



Antero Resources  
 Squirrel Unit 1H  
 Doddridge County WV  
 Northing: 14254779.42  
 Easting: 1690526.27  
 As Drilled

**WELL DETAILS: Squirrel Unit 1H**  
 Ground Level: 1003.0  
 Longitude: 80° 49' 22.740 W  
 Slot  
 Easting: 1690526.27  
 Latitude: 39° 15' 17.488 N

**REFERENCE INFORMATION**  
 Co-ordinate (NET) Reference: Well Squirrel Unit 1H, Grid North  
 Vertical TVD Reference: Squirrel Unit 1H 1002 GL + 19 RAB @ 1022 Duft  
 Measured Depth Reference: Squirrel Unit 1H 1002 GL + 19 RAB @ 1022 Duft  
 Calculation Method: Normal Curvature  
 System Datum: Mean Sea Level

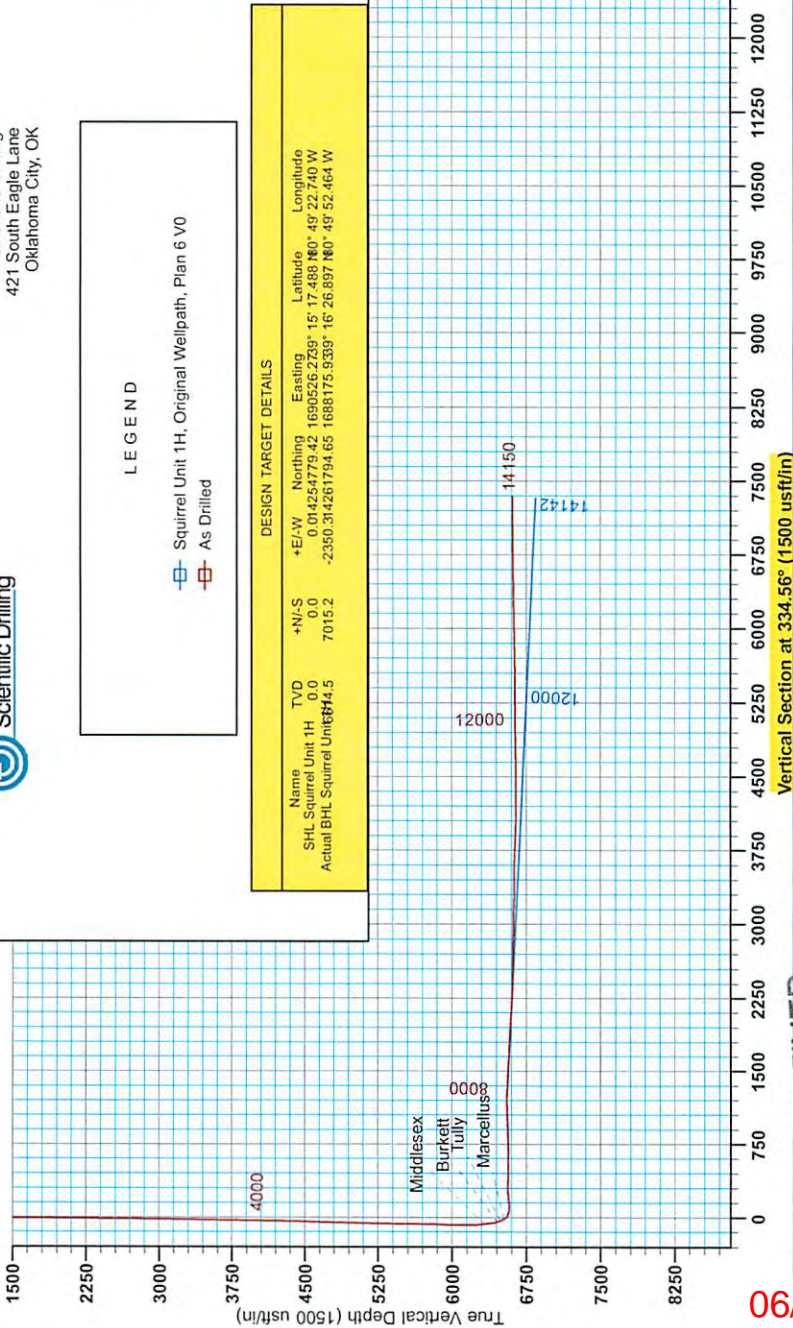
**PROJECT DETAILS: Doddridge County WV**  
 Geoid System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD83 (NAD83 CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Zone 17N (84 W to 78 W)

