



Antero Resources
 Vonda Unit 2H
 Doddridge County WV
 Northing: 14254788.95
 Easting: 1690498.12
 As Drilled

REFERENCE INFORMATION
 Co-ordinate (NET) Reference: Well Vonda Unit 2H, Grid North
 Vertical TVD Reference: Vonda Unit 2H, 1003' ± 19' RAB @ 1022' shut
 Measured Depth Reference: Vonda Unit 2H, 1003' ± 19' RAB @ 1022' shut
 Calculation Method: Minimum Curvature

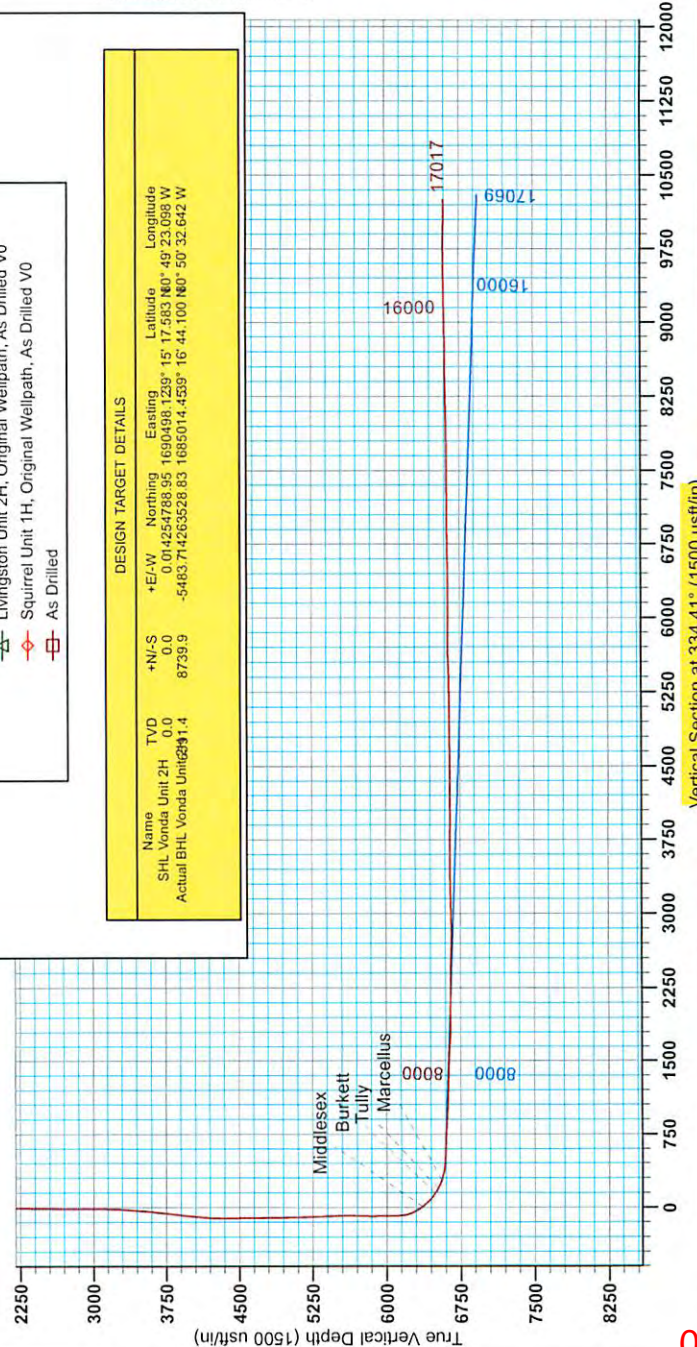
WELL DETAILS: Vonda Unit 2H
 Ground Level: 1003.0
 Easting: 1690498.12 30° 15' 17.563 N 80° 49' 23.068 W
 Northing: 14254788.95
 Longitude: 80° 49' 23.068 W
 Slot

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

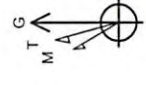
LEGEND

- Livingston Unit 1H, Original Wellpath, As Drilled V0
- Vonda Unit 2H, Original Wellpath, Plan 4 V0
- Livingston Unit 2H, Sidetrack 1, As Drilled ST1 V0
- Livingston Unit 2H, Original Wellpath, As Drilled V0
- Squirrel Unit 1H, Original Wellpath, As Drilled V0
- As Drilled

DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Vonda Unit 2H	0.0	0.0	0.01425478895	1690498.123015	17.583 N	80.4923068 W
Actual BHL Vonda Unit 2H	8739.9		-5483.71426352883	1695014.453916	44.100 N	50.32642 W
TVD	0.0					

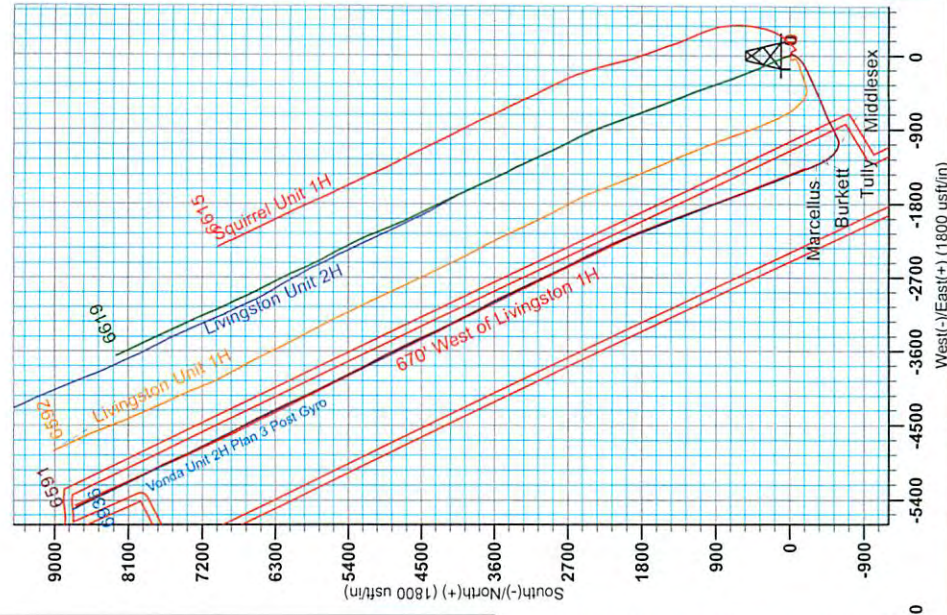


Vertical Section at 334.41° (1500 usft/in)



To convert Magnetic North to Grid, Subtract 8.53°
 To convert True North to Grid, Subtract 0.11°

Magnetic Field
 Strength: 52351 Bst
 Dip Angle: 66.84°
 Date: 11/20/2013
 Model: IGRF2010



West(+)/East(-) (1800 usft/in)

06/05/2015

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 Environmental Protection



Antero Resources

Doddridge County WV
Squirrel/Livingston/Vonda Pad
Vonda Unit 2H
Original Wellpath

Design: As Drilled

EOW Completion Report

19 February, 2014

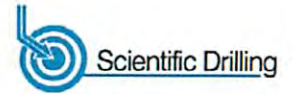
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WV Department of
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06/05/2015



Company:	Antero Resources	Local Co-ordinate Reference:	Well Vonda Unit 2H
Project:	Doddridge County WV	TVD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Site:	Squirrel/Livingston/Vonda Pad	MD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Well:	Vonda 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	Squirrel/Livingston/Vonda Pad				
Site Position:		Northing:	14,254,779.42 usft	Latitude:	39° 15' 17.488 N
From:	Map	Easting:	1,690,526.27 usft	Longitude:	80° 49' 22.740 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.11 °

Well	Vonda Unit 2H					
Well Position	+N/-S	0.0 usft	Northing:	14,254,788.95 usft	Latitude:	39° 15' 17.583 N
	+E/-W	0.0 usft	Easting:	1,690,498.12 usft	Longitude:	80° 49' 23.098 W
Position Uncertainty	2.0 usft		Wellhead Elevation:	1,022.0 usft	Ground Level:	1,003.0 usft

Wellbore	Original Wellpath
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/20/2013	-8.41	66.84	52,352

Design	As Drilled
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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	334.41

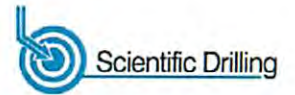
Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	2/19/2014	100.0	6,261.0	Survey #4 Def Gyro to KOP (Original Well	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
		6,295.0	17,017.0	Survey #5 MWD (Original Wellpath)	MWD SDI	MWD - Standard ver 1.0.1

