

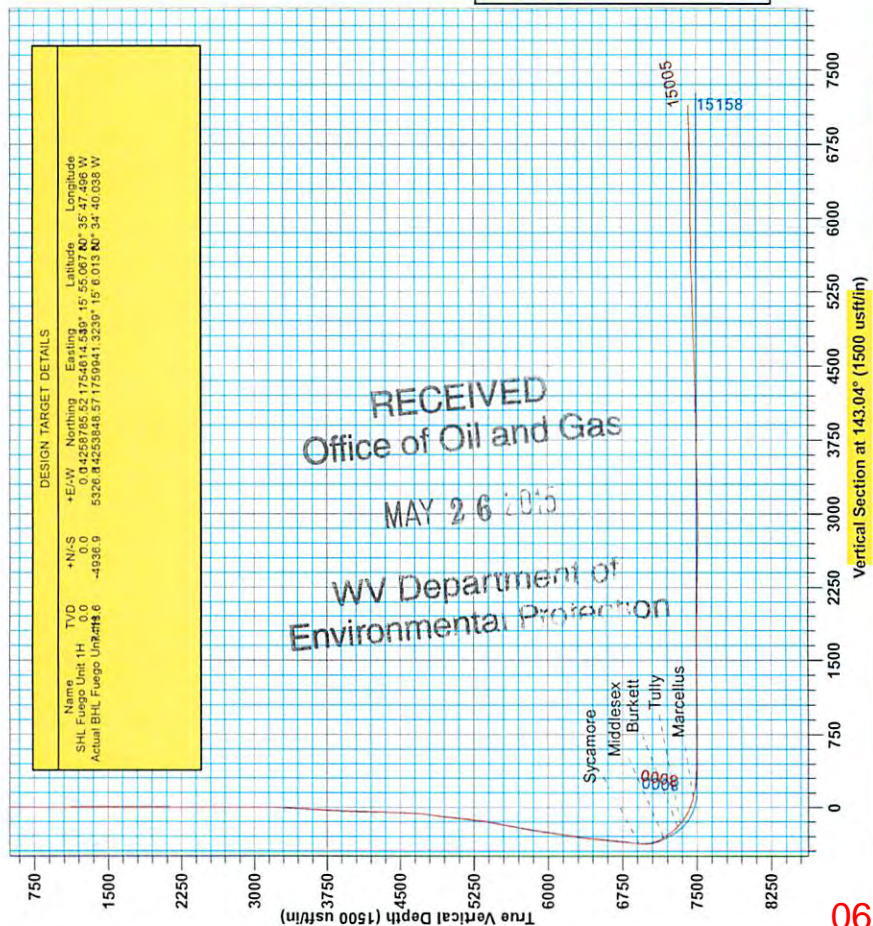


Fuego Unit 1H
 Doddridge County WV
 Northing: 14258785.52
 Easting: 1754614.54
 As Drilled

PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 1340 Surf
 Gr: 1318.0

WELL DETAILS		Fuego Unit 1H	
+N/S	0.0	Northing	14258785.52
+E/W	0.0	Easting	1754614.54
		Latitude	35° 47' 45.6" W
		Longitude	151° 55' 06.7" W

DESIGN TARGET DETAILS			
Name	TVD	+N/S	Latitude
SHL Fuego Unit 1H	0	0.0	35° 47' 45.6" W
Actual BHL Fuego Unit 1H	6	-4936.9	151° 55' 06.7" W
		5326	151° 55' 06.7" W



Azimuths to Grid North
 True North: -0.25°
 Magnetic North: -8.84°
 Magnetic Field
 Strength: 52304.9nT
 Dip Angle: 66.80°
 Date: 12/9/2014
 Model: IGRF2010

To convert Magnetic North to Grid, Subtract 8.84°
 To convert True North to Grid, Subtract 0.25°