Genie Lightfoot  
 8:59, October 24 2013  
 Scientific Drilling  
 421 South Eagle Lane  
 Oklahoma City, OK



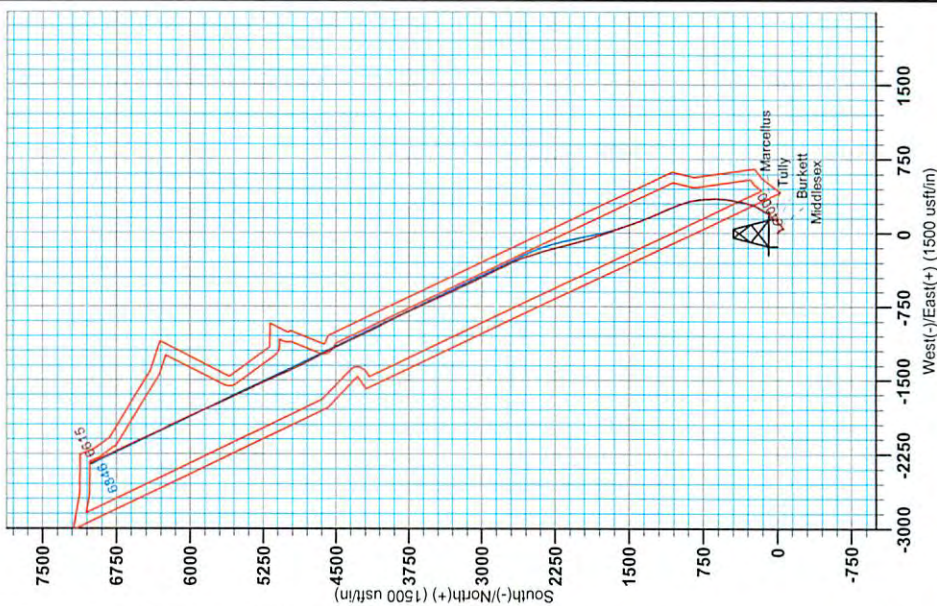
**LEGEND**  
 □ Squirrel Unit 1H, Original Wellpath, Plan 6 V0  
 □ As Drilled

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Squirrel Unit 1H	0.0	0.0	0.0	0.014254779 42	1690526 2709	39° 15' 17.488 N	80° 49' 22.740 W
Actual BHL Squirrel Unit 1H	4.5	7015.2	-2350.31	14261794 65	1688175 9339	39° 16' 26.897 N	80° 49' 52.464 W



To convert Magnetic North to Grid, Subtract 8.52°  
 To convert True North to Grid, Subtract 0.11°

Magnetic Field  
 Strength: 52376.0nT  
 Dip Angle: 66.88°  
 Date: 9/2/2013  
 Model: IGRF2010



06/05/2015

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 Natural Resources



# Antero

Doddridge County WV  
Squirrel/Livingston/Vonda Pad  
Squirrel Unit 1H  
Sidetrack

Design: Sidetrack

## EOW Completion Report

27 February, 2015

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06/05/2015





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

<b>Well</b>	Squirrel Unit 1H, Marcellus				
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,254,779.42 usft	
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,690,526.27 usft	
<b>Position Uncertainty</b>	2.0 usft	<b>Wellhead Elevation:</b>	1,022.0 usft	<b>Ground Level:</b>	1,003.0 usft

<b>Wellbore</b>	Sidetrack
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	2/27/2015	-8.45	66.79	52,157

<b>Design</b>	Sidetrack
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<b>Audit Notes:</b>	
<b>Version:</b>	1.0
<b>Phase:</b>	ACTUAL
<b>Tie On Depth:</b>	7,929.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	341.48

Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	2/27/2015	100.0	5,972.0	Survey #1 Def Gyro to KOP (Original Well)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
		6,033.0	7,929.0	Survey #2 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1
		7,929.0	14,150.0	Survey #1 (Sidetrack)	MWD SDI	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
	100.0	0.15	97.58	100.0	0.0	0.1	-0.1	0.15
	200.0	0.45	115.18	200.0	-0.2	0.6	-0.4	0.31
	300.0	0.51	114.61	300.0	-0.6	1.4	-1.0	0.06
	400.0	0.58	110.03	400.0	-0.9	2.3	-1.6	0.08
	500.0	0.55	104.45	500.0	-1.2	3.2	-2.2	0.06
	600.0	0.44	105.32	600.0	-1.4	4.0	-2.6	0.11
	700.0	0.47	108.43	700.0	-1.7	4.8	-3.1	0.04
	800.0	0.46	113.76	800.0	-1.9	5.5	-3.6	0.04
	900.0	0.45	118.32	900.0	-2.3	6.3	-4.2	0.04