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
100.0	0.90	347.07	100.0	0.8	-0.2	0.8	0.90
200.0	0.24	4.72	200.0	1.7	-0.3	1.7	0.68
300.0	0.36	18.16	300.0	2.2	-0.2	2.1	0.14
400.0	0.34	55.14	400.0	2.7	0.1	2.4	0.22
500.0	0.31	71.79	500.0	3.0	0.6	2.4	0.10
600.0	0.26	86.13	600.0	3.1	1.1	2.3	0.09
700.0	0.22	99.97	700.0	3.1	1.5	2.1	0.07
800.0	0.40	95.70	800.0	3.0	2.7	1.8	0.18
900.0	0.31	98.85	900.0	2.9	2.7	1.5	0.09
1,000.0	0.54	91.89	1,000.0	2.8		1.1	0.24

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EOW Completion Report



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Project:	Doddridge County WV	TVD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Site:	Squirrel/Livingston/Vonda Pad	MD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Well:	Vonda 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)
1,100.0	0.37	75.77	1,100.0	2.9	4.2	0.8	0.21
1,200.0	0.41	79.19	1,200.0	3.1	4.9	0.7	0.05
1,300.0	0.47	102.18	1,300.0	3.0	5.6	0.3	0.18
1,400.0	0.61	110.20	1,400.0	2.8	6.5	-0.3	0.16
1,500.0	0.88	119.24	1,500.0	2.2	7.7	-1.3	0.29
1,600.0	0.88	118.63	1,599.9	1.5	9.0	-2.6	0.01
1,700.0	0.59	114.97	1,699.9	0.9	10.2	-3.6	0.29
1,800.0	0.66	121.85	1,799.9	0.4	11.1	-4.5	0.10
1,900.0	0.51	121.36	1,899.9	-0.2	12.0	-5.3	0.15
2,000.0	0.63	126.02	1,999.9	-0.7	12.8	-6.2	0.13
2,100.0	0.56	134.53	2,099.9	-1.4	13.6	-7.1	0.11
2,200.0	0.42	132.93	2,199.9	-2.0	14.2	-7.9	0.14
2,300.0	0.61	133.78	2,299.9	-2.6	14.9	-8.8	0.19
2,400.0	0.51	119.00	2,399.9	-3.2	15.7	-9.6	0.17
2,500.0	0.54	127.24	2,499.9	-3.7	16.4	-10.4	0.08
2,600.0	0.53	128.63	2,599.9	-4.3	17.2	-11.3	0.02
2,700.0	0.60	134.34	2,699.9	-4.9	17.9	-12.2	0.09
2,800.0	0.77	134.29	2,799.9	-5.8	18.7	-13.3	0.17
2,900.0	0.49	142.02	2,899.9	-6.6	19.5	-14.3	0.29
3,000.0	0.69	144.25	2,999.9	-7.4	20.1	-15.3	0.20
3,100.0	0.67	122.11	3,099.9	-8.2	21.0	-16.4	0.26
3,200.0	0.94	143.01	3,199.9	-9.2	21.9	-17.7	0.39
3,300.0	2.57	189.44	3,299.8	-12.0	22.1	-20.4	2.04
3,400.0	5.18	180.29	3,399.6	-18.7	21.7	-26.3	2.67
3,500.0	7.00	189.08	3,499.0	-29.3	20.7	-35.3	2.04
3,600.0	9.13	202.80	3,598.0	-42.6	16.7	-45.6	2.86
3,700.0	10.88	211.47	3,696.5	-58.0	8.7	-56.0	2.30
3,800.0	12.67	217.63	3,794.4	-74.7	-3.0	-66.1	2.18
3,900.0	15.75	217.51	3,891.3	-94.2	-17.9	-77.2	3.08
4,000.0	18.32	226.71	3,986.9	-115.7	-37.6	-88.1	3.72
4,100.0	22.33	231.58	4,080.7	-138.3	-64.0	-97.1	4.35
4,200.0	25.17	236.30	4,172.2	-161.9	-96.6	-104.3	3.42
4,300.0	26.32	244.23	4,262.3	-183.4	-134.2	-107.4	3.63
4,400.0	28.27	245.33	4,351.2	-202.9	-175.7	-107.1	2.01
4,500.0	27.65	242.78	4,439.5	-223.4	-217.9	-107.4	1.35
4,600.0	27.31	246.10	4,528.3	-243.3	-259.5	-107.4	1.57
4,700.0	26.96	243.34	4,617.2	-262.8	-300.7	-107.1	1.31
4,800.0	26.38	244.16	4,706.6	-282.6	-341.0	-107.6	0.69
4,900.0	28.63	247.58	4,795.3	-301.4	-383.1	-106.4	2.75
5,000.0	28.87	246.90	4,883.0	-320.1	-427.5	-104.0	0.41
5,100.0	28.52	247.09	4,970.7	-338.8	-471.7	-101.9	0.36
5,200.0	26.71	246.37	5,059.3	-357.1	-515.9	-100.0	1.84
5,300.0	27.47	244.26	5,148.3	-376.1	-560.1	-99.3	1.22
5,400.0	28.40	249.52	5,236.7	-394.5	-598.7	-97.2	2.63