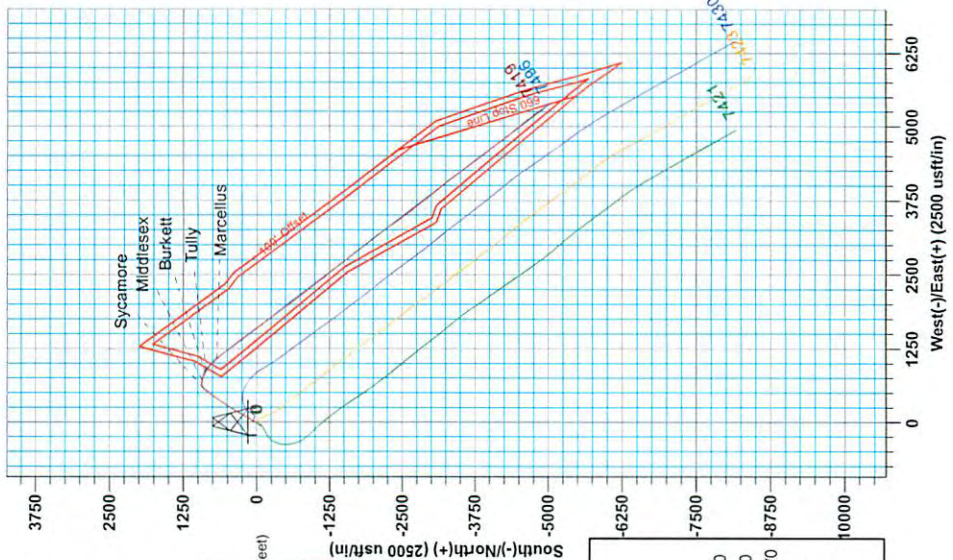
SITE DETAILS: Rikk/Prait/Blackwood/Irons
 Site Center Rkk Unit 1H
 Site Centre Northing: 14258782.29
 Easting: 1754594.81
 Positional Uncertainty: 2.0
 Convergence: 0.26
 Local North: Grid

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

Genie Lighthouse
 16-36, June 16 2014
 Scientific Drilling
 421 South Eagle Lane
 Oklahoma City, OK 73128

LEGEND

- Rikk Unit 1H, Original Wellpath, As Drilled VO
- Rikk Unit 2H, Original Wellpath, As Drilled VO
- Irons Unit 2H, Original Wellpath, As Drilled VO
- Fuego Unit 1H, Original Wellpath, Plan 5 VO
- As Drilled



06/05/2015



Antero Resources

Doddridge County WV
Rikk/Pratt/Blackwood/Irons
Fuego Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

16 June, 2014

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Environmental Protection



Scientific Drilling

06/05/2015

Company:	Antero Resources	Local Co-ordinate Reference:	Well Fuego Unit 1H
Project:	Doddridge County WV	TVD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Site:	Rikk/Pratt/Blackwood/Irons	MD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Well:	Fuego 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 Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Rikk/Pratt/Blackwood/Irons				
Site Position:	Northing:	14,258,782.29 usft	Latitude:	39° 15' 55.036 N	
From: Map	Easting:	1,754,594.81 usft	Longitude:	80° 35' 47.747 W	
Position Uncertainty:	2.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.26 °

Well	Fuego Unit 1H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,258,785.52 usft	Latitude:	39° 15' 55.067 N
	+E/-W	0.0 usft	Easting:	1,754,614.54 usft	Longitude:	80° 35' 47.496 W
Position Uncertainty	2.0 usft	Wellhead Elevation:	1,340.5 usft	Ground Level:	1,318.0 usft	

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/29/2014	-8.58	66.80	52,305

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	143.04	

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Survey Program	Date 6/16/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
109.5	6,577.5	Survey #5 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,636.0	15,005.0	Survey #7 MWD (Original Wellpath)	MWD SDI	MWD - Standard ver 1.0.1	