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EOW Completion Report



<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Squirrel Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf
<b>Site:</b>	Squirrel/Livingston/Vonda Pad	<b>MD Reference:</b>	Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf
<b>Well:</b>	Squirrel Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sidetrack	<b>Database:</b>	Oklahoma District

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
1,000.0	0.49	108.35	1,000.0	-2.6	7.0	-4.7	0.09		
1,100.0	0.46	107.49	1,100.0	-2.9	7.8	-5.2	0.03		
1,200.0	0.50	117.57	1,200.0	-3.2	8.6	-5.8	0.09		
1,300.0	0.41	122.52	1,300.0	-3.6	9.3	-6.3	0.10		
1,400.0	0.35	133.21	1,400.0	-4.0	9.8	-6.9	0.09		
1,500.0	0.37	138.56	1,500.0	-4.4	10.2	-7.5	0.04		
1,600.0	0.32	139.31	1,600.0	-4.9	10.6	-8.0	0.05		
1,700.0	0.51	126.73	1,700.0	-5.4	11.2	-8.6	0.21		
1,800.0	0.53	118.02	1,799.9	-5.9	11.9	-9.3	0.08		
1,900.0	0.53	121.29	1,899.9	-6.3	12.7	-10.0	0.03		
2,000.0	0.22	120.87	1,999.9	-6.7	13.3	-10.5	0.31		
2,100.0	0.43	129.11	2,099.9	-7.0	13.7	-11.0	0.21		
2,200.0	0.59	124.45	2,199.9	-7.5	14.5	-11.7	0.17		
2,300.0	0.62	115.99	2,299.9	-8.0	15.4	-12.5	0.09		
2,400.0	0.47	118.83	2,399.9	-8.5	16.2	-13.2	0.15		
2,500.0	0.35	141.40	2,499.9	-8.9	16.8	-13.8	0.20		
2,600.0	0.62	131.35	2,599.9	-9.5	17.4	-14.5	0.28		
2,700.0	0.40	132.97	2,699.9	-10.1	18.0	-15.3	0.22		
2,800.0	0.49	129.68	2,799.9	-10.6	18.6	-16.0	0.09		
2,900.0	0.63	131.30	2,899.9	-11.3	19.3	-16.8	0.14		
3,000.0	0.58	131.38	2,999.9	-12.0	20.1	-17.7	0.05		
3,100.0	0.72	119.36	3,099.9	-12.6	21.1	-18.6	0.19		
3,200.0	0.78	130.99	3,199.9	-13.4	22.1	-19.7	0.16		
3,300.0	0.90	118.51	3,299.9	-14.2	23.3	-20.8	0.22		
3,400.0	0.84	121.44	3,399.9	-14.9	24.6	-22.0	0.07		
3,500.0	0.81	125.65	3,499.9	-15.7	25.8	-23.1	0.07		
3,600.0	0.77	125.80	3,599.8	-16.5	27.0	-24.2	0.04		
3,700.0	0.93	127.27	3,699.8	-17.4	28.2	-25.5	0.16		
3,800.0	0.86	137.92	3,799.8	-18.5	29.3	-26.8	0.18		
3,900.0	0.95	139.59	3,899.8	-19.6	30.3	-28.3	0.09		
4,000.0	0.99	148.79	3,999.8	-21.0	31.3	-29.9	0.16		
4,100.0	1.06	147.00	4,099.8	-22.5	32.3	-31.6	0.08		
4,200.0	1.01	154.29	4,199.8	-24.1	33.2	-33.4	0.14		
4,300.0	1.30	154.95	4,299.7	-25.9	34.0	-35.4	0.29		
4,400.0	1.20	157.89	4,399.7	-27.9	34.9	-37.6	0.12		
4,500.0	1.24	158.36	4,499.7	-29.9	35.7	-39.7	0.04		
4,600.0	1.27	163.26	4,599.7	-32.0	36.4	-41.9	0.11		
4,700.0	1.40	163.65	4,699.6	-34.2	37.1	-44.2	0.13		
4,800.0	1.32	162.66	4,799.6	-36.5	37.8	-46.6	0.08		
4,900.0	1.45	165.93	4,899.6	-38.8	38.4	-49.0	0.15		
5,000.0	1.62	169.21	4,999.5	-41.4	39.0	-51.7	0.19		
5,100.0	1.39	163.95	5,099.5	-44.0	39.6	-54.3	0.27		
5,200.0	1.29	164.43	5,199.5	-46.2	40.2	-56.6	0.10		
5,300.0	1.29	157.34	5,299.5	-48.3	41.0	-58.8	0.16		
5,400.0	1.23	155.70	5,399.4	-50.4	41.8	-61.0	0.07		

