Antero Resources

Antero Resources
Swisher Unit 1H
Doddridge County WV
Northing: 14238707.44
Easting: 1734919.21
As Drilled

WELL DETAILS: Swisher Unit 1H

Ground Level: 976.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	14238707.44	1734919.21	39° 12' 37.336 N	80° 39' 58.941 W	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Swisher Unit 1H, Grid North
Vertical (TVD) Reference: Swisher 1H 976 GL + 24 KB @ 1000.0usft
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: Swisher 1H 976 GL + 24 KB @ 1000.0usft
Calculation Method: Minimum Curvature

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

Scientific Drilling

Geie Lightfoot
10:51, December 09 2013

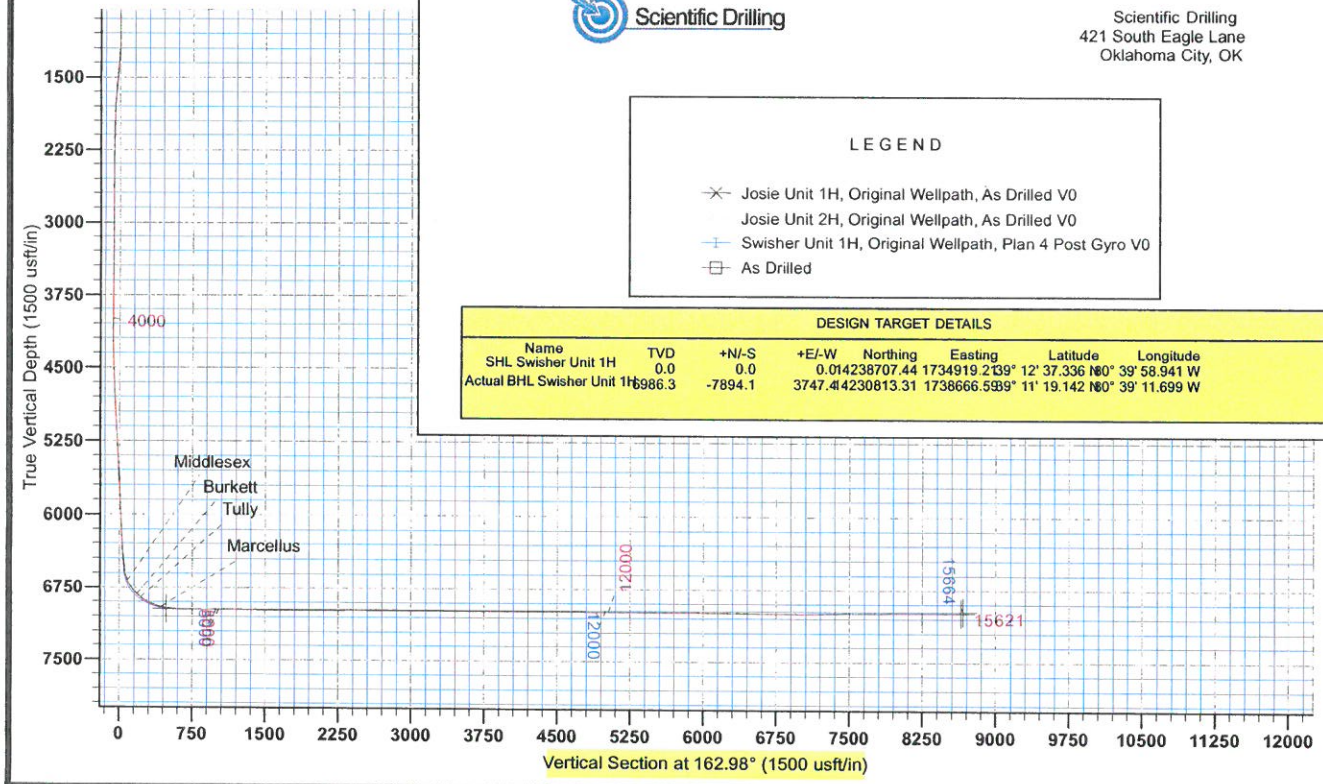
Scientific Drilling
421 South Eagle Lane
Oklahoma City, OK