WV Department of Environmental Protection

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	0.17	348.03	109.5	0.2	0.0	-0.1	0.16
209.5	0.09	246.59	209.5	0.3	-0.1	-0.3	0.21
309.5	0.18	234.67	309.5	0.2	-0.3	-0.3	0.09
409.5	0.16	231.73	409.5	0.0	-0.6	-0.3	0.02
509.5	0.18	215.87	509.5	-0.2	-0.8	-0.3	0.05
609.5	0.10	182.13	609.5	-0.5	-0.9	-0.2	0.11
709.5	0.08	175.04	709.5	-0.6	-0.9	0.0	0.02
809.5	0.10	213.97	809.5	-0.8	-0.9	0.1	0.06
909.5	0.22	222.81	909.5	-1.0	-1.1	0.1	0.12
1,009.5	0.28	215.52	1,009.5	-1.3	-1.4	0.2	0.07



MAY 26 2015

Company: Antero Resources	Local Co-ordinate Reference: Well Fuego Unit 1H
Project: Doddridge County WV	TVD Reference: PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Site: Rikk/Pratt/Blackwood/Irons	MD Reference: PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Well: Fuego Unit 1H	North Reference: Grid: Environmental Protection
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)
1,109.5	0.18	196.75	1,109.5	-1.7	-1.6	0.4	0.12
1,209.5	0.24	197.21	1,209.5	-2.0	-1.7	0.6	0.06
1,309.5	0.23	173.38	1,309.5	-2.4	-1.7	0.9	0.10
1,409.5	0.20	230.73	1,409.5	-2.7	-1.8	1.1	0.21
1,509.5	0.22	226.22	1,509.5	-3.0	-2.1	1.1	0.03
1,609.5	0.19	247.91	1,609.5	-3.2	-2.4	1.1	0.08
1,709.5	0.36	261.66	1,709.5	-3.3	-2.8	0.9	0.18
1,809.5	0.29	264.79	1,809.5	-3.3	-3.4	0.6	0.07
1,909.5	0.24	266.62	1,909.5	-3.4	-3.9	0.4	0.05
2,009.5	0.19	264.94	2,009.5	-3.4	-4.2	0.2	0.05
2,109.5	0.10	280.61	2,109.5	-3.4	-4.5	0.0	0.10
2,209.5	0.18	246.34	2,209.5	-3.4	-4.7	-0.1	0.11
2,309.5	0.09	346.43	2,309.5	-3.4	-4.9	-0.2	0.21
2,409.5	0.08	173.07	2,409.5	-3.4	-4.9	-0.2	0.17
2,509.5	0.19	249.46	2,509.5	-3.5	-5.0	-0.2	0.19
2,609.5	0.26	233.57	2,609.5	-3.7	-5.4	-0.2	0.09
2,709.5	0.31	195.30	2,709.5	-4.1	-5.6	-0.1	0.19
2,809.5	0.25	205.48	2,809.5	-4.6	-5.8	0.2	0.08
2,909.5	0.25	217.38	2,909.5	-5.0	-6.0	0.3	0.05
3,009.5	0.28	222.47	3,009.5	-5.3	-6.3	0.4	0.04
3,109.5	0.29	175.86	3,109.5	-5.7	-6.5	0.7	0.23
3,209.5	3.74	8.36	3,209.4	-2.8	-6.0	-1.4	4.02
3,309.5	4.90	12.14	3,309.1	4.6	-4.6	-6.5	1.19
3,409.5	4.83	10.97	3,408.8	12.9	-2.9	-12.1	0.12
3,509.5	5.61	14.66	3,508.4	21.8	-0.9	-17.9	0.85
3,609.5	6.05	19.58	3,607.8	31.5	2.1	-23.9	0.67
3,709.5	5.84	26.10	3,707.3	41.0	6.1	-29.1	0.71
3,809.5	6.03	25.55	3,806.8	50.3	10.6	-33.8	0.20
3,909.5	6.30	30.72	3,906.2	59.8	15.7	-38.3	0.62
4,009.5	5.91	36.77	4,005.6	68.6	21.6	-41.9	0.75
4,109.5	5.72	35.99	4,105.1	76.8	27.6	-44.8	0.21
4,209.5	5.66	37.26	4,204.6	84.7	33.5	-47.6	0.14
4,309.5	5.57	36.68	4,304.1	92.6	39.4	-50.3	0.11
4,409.5	5.12	34.58	4,403.7	100.1	44.8	-53.0	0.49
4,509.5	5.83	34.36	4,503.2	108.0	50.2	-56.1	0.71
4,609.5	10.01	38.69	4,602.3	119.0	58.5	-59.9	4.22
4,709.5	12.61	27.56	4,700.3	135.4	69.0	-66.7	3.38
4,809.5	15.23	23.00	4,797.4	157.2	79.2	-78.0	2.84
4,909.5	17.59	27.92	4,893.3	182.7	91.4	-91.0	2.74
5,009.5	17.52	31.72	4,988.7	208.8	106.4	-102.9	1.15
5,109.5	16.36	36.57	5,084.3	232.9	122.7	-112.3	1.83
5,209.5	15.56	31.48	5,180.5	255.7	138.1	-121.3	1.61
5,309.5	18.09	25.41	5,276.2	281.2	151.8	-133.4	3.08
5,409.5	21.20	27.85	5,370.4	311.2	166.9	-148.3	3.22