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Company: Antero  
Project: Doddridge County WV  
Site: Squirrel/Livingston/Vonda Pad  
Well: Squirrel Unit 1H  
Wellbore: Sidetrack  
Design: Sidetrack

Local Co-ordinate Reference: Well Squirrel Unit 1H  
TVD Reference: Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf  
MD Reference: Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Oklahoma District

WV Department of  
Environmental Protection

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,500.0	0.98	152.33	5,499.4	-52.1	42.7	-63.0	0.26
5,600.0	0.96	145.40	5,599.4	-53.5	43.5	-64.6	0.12
5,700.0	0.91	150.33	5,699.4	-54.9	44.4	-66.2	0.09
5,800.0	0.84	153.75	5,799.4	-56.3	45.1	-67.7	0.09
5,900.0	0.81	144.04	5,899.4	-57.5	45.9	-69.1	0.14
5,972.0	0.94	152.71	5,971.4	-58.4	46.4	-70.2	0.26
6,033.0	0.73	149.11	6,032.4	-59.2	46.9	-71.0	0.35
6,123.0	0.74	148.31	6,122.3	-60.2	47.5	-72.2	0.02
6,167.0	0.69	127.10	6,166.3	-60.6	47.8	-72.7	0.61
6,212.0	6.19	56.89	6,211.3	-59.4	50.1	-72.3	13.31
6,257.0	12.90	49.04	6,255.6	-54.8	55.9	-69.7	15.15
6,302.0	18.23	46.81	6,298.9	-46.7	64.8	-64.9	11.92
6,347.0	22.95	46.77	6,341.1	-35.9	76.4	-58.3	10.49
6,392.0	27.79	47.65	6,381.7	-22.8	90.5	-50.4	10.79
6,437.0	32.89	47.34	6,420.5	-7.4	107.3	-41.1	11.34
6,481.0	38.96	45.60	6,456.1	10.4	126.0	-30.2	13.99
6,526.0	46.92	42.09	6,489.1	32.5	147.1	-15.9	18.46
6,571.0	54.69	38.76	6,517.5	59.1	169.7	2.1	18.19
6,616.0	63.02	35.56	6,540.7	89.7	192.9	23.8	19.48
6,661.0	70.87	32.33	6,558.4	124.1	215.9	49.1	18.65
6,706.0	78.60	29.11	6,570.2	161.4	238.1	77.4	18.51
6,751.0	86.51	27.05	6,576.0	200.7	259.1	108.0	18.15
6,784.0	90.17	23.95	6,577.0	230.5	273.3	131.7	14.53
6,808.0	90.22	20.14	6,576.9	252.7	282.3	150.0	15.88
6,853.0	91.91	13.44	6,576.1	295.8	295.3	186.7	15.35
6,898.0	94.26	12.14	6,573.6	339.6	305.2	225.0	5.97
6,943.0	94.88	12.05	6,570.1	383.4	314.6	263.6	1.39
6,988.0	93.12	11.08	6,566.9	427.4	323.6	302.5	4.46
7,032.0	92.42	10.82	6,564.8	470.6	331.9	340.7	1.70
7,077.0	89.52	7.22	6,564.0	515.0	339.0	380.6	10.27
7,122.0	87.88	3.54	6,565.0	559.8	343.2	421.7	8.95
7,167.0	87.76	1.33	6,566.8	604.7	345.1	463.7	4.91
7,211.0	89.77	359.37	6,567.7	648.7	345.4	505.4	6.38
7,256.0	90.40	357.02	6,567.6	693.7	344.0	548.5	5.41
7,301.0	89.08	354.65	6,567.8	738.5	340.7	592.0	6.03
7,346.0	88.81	353.33	6,568.7	783.3	336.0	636.0	2.99
7,391.0	88.99	352.10	6,569.5	827.9	330.3	680.1	2.76
7,436.0	89.43	348.06	6,570.2	872.2	322.5	724.6	9.03
7,480.0	91.71	344.45	6,569.7	915.0	312.1	768.4	9.70
7,525.0	91.28	342.25	6,568.5	958.0	299.2	813.4	4.98
7,615.0	89.96	337.33	6,567.6	1,042.5	268.1	903.3	5.66
7,705.0	92.95	336.89	6,565.3	1,125.4	233.1	993.0	3.36
7,795.0	92.86	336.72	6,560.7	1,208.0	197.7	1,082.6	0.21
7,884.0	92.42	335.66	6,556.6	1,289.3	161.8	1,171.1	1.29