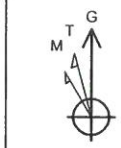
LEGEND

- Josie Unit 1H, Original Wellpath, As Drilled V0
- Josie Unit 2H, Original Wellpath, As Drilled V0
- Swisher Unit 1H, Original Wellpath, Plan 4 Post Gyro V0
- As Drilled

DESIGN TARGET DETAILS

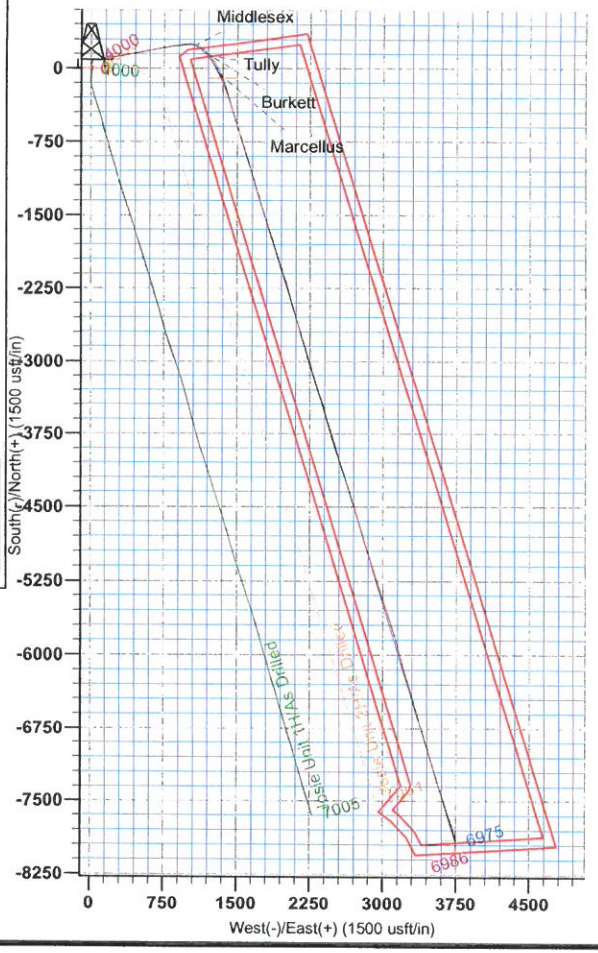
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Swisher Unit 1H	0.0	0.0	0.0	14238707.44	1734919.21	39° 12' 37.336 N	80° 39' 58.941 W
Actual BHL Swisher Unit 1H	6986.3	-7894.1	3747.4	14230813.31	1738666.55	39° 11' 19.142 N	80° 39' 11.699 W





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

Magnetic Field
Strength: 52331.2snT
Dip Angle: 66.80°
Date: 9/21/2013
Model: IGRF2010



Antero Resources

Doddridge County WV
Josie/Swisher/Union Pad
Swisher Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

09 December, 2013

Scientific Drilling

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Swisher Unit 1H
Project:	Doddridge County WV	**TVD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Site:	Josie/Swisher/Union Pad	**MD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Well:	Swisher Unit 1H	**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 Josie/Swisher/Union Pad

Site Position:		**Northing:**	14,238,711.36 usft	**Latitude:**	39° 12' 37.374 N
From:	Map	**Easting:**	1,734,928.40 usft	**Longitude:**	80° 39' 58.824 W
Position Uncertainty:	2.0 usft	**Slot Radius:**	13-3/16"	**Grid Convergence:**	0.21 °

Well Swisher Unit 1H, Marcellus

Well Position	**+N/-S**	0.0 usft	**Northing:**	14,238,707.44 usft	**Latitude:**	39° 12' 37.336 N
	+E/-W	0.0 usft	**Easting:**	1,734,919.21 usft	**Longitude:**	80° 39' 58.941 W
Position Uncertainty		2.0 usft	**Wellhead Elevation:**	1,000.0 usft	**Ground Level:**	976.0 usft

