6	1.21
14,202.0	90.84	344.06	7,346.1	6,759.2	-1,841.1	7,001.6	2.47
14,297.0	89.08	344.50	7,346.2	6,850.7	-1,866.9	7,096.6	1.91
14,391.0	89.69	345.82	7,347.2	6,941.5	-1,890.9	7,190.5	1.55
14,487.0	87.85	343.71	7,349.3	7,034.1	-1,916.1	7,286.4	2.92
14,581.0	87.76	343.62	7,352.9	7,124.3	-1,942.6	7,380.3	0.14
14,677.0	88.11	342.83	7,356.3	7,216.1	-1,970.3	7,476.2	0.90
14,867.0	89.08	340.99	7,361.0	7,396.7	-2,029.2	7,666.2	1.09
14,919.0	89.87	342.31	7,361.5	7,446.0	-2,045.6	7,718.1	2.96
14,979.0	89.00	340.00	7,362.1	7,502.8	-2,065.0	7,778.1	4.11

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Cross Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Site:	Stewart Pad	**MD Reference:**	1332' GL + 22.5' RKB @ 1354.5usft
Well:	Cross Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
7,051.0	7,037.2	55.7	95.3	Middlesex
7,222.0	7,182.4	137.5	130.4	Burkett
7,265.0	7,214.6	165.2	136.7	Tully
7,431.0	7,317.0	294.2	132.0	Marcellus

Checked By: _____ Approved By: _____ Date: _____