EOW Completion Report

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Scientific Drilling

<b>Company:</b> Antero	<b>Local Co-ordinate Reference:</b> Well Squirrel Unit 1H
<b>Project:</b> Doddridge County WV	<b>TVD Reference:</b> Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf
<b>Site:</b> Squirrel/Livingston/Vonda Pad	<b>MD Reference:</b> Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf
<b>Well:</b> Squirrel Unit 1H	<b>North Reference:</b> Grid
<b>Wellbore:</b> Sidetrack	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Sidetrack	<b>Database:</b> Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,929.0	90.31	339.09	6,555.6	1,330.8	144.5	1,216.0	8.95
7,974.0	89.87	339.71	6,555.5	1,372.9	128.7	1,260.9	1.69
8,019.0	88.64	340.50	6,556.1	1,415.3	113.4	1,305.9	3.25
8,063.0	87.49	340.50	6,557.6	1,456.7	98.7	1,349.9	2.61
8,095.0	87.05	340.32	6,559.1	1,486.8	88.0	1,381.8	1.49
8,127.0	86.88	339.88	6,560.8	1,516.9	77.1	1,413.8	1.47
8,158.0	86.79	339.53	6,562.5	1,545.9	66.4	1,444.7	1.16
8,190.0	87.67	339.71	6,564.0	1,575.9	55.3	1,476.7	2.81
8,220.0	88.05	340.35	6,565.2	1,604.0	45.0	1,506.6	2.48
8,252.0	88.11	340.15	6,566.2	1,634.1	34.2	1,538.6	0.65
8,283.0	87.15	340.30	6,567.5	1,663.3	23.7	1,569.6	3.13
8,315.0	86.97	339.88	6,569.1	1,693.3	12.8	1,601.5	1.43
8,346.0	86.97	340.15	6,570.8	1,722.4	2.3	1,632.5	0.87
8,378.0	86.61	339.44	6,572.6	1,752.4	-8.8	1,664.4	2.48
8,410.0	86.71	338.96	6,574.4	1,782.3	-20.1	1,696.3	1.53
8,441.0	87.49	340.58	6,576.0	1,811.3	-30.8	1,727.3	5.79
8,473.0	87.58	341.38	6,577.4	1,841.5	-41.2	1,759.2	2.51
8,504.0	87.42	341.75	6,578.7	1,870.9	-51.0	1,790.2	1.30
8,536.0	86.88	342.78	6,580.3	1,901.4	-60.8	1,822.2	3.63
8,568.0	86.88	342.96	6,582.1	1,931.9	-70.2	1,854.1	0.56
8,599.0	87.21	343.92	6,583.7	1,961.6	-79.0	1,885.1	3.27
8,631.0	87.14	344.89	6,585.2	1,992.4	-87.6	1,917.0	3.04
8,662.0	87.41	345.24	6,586.7	2,022.3	-95.6	1,947.9	1.42
8,694.0	87.31	345.59	6,588.2	2,053.2	-103.6	1,979.8	1.14
8,725.0	86.70	345.24	6,589.8	2,083.2	-111.4	2,010.7	2.27
8,757.0	86.67	344.93	6,591.7	2,114.0	-119.6	2,042.5	0.97
8,789.0	86.88	345.51	6,593.5	2,144.9	-127.8	2,074.4	1.92
8,820.0	86.70	345.42	6,595.2	2,174.9	-135.6	2,105.3	0.65
8,883.0	86.95	345.32	6,598.7	2,235.8	-151.4	2,168.1	0.43
8,915.0	86.97	344.98	6,600.4	2,266.6	-159.6	2,199.9	1.06
8,978.0	87.32	344.80	6,603.5	2,327.4	-176.0	2,262.8	0.62
9,009.0	86.79	343.57	6,605.1	2,357.2	-184.5	2,293.7	4.32
9,072.0	86.70	342.25	6,608.7	2,417.3	-203.0	2,356.6	2.10
9,104.0	87.41	341.38	6,610.3	2,447.7	-212.9	2,388.5	3.51
9,167.0	88.90	341.55	6,612.4	2,507.4	-232.9	2,451.5	2.38
9,198.0	88.99	341.29	6,612.9	2,536.7	-242.8	2,482.5	0.89
9,243.0	88.72	339.62	6,613.8	2,579.1	-257.9	2,527.5	3.76
9,288.0	88.72	338.83	6,614.8	2,621.2	-273.8	2,572.4	1.76
9,333.0	88.99	336.45	6,615.7	2,662.8	-290.9	2,617.3	5.32
9,378.0	89.25	335.40	6,616.4	2,703.9	-309.3	2,662.1	2.40
9,423.0	89.43	334.78	6,617.0	2,744.7	-328.3	2,706.8	1.43
9,468.0	89.69	334.43	6,617.3	2,785.3	-347.6	2,751.5	0.97
9,512.0	89.43	333.45	6,617.6	2,824.9	-366.9	2,795.1	2.30
9,557.0	88.55	333.38	6,618.4	2,865.1	-387.0	2,839.6	1.96