Wellbore Original Wellpath

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/21/2013	-8.51	66.80	52,331

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	162.98

Survey Program **Date** 12/9/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	1,117.5	Survey #2 Def Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
1,200.0	2,658.4	Survey #4 Def Gyro to Int (Original Wellpa	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
2,700.0	4,074.3	Survey #6 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
4,100.0	6,306.6	Survey #8 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
6,350.0	15,621.0	Survey #7 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
100.0	0.85	302.18	100.0	0.4	-0.6	-0.6	0.85
200.0	0.61	341.44	200.0	1.3	-1.4	-1.7	0.54
300.0	0.75	6.68	300.0	2.4	-1.5	-2.8	0.33
400.0	0.64	14.45	400.0	3.6	-1.3	-3.9	0.14
500.0	0.28	40.31	500.0	4.4	-1.0	-4.5	0.41
600.0	0.29	339.79	600.0	4.8	-0.9	-4.9	0.29
700.0	0.16	340.35	700.0	5.2	-1.1	-5.2	0.13

Antero

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Swisher Unit 1H
Project:	Doddridge County WV	**TVD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Site:	Josie/Swisher/Union Pad	**MD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Well:	Swisher Unit 1H	**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)
800.0	0.17	41.80	800.0	5.4	-1.0	-5.5	0.17
900.0	0.12	119.73	900.0	5.5	-0.8	-5.5	0.19
1,000.0	0.06	4.09	1,000.0	5.5	-0.7	-5.4	0.16
1,100.0	0.02	209.61	1,100.0	5.5	-0.7	-5.5	0.08
1,117.5	0.12	151.48	1,117.5	5.5	-0.7	-5.5	0.63
1,200.0	1.00	13.29	1,200.0	6.1	-0.5	-6.0	1.32
1,300.0	3.60	12.60	1,299.9	10.0	0.4	-9.5	2.60
1,400.0	6.46	14.45	1,399.5	18.5	2.5	-17.0	2.86
1,500.0	6.84	15.05	1,498.8	29.7	5.4	-26.8	0.39
1,600.0	6.77	8.18	1,598.1	41.3	7.8	-37.2	0.82
1,700.0	4.91	359.92	1,697.6	51.4	8.6	-46.7	2.04
1,800.0	3.32	14.04	1,797.3	58.5	9.3	-53.2	1.87
1,900.0	2.59	21.00	1,897.2	63.4	10.8	-57.5	0.81
2,000.0	2.16	15.66	1,997.1	67.4	12.1	-60.9	0.48
2,100.0	1.44	18.47	2,097.1	70.4	13.1	-63.5	0.73
2,200.0	0.93	27.83	2,197.0	72.3	13.8	-65.1	0.54
2,300.0	0.75	23.47	2,297.0	73.6	14.5	-66.1	0.19
2,400.0	0.51	13.95	2,397.0	74.6	14.8	-67.0	0.26
2,500.0	0.34	358.80	2,497.0	75.4	14.9	-67.7	0.20
2,600.0	0.31	63.73	2,597.0	75.8	15.2	-68.0	0.35
2,658.4	0.28	4.32	2,655.4	76.0	15.3	-68.2	0.50
2,700.0	0.24	22.43	2,697.0	76.2	15.4	-68.3	0.22
2,800.0	0.22	357.50	2,797.0	76.6	15.4	-68.7	0.10
2,900.0	0.30	328.74	2,897.0	77.0	15.3	-69.1	0.15
3,000.0	0.38	316.02	2,997.0	77.4	14.9	-69.7	0.11
3,100.0	0.24	331.71	3,097.0	77.9	14.6	-70.2	0.16
3,200.0	0.10	49.65	3,197.0	78.1	14.6	-70.4	0.24
3,300.0	0.12	98.85	3,297.0	78.1	14.7	-70.4	0.09
3,400.0	0.30	116.02	3,397.0	78.0	15.1	-70.2	0.19
3,500.0	0.12	65.47	3,497.0	77.9	15.4	-70.0	0.24
3,600.0	0.03	29.53	3,597.0	78.0	15.5	-70.0	0.10
3,700.0	0.14	322.75	3,697.0	78.1	15.5	-70.2	0.13
3,800.0	0.21	336.61	3,797.0	78.4	15.3	-70.5	0.08
3,900.0	0.17	327.48	3,897.0	78.7	15.2	-70.8	0.05
4,000.0	0.28	328.61	3,997.0	79.0	14.9	-71.2	0.11
4,074.3	0.15	34.06	4,071.3	79.2	14.9	-71.4	0.35
4,100.0	0.14	338.29	4,097.0	79.3	14.9	-71.5	0.53
4,200.0	3.24	69.35	4,196.9	80.4	17.5	-71.8	3.25
4,300.0	7.31	77.60	4,296.5	82.8	26.4	-71.4	4.13
4,400.0	10.83	80.43	4,395.2	85.7	41.9	-69.7	3.55
4,500.0	13.71	83.17	4,492.9	88.7	62.9	-66.4	2.94
4,600.0	16.28	82.58	4,589.5	91.9	88.6	-62.0	2.57
4,700.0	17.89	78.05	4,685.1	96.9	117.5	-58.3	2.09
4,800.0	19.43	80.91	4,779.9	102.7	148.9	-54.6	1.79