EOW Completion Report



Company: Antero Resources	Local Co-ordinate Reference: Well Fuego Unit 1H
Project: Doddridge County WV	TVD Reference: PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Site: Rikk/Pratt/Blackwood/Irons	MD Reference: PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Well: Fuego Unit 1H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

Office of Oil and Gas
 MAY 26 2015
 WV Department of
 Environmental Protection

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,509.5	24.77	30.15	5,462.4	345.3	185.9	-164.1	3.68
5,609.5	27.47	31.53	5,552.2	383.1	208.5	-180.8	2.77
5,709.5	27.69	31.11	5,640.8	422.6	232.5	-197.9	0.29
5,809.5	26.22	29.86	5,730.0	461.7	255.5	-215.3	1.58
5,909.5	25.82	32.09	5,819.8	499.3	278.1	-231.7	1.06
6,009.5	25.37	34.01	5,910.0	535.5	301.7	-246.5	0.94
6,109.5	26.50	34.56	5,999.9	571.6	326.3	-260.6	1.16
6,209.5	26.19	36.07	6,089.6	607.8	351.9	-274.1	0.74
6,309.5	25.39	34.25	6,179.6	643.4	377.0	-287.4	1.13
6,409.5	24.56	32.91	6,270.2	678.6	400.4	-301.5	1.00
6,509.5	24.44	33.93	6,361.2	713.2	423.2	-315.4	0.44
6,577.5	23.05	38.19	6,423.5	735.3	439.3	-323.4	3.25
6,636.0	22.40	40.78	6,477.4	752.8	453.6	-328.7	2.04
6,730.0	21.33	40.59	6,564.7	779.3	476.5	-336.2	1.14
6,824.0	22.30	39.97	6,651.9	805.9	499.0	-343.9	1.06
6,918.0	22.86	38.09	6,738.7	834.0	521.8	-352.7	0.97
7,012.0	23.11	36.15	6,825.3	863.3	543.9	-362.8	0.85
7,043.0	23.58	35.15	6,853.7	873.2	551.1	-366.4	1.98
7,075.0	23.65	34.17	6,883.1	883.8	558.4	-370.5	1.25
7,107.0	24.52	37.64	6,912.3	894.3	566.0	-374.3	5.19
7,112.0	24.86	39.24	6,916.8	896.0	567.3	-374.8	15.04
Sycamore							
7,138.0	26.91	46.88	6,940.2	904.2	575.1	-376.8	15.04
7,170.0	29.28	55.23	6,968.5	913.7	586.8	-377.2	14.33
7,201.0	31.39	62.00	6,995.2	921.8	600.2	-375.7	12.95
7,233.0	33.29	69.15	7,022.3	928.8	615.7	-372.0	13.34
7,265.0	35.63	74.76	7,048.7	934.4	632.9	-366.1	12.32
7,296.0	37.45	81.60	7,073.6	938.1	651.0	-358.2	14.38
7,328.0	38.37	89.63	7,098.8	939.6	670.6	-347.6	15.68
7,359.0	39.09	96.80	7,123.0	938.5	689.9	-335.1	14.65
7,391.0	39.44	102.14	7,147.8	935.2	709.8	-320.5	10.62
7,410.0	39.00	105.89	7,162.5	932.3	721.5	-311.2	12.69
Middlesex							
7,423.0	38.77	108.49	7,172.7	929.9	729.3	-304.5	12.69
7,454.0	38.70	112.44	7,196.8	923.1	747.5	-288.2	7.98
7,486.0	38.51	115.88	7,221.8	914.9	765.7	-270.7	6.73
7,517.0	40.80	118.29	7,245.7	905.9	783.3	-252.9	8.90
7,549.0	44.41	117.63	7,269.3	895.8	802.4	-233.3	11.37
7,581.0	47.00	118.59	7,291.6	885.0	822.6	-212.6	8.37
7,599.0	48.61	118.52	7,303.7	878.6	834.3	-200.4	8.94
Burkett							
7,612.0	49.77	118.48	7,312.2	873.9	843.0	-191.5	8.94
7,644.0	52.95	120.66	7,332.2	861.6	864.7	-168.5	11.27
7,646.0	53.12	120.79	7,333.4	860.8	866.1	-167.1	9.96
Tully							