EOW Completion Report

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MAY 26 2015  
WV Department of Environmental Protection

<b>Company:</b> Antero	<b>Local Co-ordinate Reference:</b> Well Squirrel Unit 1H
<b>Project:</b> Doddridge County WV	<b>TVD Reference:</b> Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf
<b>Site:</b> Squirrel/Livingston/Vonda Pad	<b>MD Reference:</b> Squirrel Unit 1H 1005' GL + 19' RKB @ 1022.0usf
<b>Well:</b> Squirrel Unit 1H	<b>North Reference:</b> Gnd
<b>Wellbore:</b> Sidetrack	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Sidetrack	<b>Database:</b> Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
9,602.0	88.79	333.63	6,619.5	2,905.4	-407.1	2,884.2	0.77
9,647.0	88.81	333.11	6,620.4	2,945.6	-427.2	2,928.7	1.16
9,692.0	88.37	333.38	6,621.5	2,985.8	-447.5	2,973.3	1.15
9,737.0	88.81	333.20	6,622.6	3,025.9	-467.7	3,017.8	1.06
9,782.0	89.73	333.95	6,623.2	3,066.2	-487.7	3,062.4	2.64
9,827.0	89.96	335.93	6,623.3	3,107.0	-506.8	3,107.1	4.43
9,871.0	89.69	335.93	6,623.5	3,147.2	-524.8	3,150.8	0.61
9,916.0	88.64	335.66	6,624.1	3,188.2	-543.2	3,195.6	2.41
9,961.0	87.93	334.96	6,625.5	3,229.1	-562.0	3,240.3	2.22
10,006.0	88.37	334.61	6,626.9	3,269.8	-581.1	3,285.0	1.25
10,051.0	88.81	334.52	6,628.0	3,310.4	-600.5	3,329.7	1.00
10,096.0	89.08	335.14	6,628.8	3,351.1	-619.6	3,374.4	1.50
10,141.0	89.16	334.96	6,629.5	3,391.9	-638.6	3,419.1	0.44
10,185.0	88.90	334.26	6,630.3	3,431.7	-657.4	3,462.7	1.70
10,230.0	89.16	334.78	6,631.0	3,472.3	-676.8	3,507.4	1.29
10,275.0	89.78	335.93	6,631.5	3,513.2	-695.6	3,552.2	2.90
10,320.0	89.69	335.84	6,631.7	3,554.2	-714.0	3,596.9	0.28
10,365.0	89.60	335.75	6,632.0	3,595.3	-732.4	3,641.7	0.28
10,410.0	89.69	336.01	6,632.2	3,636.4	-750.8	3,686.5	0.61
10,455.0	89.87	336.45	6,632.4	3,677.5	-768.9	3,731.3	1.06
10,499.0	88.72	335.93	6,632.9	3,717.8	-786.7	3,775.1	2.87
10,544.0	88.20	335.22	6,634.2	3,758.8	-805.3	3,819.9	1.96
10,589.0	87.05	333.47	6,636.0	3,799.3	-824.8	3,864.5	4.65
10,634.0	87.41	333.29	6,638.2	3,839.5	-844.9	3,909.0	0.89
10,679.0	88.11	333.82	6,640.0	3,879.7	-864.9	3,953.5	1.95
10,724.0	87.93	333.29	6,641.5	3,920.0	-884.9	3,998.1	1.24
10,769.0	87.92	333.03	6,643.1	3,960.1	-905.3	4,042.6	0.58
10,814.0	87.93	333.11	6,644.8	4,000.2	-925.6	4,087.0	0.18
10,858.0	87.93	333.11	6,646.4	4,039.4	-945.5	4,130.5	0.00
10,903.0	88.29	334.96	6,647.8	4,079.9	-965.2	4,175.1	4.19
10,948.0	88.99	334.26	6,648.9	4,120.5	-984.5	4,219.8	2.20
10,993.0	89.96	333.55	6,649.3	4,160.9	-1,004.3	4,264.4	2.67
11,038.0	89.69	332.41	6,649.5	4,201.0	-1,024.7	4,308.9	2.60
11,083.0	91.19	334.87	6,649.1	4,241.3	-1,044.7	4,353.5	6.40
11,128.0	92.55	336.39	6,647.6	4,282.3	-1,063.3	4,398.2	4.53
11,173.0	90.75	334.96	6,646.3	4,323.3	-1,081.8	4,443.0	5.11
11,217.0	89.78	335.05	6,646.1	4,363.1	-1,100.4	4,486.7	2.21
11,262.0	89.60	335.05	6,646.4	4,403.9	-1,119.4	4,531.4	0.40
11,307.0	89.78	333.73	6,646.6	4,444.5	-1,138.8	4,576.1	2.96
11,352.0	91.19	336.01	6,646.2	4,485.3	-1,157.9	4,620.8	5.96
11,397.0	91.01	335.31	6,645.4	4,526.2	-1,176.5	4,665.5	1.61
11,442.0	90.48	334.96	6,644.8	4,567.1	-1,195.4	4,710.2	1.41
11,487.0	90.13	333.55	6,644.6	4,607.6	-1,214.9	4,754.9	3.23
11,532.0	90.31	331.88	6,644.4	4,647.6	-1,235.6	4,799.4	3.73