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Swisher Unit 1H
Project:	Doddridge County WV	**TVD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Site:	Josie/Swisher/Union Pad	**MD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Well:	Swisher Unit 1H	**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)
4,900.0	21.60	79.98	4,873.5	108.5	183.5	-50.1	2.19
5,000.0	23.13	82.93	4,966.0	114.1	221.1	-44.4	1.90
5,100.0	23.38	80.70	5,057.9	119.8	260.2	-38.4	0.92
5,200.0	24.88	79.44	5,149.1	126.8	300.5	-33.3	1.59
5,300.0	26.35	79.17	5,239.3	134.9	342.9	-28.6	1.47
5,400.0	27.42	79.37	5,328.5	143.3	387.4	-23.6	1.07
5,500.0	27.10	79.62	5,417.4	151.6	432.4	-18.4	0.34
5,600.0	25.89	78.61	5,506.9	160.0	476.2	-13.6	1.29
5,700.0	25.60	79.24	5,597.0	168.4	518.8	-9.1	0.40
5,800.0	24.89	79.68	5,687.4	176.2	560.8	-4.3	0.73
5,900.0	24.72	78.12	5,778.2	184.3	601.9	0.0	0.68
6,000.0	26.91	78.20	5,868.2	193.2	644.5	3.9	2.19
6,100.0	28.74	77.47	5,956.6	203.0	690.2	7.9	1.86
6,200.0	26.55	79.10	6,045.2	212.5	735.6	12.1	2.32
6,300.0	26.62	79.65	6,134.6	220.7	779.6	17.1	0.26
6,306.6	26.82	79.74	6,140.5	221.3	782.5	17.5	3.11
6,350.0	26.13	77.33	6,179.4	225.1	801.5	19.3	2.94
6,443.0	26.42	78.85	6,262.8	233.6	841.7	23.0	0.79
6,538.0	26.28	82.44	6,347.9	240.5	883.3	28.6	1.68
6,632.0	27.77	86.29	6,431.6	244.6	925.8	37.1	2.44
6,723.0	26.71	85.06	6,512.6	247.7	967.3	46.2	1.32
6,757.0	26.24	85.01	6,543.0	249.1	982.4	49.4	1.38
6,789.0	25.96	86.42	6,571.7	250.1	996.5	52.5	2.13
6,817.0	26.90	94.06	6,596.8	250.0	1,008.9	56.2	12.59
6,851.0	29.11	104.69	6,626.8	247.4	1,024.6	63.3	16.03
6,883.0	31.51	106.49	6,654.5	243.1	1,040.2	72.0	8.02
6,911.0	34.12	107.38	6,678.0	238.6	1,054.7	80.5	9.48
6,919.0	34.67	108.99	6,684.6	237.2	1,059.0	83.1	13.27
Middlesex							
6,945.0	36.58	113.92	6,705.7	231.7	1,073.0	92.6	13.27
6,977.0	39.61	119.39	6,730.9	222.8	1,090.6	106.2	14.17
7,005.0	41.50	123.69	6,752.2	213.3	1,106.1	119.9	12.05
7,039.0	44.26	127.98	6,777.1	199.7	1,124.9	138.3	11.81
7,071.0	47.48	131.38	6,799.4	185.0	1,142.5	157.5	12.62
7,099.0	49.81	134.89	6,817.9	170.7	1,157.9	175.7	12.56
7,106.0	50.19	135.49	6,822.4	166.9	1,161.6	180.5	8.53
Burkett							
7,133.0	51.69	137.74	6,839.4	151.6	1,176.0	199.3	8.53
7,161.0	53.91	138.55	6,856.3	135.0	1,190.9	219.5	8.26
Tully							
7,165.0	54.23	138.66	6,858.7	132.6	1,193.1	222.4	8.26
7,193.0	56.98	141.22	6,874.5	114.9	1,207.9	243.7	12.38
7,228.0	62.11	144.97	6,892.2	90.8	1,226.0	272.1	17.32
7,259.0	65.71	147.79	6,905.9	67.6	1,241.4	298.7	14.20
7,287.0	68.61	150.66	6,916.7	45.4	1,254.6	323.8	14.02