Company:	Antero Resources	Local Co-ordinate Reference:	Well Fuego Unit 1H
Project:	Doddridge County WV	TVD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Site:	Rikk/Pratt/Blackwood/Irons	MD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Well:	Fuego 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)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	
7,675.0	55.59	122.63	7,350.3	848.4	886.1	-145.1	9.96	
7,707.0	57.77	124.40	7,367.9	833.6	908.4	-119.9	8.23	
7,739.0	59.79	125.63	7,384.4	817.9	930.8	-93.9	7.12	
7,770.0	62.68	128.23	7,399.4	801.6	952.5	-67.8	11.87	
7,802.0	65.52	131.43	7,413.3	783.1	974.6	-39.8	12.64	
7,833.0	67.65	133.73	7,425.7	763.9	995.6	-11.8	9.67	
7,865.0	70.17	134.92	7,437.2	743.0	1,016.9	17.7	8.61	
7,897.0	73.23	135.82	7,447.2	721.4	1,038.2	47.8	9.93	
7,929.0	75.69	136.94	7,455.8	699.1	1,059.5	78.4	8.39	
7,952.0	77.42	138.01	7,461.1	682.6	1,074.6	100.7	8.77	
Marcellus								
7,960.0	78.02	138.38	7,462.8	676.8	1,079.8	108.5	8.77	
7,992.0	79.52	139.44	7,469.1	653.1	1,100.5	139.8	5.70	
8,023.0	81.00	139.85	7,474.3	629.8	1,120.3	170.3	4.95	
8,055.0	82.69	139.86	7,478.9	605.6	1,140.7	201.9	5.28	
8,086.0	83.09	139.10	7,482.7	582.2	1,160.7	232.6	2.75	
8,118.0	85.11	139.43	7,486.0	558.1	1,181.4	264.4	6.40	
8,175.0	88.72	141.37	7,489.1	514.3	1,217.7	321.2	7.19	
8,248.0	89.36	143.18	7,490.3	456.5	1,262.4	394.2	2.63	
8,270.0	89.16	142.37	7,490.6	439.0	1,275.7	416.2	3.79	
8,365.0	89.16	142.90	7,492.0	363.5	1,333.3	511.2	0.56	
8,460.0	89.70	144.08	7,492.9	287.2	1,389.8	606.2	1.37	
8,555.0	88.62	142.18	7,494.3	211.2	1,446.8	701.2	2.30	
8,650.0	89.46	144.39	7,495.9	135.0	1,503.6	796.1	2.49	
8,745.0	90.64	144.68	7,495.8	57.7	1,558.7	891.1	1.28	
8,840.0	90.77	143.71	7,494.6	-19.4	1,614.3	986.1	1.03	
8,935.0	90.57	142.83	7,493.5	-95.5	1,671.1	1,081.1	0.95	
9,026.0	89.80	144.15	7,493.2	-168.6	1,725.2	1,172.1	1.68	
9,118.0	89.46	144.32	7,493.8	-243.3	1,779.0	1,264.0	0.41	
9,209.0	89.49	146.36	7,494.7	-318.1	1,830.8	1,355.0	2.24	
9,301.0	88.89	144.41	7,496.0	-393.8	1,883.0	1,446.9	2.22	
9,392.0	88.92	143.62	7,497.7	-467.5	1,936.5	1,537.8	0.87	
9,482.0	90.48	144.27	7,498.2	-540.2	1,989.4	1,627.8	1.88	
9,574.0	89.43	143.63	7,498.2	-614.6	2,043.6	1,719.8	1.34	
9,665.0	88.90	144.27	7,499.6	-688.2	2,097.1	1,810.8	0.91	
9,757.0	90.24	142.11	7,500.3	-761.8	2,152.2	1,902.8	2.76	
9,848.0	89.09	140.51	7,500.8	-832.8	2,209.1	1,993.7	2.17	
9,939.0	90.67	141.82	7,501.0	-903.7	2,266.2	2,084.7	2.26	
10,031.0	89.20	142.19	7,501.1	-976.2	2,322.8	2,176.7	1.65	
10,125.0	90.44	144.13	7,501.4	-1,051.4	2,379.2	2,270.7	2.45	
10,220.0	89.36	141.27	7,501.5	-1,127.0	2,436.7	2,365.6	3.22	
10,315.0	88.66	141.19	7,503.2	-1,201.1	2,496.2	2,460.6	0.74	
10,410.0	88.23	141.79	7,505.8	-1,275.4	2,555.4	2,555.5	0.78	
10,505.0	88.35	143.42	7,508.6	-1,350.8	2,613.0	2,650.5	1.72	
10,600.0	88.49	143.00	7,511.2	-1,426.9	2,669.9	2,745.4	0.47	