EOW Completion Report

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Scientific Drilling

MAY 26 2015

Company: Antero  
Project: Doddridge County WV  
Site: Squirrel/Livingston/Vonda Pad  
Well: Squirrel Unit 1H  
Wellbore: Sidetrack  
Design: Sidetrack

Local Co-ordinate Reference: Well Squirrel Unit 1H  
TVD Reference: Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf  
MD Reference: Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Oklahoma District

WV Department of Environmental Protection

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
11,576.0	90.84	331.80	6,643.9	4,686.4	-1,256.3	4,842.7	1.22
11,621.0	90.75	331.97	6,643.3	4,726.1	-1,277.5	4,887.1	0.43
11,666.0	90.84	330.83	6,642.7	4,765.6	-1,299.1	4,931.4	2.54
11,711.0	90.31	332.06	6,642.2	4,805.1	-1,320.6	4,975.7	2.98
11,756.0	90.75	334.70	6,641.8	4,845.3	-1,340.7	5,020.2	5.95
11,801.0	91.36	334.70	6,641.0	4,886.0	-1,360.0	5,064.9	1.36
11,846.0	90.66	333.20	6,640.2	4,926.4	-1,379.7	5,109.5	3.68
11,891.0	90.04	333.64	6,639.9	4,966.7	-1,399.8	5,154.1	1.69
11,935.0	90.57	336.89	6,639.7	5,006.6	-1,418.3	5,197.8	7.48
11,980.0	90.48	337.68	6,639.3	5,048.1	-1,435.6	5,242.7	1.77
12,025.0	90.84	336.72	6,638.8	5,089.6	-1,453.1	5,287.6	2.28
12,070.0	90.92	336.10	6,638.1	5,130.8	-1,471.1	5,332.4	1.39
12,115.0	90.50	335.34	6,637.5	5,171.9	-1,489.6	5,377.2	1.93
12,160.0	90.04	335.14	6,637.3	5,212.7	-1,508.4	5,421.9	1.11
12,204.0	91.01	334.26	6,636.9	5,252.5	-1,527.2	5,465.6	2.98
12,249.0	90.75	334.87	6,636.2	5,293.1	-1,546.6	5,510.2	1.47
12,294.0	91.10	334.17	6,635.5	5,333.8	-1,565.9	5,554.9	1.74
12,339.0	90.40	335.22	6,634.9	5,374.4	-1,585.1	5,599.6	2.80
12,384.0	90.48	334.78	6,634.6	5,415.2	-1,604.2	5,644.3	0.99
12,429.0	91.01	334.08	6,634.0	5,455.8	-1,623.6	5,689.0	1.95
12,473.0	91.36	333.90	6,633.1	5,495.3	-1,642.9	5,732.6	0.89
12,518.0	89.87	335.31	6,632.6	5,536.0	-1,662.2	5,777.2	4.56
12,563.0	91.01	335.22	6,632.2	5,576.9	-1,681.0	5,822.0	2.54
12,608.0	91.10	334.08	6,631.4	5,617.5	-1,700.3	5,866.6	2.54
12,653.0	90.13	334.17	6,630.9	5,658.0	-1,719.9	5,911.3	2.16
12,698.0	91.36	338.65	6,630.3	5,699.2	-1,737.9	5,956.1	10.32
12,743.0	90.75	337.77	6,629.5	5,741.0	-1,754.6	6,001.0	2.38
12,788.0	90.04	337.07	6,629.2	5,782.5	-1,771.9	6,045.9	2.22
12,832.0	91.21	336.71	6,628.7	5,823.0	-1,789.1	6,089.7	2.78
12,877.0	90.84	335.49	6,627.9	5,864.1	-1,807.4	6,134.5	2.83