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EOW Completion Report

Scientific Drilling

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Project:	Doddridge County WV	**TVD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Site:	Josie/Swisher/Union Pad	**MD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Well:	Swisher Unit 1H	**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)
7,322.0	70.60	151.48	6,928.9	16.7	1,270.5	355.9	6.09
7,353.0	72.69	151.43	6,938.7	-9.1	1,284.5	384.7	6.74
7,382.0	75.14	151.79	6,946.7	-33.7	1,297.8	412.0	8.53
7,401.0	77.24	152.63	6,951.3	-50.0	1,306.4	430.2	11.85
Marcellus							
7,416.0	78.90	153.28	6,954.4	-63.0	1,313.0	444.6	11.85
7,447.0	80.48	153.86	6,959.9	-90.4	1,326.6	474.7	5.42
7,476.0	81.41	154.22	6,964.5	-116.1	1,339.2	503.0	3.43
7,510.0	85.14	156.62	6,968.5	-146.8	1,353.2	536.5	13.02
7,568.0	89.73	161.85	6,971.1	-201.0	1,373.7	594.2	11.99
7,601.0	90.23	161.86	6,971.1	-232.3	1,384.0	627.2	1.52
7,695.0	89.93	162.53	6,970.9	-321.8	1,412.7	721.2	0.78
7,789.0	89.63	162.37	6,971.3	-411.4	1,441.1	815.2	0.36
7,883.0	88.96	162.02	6,972.5	-500.9	1,469.8	909.2	0.80
7,980.0	90.40	163.46	6,973.0	-593.5	1,498.6	1,006.2	2.10
8,074.0	89.56	162.84	6,973.0	-683.5	1,525.9	1,100.2	1.11
8,168.0	87.92	161.43	6,975.1	-772.9	1,554.7	1,194.2	2.30
8,262.0	87.79	161.22	6,978.6	-861.9	1,584.8	1,288.1	0.26
8,357.0	89.26	163.37	6,981.1	-952.4	1,613.6	1,383.0	2.74
8,450.0	90.54	163.91	6,981.2	-1,041.6	1,639.8	1,476.0	1.49
8,544.0	90.23	164.01	6,980.6	-1,132.0	1,665.8	1,570.0	0.35
8,639.0	89.69	164.07	6,980.7	-1,223.3	1,691.9	1,665.0	0.57
8,733.0	89.83	163.17	6,981.1	-1,313.5	1,718.4	1,759.0	0.97
8,827.0	89.53	162.21	6,981.6	-1,403.2	1,746.4	1,853.0	1.07
8,921.0	90.13	161.81	6,981.9	-1,492.6	1,775.4	1,946.9	0.77
9,013.0	90.17	162.26	6,981.6	-1,580.1	1,803.8	2,038.9	0.49
9,104.0	90.50	162.55	6,981.1	-1,666.9	1,831.3	2,129.9	0.48
9,196.0	90.70	162.81	6,980.1	-1,754.7	1,858.7	2,221.9	0.36
9,287.0	90.94	162.28	6,978.8	-1,841.5	1,886.0	2,312.9	0.64
9,379.0	91.20	161.66	6,977.1	-1,929.0	1,914.5	2,404.9	0.73
9,470.0	88.86	161.05	6,977.1	-2,015.2	1,943.6	2,495.8	2.66
9,562.0	88.43	162.36	6,979.2	-2,102.5	1,972.4	2,587.8	1.50
9,653.0	90.40	163.72	6,980.2	-2,189.6	1,999.0	2,678.8	2.63
9,745.0	90.44	162.97	6,979.5	-2,277.7	2,025.3	2,770.8	0.82
9,836.0	89.39	164.35	6,979.6	-2,365.0	2,050.9	2,861.8	1.91
9,928.0	89.53	163.75	6,980.5	-2,453.5	2,076.2	2,953.7	0.67
10,019.0	89.97	164.33	6,980.9	-2,541.0	2,101.2	3,044.7	0.80
10,113.0	90.40	165.47	6,980.6	-2,631.7	2,125.7	3,138.7	1.30
10,207.0	90.17	163.36	6,980.1	-2,722.2	2,151.0	3,232.6	2.26
10,301.0	89.77	163.41	6,980.2	-2,812.3	2,177.9	3,326.6	0.43
10,395.0	90.03	163.68	6,980.3	-2,902.5	2,204.5	3,420.6	0.40
10,489.0	90.44	164.73	6,979.9	-2,992.9	2,230.1	3,514.6	1.20
10,584.0	89.53	162.18	6,980.0	-3,084.0	2,257.1	3,609.6	2.85
10,678.0	89.50	162.13	6,980.8	-3,173.5	2,285.9	3,703.6	0.06