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Office of Oil and Gas
MAY 26 2015
WV Department of Environmental Protection



Company:	Antero Resources	Local Co-ordinate Reference:	Well Fuego Unit 1H
Project:	Doddridge County WV	TVD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Site:	Rikk/Pratt/Blackwood/Irons	MD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Well:	Fuego 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)	
10,694.0	89.96	142.51	7,512.5	-1,501.7	2,726.8	2,839.4	1.65	
10,789.0	90.74	142.26	7,511.9	-1,576.9	2,784.8	2,934.4	0.86	
10,884.0	90.64	140.95	7,510.8	-1,651.4	2,843.8	3,029.4	1.38	
10,979.0	92.65	141.66	7,508.0	-1,725.5	2,903.1	3,124.3	2.24	
11,074.0	92.05	142.85	7,504.1	-1,800.5	2,961.2	3,219.2	1.40	
11,169.0	90.98	141.46	7,501.6	-1,875.5	3,019.5	3,314.1	1.85	
11,263.0	90.07	142.74	7,500.8	-1,949.7	3,077.2	3,408.1	1.67	
11,358.0	91.92	145.92	7,499.1	-2,026.8	3,132.6	3,503.1	3.87	
11,453.0	90.50	143.46	7,497.1	-2,104.3	3,187.5	3,598.0	2.99	
11,548.0	90.40	145.23	7,496.4	-2,181.5	3,242.9	3,693.0	1.87	
11,643.0	91.47	145.25	7,494.8	-2,259.6	3,297.0	3,787.9	1.13	
11,738.0	90.50	144.77	7,493.2	-2,337.4	3,351.5	3,882.8	1.14	
11,832.0	92.04	146.67	7,491.1	-2,415.0	3,404.4	3,976.7	2.60	
11,928.0	91.21	142.20	7,488.4	-2,493.1	3,460.2	4,072.6	4.73	
12,023.0	90.50	141.63	7,487.0	-2,567.8	3,518.8	4,167.6	0.96	
12,117.0	92.07	143.65	7,484.8	-2,642.5	3,575.8	4,261.5	2.72	
12,212.0	91.84	143.56	7,481.6	-2,719.0	3,632.2	4,356.5	0.26	
12,307.0	90.84	143.48	7,479.4	-2,795.3	3,688.6	4,451.4	1.06	
12,402.0	90.87	142.10	7,478.0	-2,871.0	3,746.1	4,546.4	1.45	
12,497.0	92.22	140.72	7,475.4	-2,945.2	3,805.3	4,641.3	2.03	
12,591.0	91.77	140.04	7,472.1	-3,017.6	3,865.2	4,735.2	0.87	
12,686.0	92.11	141.59	7,468.9	-3,091.1	3,925.2	4,830.0	1.67	
12,781.0	90.40	141.07	7,466.8	-3,165.3	3,984.5	4,925.0	1.88	
12,876.0	91.04	142.45	7,465.6	-3,239.9	4,043.3	5,019.9	1.60	
12,971.0	91.37	143.49	7,463.6	-3,315.7	4,100.5	5,114.9	1.15	
13,065.0	93.24	144.45	7,459.9	-3,391.7	4,155.8	5,208.8	2.24	