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5,500.0	29.74	250.75	5,324.1	-411.0	-644.4	-92.3	1.47	
5,600.0	28.95	248.86	5,411.3	-427.9	-690.4	-87.7	1.22	
5,700.0	28.64	246.60	5,498.9	-446.1	-734.9	-84.9	1.13	
5,800.0	27.60	244.48	5,587.1	-465.6	-777.8	-84.0	1.44	
5,900.0	27.21	241.91	5,675.9	-486.4	-818.9	-85.0	1.25	
6,000.0	26.58	240.47	5,765.1	-508.2	-858.6	-87.5	0.91	
6,100.0	26.72	244.74	5,854.4	-528.8	-898.4	-88.9	1.92	
6,200.0	27.43	246.48	5,943.5	-547.6	-939.8	-87.9	1.06	
6,261.0	27.72	246.47	5,997.6	-558.9	-965.7	-86.9	0.48	
6,295.0	27.52	246.00	6,027.7	-565.2	-980.1	-86.4	0.87	
6,340.0	27.44	244.07	6,067.6	-574.0	-999.0	-86.2	1.99	
6,385.0	27.61	244.95	6,107.5	-582.9	-1,017.7	-86.2	0.98	
6,430.0	27.79	256.46	6,147.4	-589.8	-1,037.4	-83.9	11.88	
6,474.0	29.63	268.94	6,186.0	-592.4	-1,058.3	-77.2	14.23	
6,519.0	31.92	280.10	6,224.7	-590.5	-1,081.1	-65.6	13.65	
6,564.0	33.50	289.16	6,262.6	-584.4	-1,104.6	-49.9	11.42	
6,609.0	35.44	296.71	6,299.7	-574.4	-1,128.0	-30.9	10.42	
6,654.0	37.99	303.22	6,335.8	-560.9	-1,151.2	-8.7	10.33	
6,685.0	40.06	308.22	6,359.9	-549.5	-1,167.0	8.4	12.15	
Middlesex								
6,699.0	41.06	310.34	6,370.5	-543.8	-1,174.1	16.7	12.15	
6,744.0	43.88	315.17	6,403.7	-523.1	-1,196.4	44.9	9.58	
6,789.0	48.10	318.86	6,435.0	-499.5	-1,218.4	75.8	11.08	
6,833.0	52.23	323.78	6,463.2	-473.1	-1,239.4	108.7	12.72	
6,877.0	56.71	328.61	6,488.7	-443.3	-1,259.3	144.1	13.53	
Burkett								
6,878.0	56.81	328.71	6,489.3	-442.6	-1,259.8	144.9	13.53	
6,923.0	60.32	331.17	6,512.8	-409.4	-1,279.0	183.2	9.09	
6,933.0	61.31	331.71	6,517.6	-401.7	-1,283.1	191.9	11.02	
Tully								
6,968.0	64.81	333.54	6,533.5	-374.0	-1,297.5	223.1	11.02	
7,013.0	70.52	335.39	6,550.6	-336.5	-1,315.4	264.7	13.25	
7,028.0	72.13	336.11	6,555.4	-323.5	-1,321.2	278.9	11.65	
Marcellus								
7,058.0	75.36	337.50	6,563.8	-297.0	-1,332.6	307.7	11.65	
7,073.0	76.24	338.46	6,567.5	-283.5	-1,338.0	322.2	8.54	
7,118.0	79.67	338.64	6,576.8	-242.6	-1,354.1	366.1	7.63	
7,163.0	81.25	338.46	6,584.3	-201.3	-1,370.3	410.3	3.53	
7,208.0	84.06	338.64	6,590.1	-159.8	-1,386.7	454.9	6.26	
7,253.0	88.72	339.17	6,592.9	-117.9	-1,402.8	499.6	10.42	
7,297.0	89.43	339.17	6,593.6	-76.7	-1,418.5	543.5	1.61	
7,342.0	89.52	338.99	6,594.0	-34.7	-1,434.5	588.3	0.45	
7,432.0	86.00	339.25	6,597.5	49.3	-1,449.5	677.9	3.92	
7,522.0	85.82	339.17	6,604.0	133.2	-1,464.5	767.4	0.22	
7,611.0	86.26	338.46	6,610.1	216.0	-1,530.5	855.9	0.94	