12,922.0	89.83	335.89	6,627.6	5,905.2	-1,825.9	6,179.3	2.41
12,967.0	90.22	335.29	6,627.6	5,946.1	-1,844.5	6,224.1	1.59
13,012.0	91.28	336.19	6,627.0	5,987.2	-1,863.0	6,268.8	3.09
13,057.0	91.28	336.01	6,626.0	6,028.3	-1,881.2	6,313.6	0.40
13,102.0	90.40	334.78	6,625.4	6,069.2	-1,899.9	6,358.4	3.36
13,146.0	89.87	333.72	6,625.3	6,108.8	-1,919.1	6,402.0	2.69
13,191.0	91.01	334.85	6,624.9	6,149.4	-1,938.6	6,446.7	3.57
13,236.0	90.84	334.17	6,624.2	6,190.0	-1,957.9	6,491.3	1.56
13,281.0	90.57	332.59	6,623.6	6,230.2	-1,978.1	6,535.9	3.56
13,326.0	89.96	333.64	6,623.4	6,270.3	-1,998.5	6,580.4	2.70
13,371.0	91.01	334.47	6,623.1	6,310.8	-2,018.1	6,625.0	2.97
13,416.0	91.54	335.49	6,622.1	6,351.6	-2,037.2	6,669.7	2.55
13,460.0	91.74	334.56	6,620.8	6,391.4	-2,055.7	6,713.4	2.16
13,505.0	91.98	335.05	6,619.3	6,432.1	-2,074.9	6,758.1	1.21





<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Squirrel Unit 1H
<b>Project:</b>	Doddridge County WV	<b>TVD Reference:</b>	Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf
<b>Site:</b>	Squirrel/Livingston/Vonda Pad	<b>MD Reference:</b>	Squirrel Unit 1H 1003' GL + 19' RKB @ 1022.0usf
<b>Well:</b>	Squirrel Unit 1H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sidetrack	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sidetrack	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
13,550.0	90.47	335.39	6,618.4	6,473.0	-2,093.7	6,802.8	3.44	
13,595.0	89.52	335.40	6,618.4	6,513.9	-2,112.5	6,847.6	2.11	
13,640.0	89.60	335.14	6,618.7	6,554.8	-2,131.3	6,892.3	0.60	
13,685.0	89.99	334.52	6,618.9	6,595.5	-2,150.4	6,937.0	1.63	
13,730.0	90.37	333.90	6,618.7	6,636.0	-2,170.0	6,981.6	1.62	
13,774.0	90.31	332.94	6,618.5	6,675.4	-2,189.7	7,025.2	2.19	
13,819.0	90.22	333.20	6,618.3	6,715.5	-2,210.1	7,069.7	0.61	
13,864.0	91.01	335.84	6,617.8	6,756.1	-2,229.4	7,114.4	6.12	
13,909.0	91.45	335.84	6,616.8	6,797.1	-2,247.9	7,159.1	0.98	
13,954.0	91.36	335.49	6,615.7	6,838.1	-2,266.4	7,203.9	0.80	
13,999.0	90.40	334.87	6,615.0	6,879.0	-2,285.3	7,248.6	2.54	
14,044.0	90.22	334.52	6,614.8	6,919.7	-2,304.5	7,293.3	0.87	
14,095.0	90.13	334.34	6,614.6	6,965.7	-2,326.5	7,343.9	0.39	
14,150.0	90.13	334.34	6,614.5	7,015.2	-2,350.3	7,398.5	0.00	

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

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