13,160.0	92.38	144.04	7,455.2	-3,468.7	4,211.2	5,303.7	1.00	
13,255.0	92.66	144.29	7,451.0	-3,545.6	4,266.8	5,398.6	0.39	
13,350.0	91.61	144.69	7,447.5	-3,622.9	4,321.9	5,493.5	1.18	
13,445.0	90.54	144.29	7,445.7	-3,700.2	4,377.1	5,588.4	1.20	
13,539.0	89.83	143.29	7,445.4	-3,776.1	4,432.6	5,682.4	1.30	
13,634.0	90.64	143.24	7,445.0	-3,852.2	4,489.4	5,777.4	0.85	
13,729.0	91.84	142.40	7,443.0	-3,927.9	4,546.8	5,872.4	1.54	
13,824.0	91.48	141.66	7,440.2	-4,002.7	4,605.3	5,967.3	0.87	
13,919.0	90.00	140.72	7,439.0	-4,076.7	4,664.8	6,062.3	1.85	
14,014.0	89.63	141.84	7,439.3	-4,150.9	4,724.2	6,157.2	1.24	
14,109.0	91.55	144.71	7,438.3	-4,227.0	4,781.0	6,252.2	3.63	
14,204.0	90.84	143.30	7,436.3	-4,303.8	4,836.8	6,347.2	1.66	
14,299.0	90.00	139.98	7,435.6	-4,378.3	4,895.8	6,442.1	3.60	
14,394.0	90.13	140.40	7,435.5	-4,451.3	4,956.6	6,537.0	0.46	
14,489.0	92.05	141.33	7,433.7	-4,524.9	5,016.5	6,631.9	2.25	
14,584.0	90.98	142.69	7,431.2	-4,599.8	5,075.0	6,726.9	1.82	
14,679.0	91.58	144.06	7,429.1	-4,676.0	5,131.7	6,821.8	1.57	
14,774.0	91.89	143.50	7,426.2	-4,752.6	5,187.8	6,916.8	0.67	

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 WV Department of Environmental Protection

Company:	Antero Resources	Local Co-ordinate Reference:	Well Fuego Unit 1H
Project:	Doddridge County WV	TVD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Site:	Rikk/Pratt/Blackwood/Irons	MD Reference:	PATT 317: Fuego 1H 1318 GL + 22.5 RKB @ 134
Well:	Fuego 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)
14,869.0	91.98	142.85	7,423.0	-4,828.6	5,244.7	7,011.7	0.69
14,944.0	91.91	142.54	7,420.5	-4,888.2	5,290.1	7,086.7	0.42
15,005.0	91.50	143.50	7,418.6	-4,937.0	5,326.8	7,147.7	1.71

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,112.0	6,916.8	896.0	567.3	Sycamore
7,410.0	7,162.5	932.3	721.5	Middlesex
7,599.0	7,303.7	878.6	834.3	Burkett
7,646.0	7,333.4	860.8	866.1	Tully
7,952.0	7,461.1	682.6	1,074.6	Marcellus

Checked By: _____ Approved By: _____ Date: _____

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Environmental Protection