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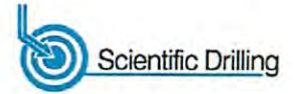
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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,701.0	87.14	337.67	6,615.3	299.4	-1,564.1	945.6	1.31
7,791.0	87.49	337.41	6,619.5	382.4	-1,598.4	1,035.3	0.48
7,881.0	87.23	338.37	6,623.6	465.7	-1,632.3	1,125.1	1.10
7,970.0	88.29	339.87	6,627.1	548.8	-1,664.0	1,213.7	2.06
8,060.0	89.43	340.66	6,628.9	633.5	-1,694.4	1,303.2	1.54
8,150.0	88.55	340.22	6,630.5	718.3	-1,724.5	1,392.7	1.09
8,239.0	87.23	340.31	6,633.8	802.0	-1,754.5	1,481.2	1.49
8,329.0	87.14	340.13	6,638.2	886.6	-1,784.9	1,570.6	0.22
8,419.0	87.23	340.22	6,642.6	971.2	-1,815.4	1,660.0	0.14
8,509.0	87.23	339.78	6,647.0	1,055.6	-1,846.2	1,749.5	0.49
8,598.0	90.48	339.34	6,648.7	1,139.0	-1,877.2	1,838.1	3.68
8,688.0	90.92	339.34	6,647.6	1,223.2	-1,909.0	1,927.8	0.49
8,778.0	89.60	339.43	6,647.2	1,307.5	-1,940.7	2,017.4	1.47
8,868.0	89.08	338.90	6,648.3	1,391.6	-1,972.7	2,107.1	0.82
8,957.0	89.34	338.99	6,649.5	1,474.6	-2,004.7	2,195.8	0.31
9,047.0	89.96	338.55	6,650.0	1,558.5	-2,037.3	2,285.6	0.84
9,137.0	90.04	337.76	6,650.0	1,642.0	-2,070.7	2,375.4	0.88
9,227.0	89.78	339.69	6,650.2	1,725.9	-2,103.4	2,465.1	2.16
9,316.0	85.91	338.20	6,653.5	1,808.9	-2,135.3	2,553.8	4.66
9,406.0	87.76	336.88	6,658.5	1,891.9	-2,169.7	2,643.5	2.52
9,496.0	89.08	336.26	6,661.0	1,974.5	-2,205.4	2,733.4	1.62
9,586.0	90.48	336.00	6,661.3	2,056.8	-2,241.9	2,823.3	1.58
9,675.0	90.84	336.35	6,660.3	2,138.2	-2,277.8	2,912.3	0.56
9,765.0	92.15	334.59	6,658.0	2,220.0	-2,315.2	3,002.2	2.44
9,855.0	92.24	333.98	6,654.5	2,301.0	-2,354.2	3,092.2	0.68
9,944.0	92.86	334.16	6,650.5	2,381.0	-2,393.1	3,181.1	0.73
10,034.0	90.22	332.66	6,648.1	2,461.4	-2,433.3	3,271.0	3.37
10,124.0	89.87	332.05	6,648.1	2,541.2	-2,475.1	3,361.0	0.78
10,214.0	90.48	332.31	6,647.8	2,620.8	-2,517.1	3,450.9	0.74
10,303.0	90.40	333.63	6,647.1	2,700.0	-2,557.5	3,539.9	1.49
10,393.0	90.40	334.33	6,646.5	2,780.9	-2,597.0	3,629.9	0.78
10,483.0	90.40	335.39	6,645.8	2,862.4	-2,635.2	3,719.8	1.18
10,573.0	89.52	334.77	6,645.9	2,944.0	-2,673.2	3,809.8	1.20
10,662.0	89.25	334.42	6,646.9	3,024.4	-2,711.3	3,898.8	0.50
10,757.0	89.87	333.98	6,647.6	3,109.9	-2,752.7	3,993.8	0.80
10,851.0	90.66	334.77	6,647.2	3,194.7	-2,793.3	4,087.8	1.19
10,945.0	89.43	334.51	6,647.1	3,279.6	-2,833.6	4,181.8	1.34
11,040.0	90.57	335.74	6,647.1	3,365.8	-2,873.6	4,276.8	1.77
11,134.0	89.87	335.21	6,646.7	3,451.3	-2,912.6	4,370.8	0.93
11,229.0	91.10	333.80	6,645.9	3,537.1	-2,953.5	4,465.8	1.97
11,323.0	90.04	331.69	6,645.0	3,620.6	-2,996.5	4,559.7	2.51
11,417.0	90.22	329.85	6,644.8	3,702.6	-3,042.4	4,653.5	1.97
11,511.0	90.66	331.96	6,644.0	3,784.8	-3,088.1	4,747.4	2.29
11,606.0	91.19	332.40	6,642.5	3,868.8	-3,132.4	4,842.3	0.73