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Swisher Unit 1H
Project:	Doddridge County WV	**TVD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Site:	Josie/Swisher/Union Pad	**MD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Well:	Swisher Unit 1H	**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)
10,772.0	89.90	162.43	6,981.3	-3,263.0	2,314.5	3,797.6	0.53
10,866.0	89.90	162.90	6,981.4	-3,352.7	2,342.5	3,891.6	0.50
10,960.0	90.10	163.03	6,981.4	-3,442.6	2,370.1	3,985.6	0.25
11,055.0	89.80	163.48	6,981.5	-3,533.6	2,397.5	4,080.6	0.57
11,149.0	89.83	163.85	6,981.8	-3,623.8	2,423.9	4,174.5	0.39
11,243.0	89.93	163.93	6,982.0	-3,714.1	2,450.0	4,268.5	0.14
11,337.0	89.97	162.98	6,982.1	-3,804.2	2,476.7	4,362.5	1.01
11,431.0	89.93	162.99	6,982.2	-3,894.1	2,504.2	4,456.5	0.04
11,525.0	89.93	163.10	6,982.3	-3,984.0	2,531.7	4,550.5	0.12
11,620.0	89.43	160.58	6,982.8	-4,074.2	2,561.3	4,645.5	2.70
11,714.0	89.23	160.06	6,983.9	-4,162.7	2,592.9	4,739.4	0.59
11,808.0	89.87	162.29	6,984.7	-4,251.7	2,623.3	4,833.3	2.47
11,902.0	89.83	162.93	6,984.9	-4,341.4	2,651.3	4,927.3	0.68
11,996.0	89.50	162.70	6,985.5	-4,431.2	2,679.1	5,021.3	0.43
12,090.0	89.53	162.83	6,986.2	-4,521.0	2,707.0	5,115.3	0.14
12,185.0	89.66	163.11	6,986.9	-4,611.8	2,734.8	5,210.3	0.32
12,279.0	89.43	163.24	6,987.7	-4,701.8	2,762.0	5,304.3	0.28
12,373.0	90.70	163.96	6,987.6	-4,792.0	2,788.5	5,398.3	1.55
12,467.0	90.67	163.47	6,986.4	-4,882.2	2,814.9	5,492.3	0.52
12,561.0	90.40	163.27	6,985.6	-4,972.3	2,841.8	5,586.3	0.36
12,655.0	89.46	161.58	6,985.7	-5,061.9	2,870.2	5,680.3	2.06
12,749.0	90.30	162.04	6,985.9	-5,151.2	2,899.5	5,774.3	1.02
12,843.0	90.30	161.77	6,985.4	-5,240.5	2,928.7	5,868.2	0.29
12,937.0	88.66	160.47	6,986.2	-5,329.5	2,959.1	5,962.2	2.23
13,031.0	88.56	160.80	6,988.5	-5,418.1	2,990.3	6,056.1	0.37
13,125.0	89.13	162.11	6,990.4	-5,507.2	3,020.2	6,150.0	1.52
13,219.0	89.10	161.86	6,991.9	-5,596.6	3,049.2	6,244.0	0.27
13,313.0	88.59	163.10	6,993.8	-5,686.2	3,077.5	6,338.0	1.43
13,407.0	88.49	163.17	6,996.1	-5,776.1	3,104.8	6,431.9	0.13
13,501.0	88.66	163.17	6,998.5	-5,866.1	3,132.0	6,525.9	0.18
13,594.0	90.27	165.07	6,999.4	-5,955.5	3,157.5	6,618.9	2.68
13,689.0	91.07	166.19	6,998.2	-6,047.5	3,181.0	6,713.8	1.45
13,782.0	89.56	162.71	6,997.7	-6,137.1	3,206.0	6,806.7	4.08
13,877.0	89.33	161.82	6,998.6	-6,227.6	3,234.9	6,901.7	0.97
13,971.0	89.16	163.29	6,999.9	-6,317.3	3,263.1	6,995.7	1.57
14,065.0	91.01	165.29	6,999.7	-6,407.7	3,288.5	7,089.7	2.90
14,159.0	91.31	165.20	6,997.8	-6,498.6	3,312.5	7,183.6	0.33
14,253.0	91.17	163.07	6,995.8	-6,589.0	3,338.1	7,277.5	2.27
14,347.0	91.14	162.93	6,993.9	-6,678.9	3,365.6	7,371.5	0.15
14,441.0	91.48	163.94	6,991.8	-6,769.0	3,392.4	7,465.5	1.13
14,536.0	91.07	162.40	6,989.7	-6,859.9	3,419.9	7,560.5	1.68
14,630.0	89.43	163.12	6,989.2	-6,949.6	3,447.8	7,654.4	1.91
14,724.0	90.70	163.32	6,989.1	-7,039.6	3,474.9	7,748.4	1.37
14,818.0	90.22	163.72	6,988.4	-7,129.8	3,501.6	7,842.4	0.66