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Company:	Antero Resources	Local Co-ordinate Reference:	Well Vonda Unit 2H
Project:	Doddridge County WV	TVD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Site:	Squirrel/Livingston/Vonda Pad	MD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Well:	Vonda Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

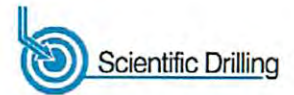
Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)
11,700.0	90.40	334.33	6,641.2	3,952.8	-3,174.6	4,936.2	2.22
11,794.0	90.31	332.84	6,640.6	4,037.0	-3,216.4	5,030.2	1.59
11,884.0	90.13	334.77	6,640.3	4,117.7	-3,256.1	5,120.2	2.15
11,974.0	90.04	333.45	6,640.1	4,198.7	-3,295.4	5,210.2	1.47
12,063.0	89.96	334.51	6,640.1	4,278.7	-3,334.5	5,299.2	1.19
12,153.0	91.28	336.44	6,639.2	4,360.5	-3,371.8	5,389.2	2.60
12,243.0	91.45	336.88	6,637.0	4,443.2	-3,407.5	5,479.1	0.52
12,333.0	91.45	335.47	6,634.8	4,525.5	-3,443.8	5,569.0	1.57
12,422.0	91.71	334.24	6,632.3	4,606.0	-3,481.6	5,658.0	1.41
12,512.0	89.78	333.80	6,631.1	4,686.9	-3,521.0	5,748.0	2.20
12,602.0	89.34	333.28	6,631.8	4,767.5	-3,561.1	5,838.0	0.76
12,691.0	89.52	334.77	6,632.7	4,847.5	-3,600.1	5,926.9	1.69
12,781.0	90.22	333.63	6,632.9	4,928.5	-3,639.3	6,016.9	1.49
12,871.0	90.48	331.52	6,632.4	5,008.4	-3,680.7	6,106.9	2.36
12,961.0	90.92	329.41	6,631.3	5,086.7	-3,725.1	6,196.7	2.39
13,048.0	90.40	332.57	6,630.3	5,162.7	-3,767.3	6,283.5	3.68
13,138.0	89.69	334.16	6,630.2	5,243.2	-3,807.6	6,373.5	1.93
13,227.0	89.78	333.98	6,630.6	5,323.2	-3,846.5	6,462.5	0.23
13,317.0	90.13	332.40	6,630.7	5,403.5	-3,887.1	6,552.4	1.80
13,407.0	91.19	335.12	6,629.6	5,484.2	-3,926.9	6,642.4	3.24
13,497.0	91.54	335.03	6,627.5	5,565.8	-3,964.8	6,732.4	0.40
13,587.0	90.31	333.28	6,626.0	5,646.8	-4,004.0	6,822.4	2.38
13,677.0	90.92	333.36	6,625.1	5,727.2	-4,044.5	6,912.4	0.68
13,766.0	90.22	334.33	6,624.2	5,807.1	-4,083.7	7,001.3	1.34
13,856.0	91.19	335.39	6,623.1	5,888.6	-4,121.9	7,091.3	1.60
13,946.0	90.04	335.39	6,622.1	5,970.4	-4,159.4	7,181.3	1.28
14,036.0	90.92	335.83	6,621.4	6,052.4	-4,196.6	7,271.3	1.09
14,126.0	91.54	336.44	6,619.4	6,134.7	-4,233.0	7,361.2	0.97
14,215.0	89.43	335.03	6,618.7	6,215.8	-4,269.5	7,450.2	2.85
14,305.0	89.69	334.51	6,619.4	6,297.2	-4,307.9	7,540.2	0.65
14,395.0	89.60	334.86	6,619.9	6,378.5	-4,346.4	7,630.2	0.40
14,485.0	89.16	333.63	6,620.9	6,459.6	-4,385.5	7,720.2	1.45
14,574.0	92.69	333.37	6,619.5	6,539.2	-4,425.2	7,809.1	3.98
14,664.0	91.10	333.10	6,616.5	6,619.5	-4,465.7	7,899.1	1.79
14,754.0	90.75	330.82	6,615.0	6,699.0	-4,508.0	7,989.0	2.56
14,844.0	90.40	330.82	6,614.1	6,777.5	-4,551.9	8,078.8	0.39
14,934.0	92.42	333.89	6,611.9	6,857.2	-4,593.6	8,168.7	4.08
15,023.0	91.28	334.16	6,609.0	6,937.2	-4,632.6	8,257.6	1.32
15,113.0	92.24	334.51	6,606.3	7,018.3	-4,671.5	8,347.6	1.14
15,203.0	91.36	334.68	6,603.4	7,099.5	-4,710.1	8,437.5	1.00
15,293.0	89.52	334.24	6,602.8	7,180.7	-4,748.9	8,527.5	2.10
15,383.0	89.34	334.59	6,603.7	7,261.9	-4,787.8	8,617.5	0.44
15,472.0	90.66	336.26	6,603.7	7,342.8	-4,824.8	8,706.5	2.39
15,562.0	90.04	335.56	6,603.1	7,425.0	-4,861.5	8,796.5	1.04
15,652.0	91.01	337.41	6,602.3	7,507.5	-4,897.4	8,886.4	2.32