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Swisher Unit 1H
Project:	Doddridge County WV	**TVD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Site:	Josie/Swisher/Union Pad	**MD Reference:**	Swisher 1H 976 GL + 24 KB @ 1000.0usft
Well:	Swisher Unit 1H	**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)
14,912.0	89.97	163.40	6,988.2	-7,219.9	3,528.2	7,936.4	0.43
15,006.0	90.54	162.67	6,987.8	-7,309.8	3,555.6	8,030.4	0.99
15,101.0	90.54	162.02	6,986.9	-7,400.4	3,584.4	8,125.4	0.68
15,195.0	90.47	162.05	6,986.1	-7,489.8	3,613.4	8,219.4	0.08
15,289.0	89.66	160.93	6,986.0	-7,578.9	3,643.2	8,313.4	1.47
15,383.0	89.30	161.38	6,986.8	-7,667.9	3,673.6	8,407.3	0.61
15,477.0	90.27	161.98	6,987.2	-7,757.1	3,703.2	8,501.3	1.21
15,543.0	90.30	162.00	6,986.9	-7,819.9	3,723.6	8,567.3	0.05
15,621.0	90.50	162.42	6,986.3	-7,894.1	3,747.4	8,645.3	0.60

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
6,919.0	6,684.6	237.2	1,059.0	Middlesex
7,106.0	6,822.4	166.9	1,161.6	Burkett
7,161.0	6,856.3	135.0	1,190.9	Tully
7,401.0	6,951.3	-50.0	1,306.4	Marcellus

Checked By: _____ Approved By: _____ Date: _____