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Company:	Antero Resources	Local Co-ordinate Reference:	Well Vonda Unit 2H
Project:	Doddridge County WV	TVD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Site:	Squirrel/Livingston/Vonda Pad	MD Reference:	Vonda Unit 2H GL 1003' + 19' RKB @ 1022.0usft
Well:	Vonda Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
15,742.0	90.66	335.74	6,601.0	7,590.1	-4,933.2	8,976.3	1.90
15,831.0	90.92	334.42	6,599.7	7,670.8	-4,970.7	9,065.3	1.51
15,921.0	90.40	333.10	6,598.7	7,751.5	-5,010.5	9,155.3	1.58
16,011.0	90.92	332.22	6,597.7	7,831.4	-5,051.8	9,245.3	1.14
16,100.0	90.22	333.89	6,596.8	7,910.8	-5,092.1	9,334.2	2.03
16,190.0	91.28	334.16	6,595.6	7,991.7	-5,131.6	9,424.2	1.22
16,280.0	90.04	334.42	6,594.6	8,072.7	-5,170.6	9,514.2	1.41
16,370.0	90.92	335.21	6,593.8	8,154.2	-5,208.9	9,604.2	1.31
16,459.0	89.96	334.86	6,593.1	8,234.9	-5,246.5	9,693.2	1.15
16,549.0	90.75	334.95	6,592.6	8,316.4	-5,284.6	9,783.2	0.88
16,639.0	90.84	334.86	6,591.3	8,397.9	-5,322.8	9,873.2	0.14
16,729.0	89.16	333.63	6,591.3	8,478.9	-5,361.9	9,963.2	2.31
16,818.0	89.53	334.64	6,592.3	8,559.0	-5,400.7	10,052.2	1.21
16,908.0	90.22	335.21	6,592.5	8,640.5	-5,438.9	10,142.2	0.99
16,964.0	90.75	335.91	6,592.1	8,691.5	-5,462.0	10,198.1	1.57
17,017.0	90.75	335.91	6,591.4	8,739.9	-5,483.7	10,251.1	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,685.0	6,359.9	-549.5	-1,167.0	Middlesex
6,877.0	6,488.7	-443.3	-1,259.3	Burkett
6,933.0	6,517.6	-401.7	-1,283.1	Tully
7,028.0	6,555.4	-323.5	-1,321.2	Marcellus

Checked By: _____ Approved By: _____ Date: _____

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