



Richard Unit 1H
 Doddridge County WV
 Northing: 14242012.02
 Easting: 1747841.28
 As Drilled



Genie Lightfoot
 9:59, January 06 2015
 Scientific Drilling
 11220 N.W. 10th Street
 Yukon, OK 73099

WELL DETAILS Richard Unit 1H

+N/-S	0.0
+E/-W	0.0
Northing	14242012.02
Easting	1747841.28
Latitude	39° 13' 9.508 N
Longitude	80° 37' 14.538 W
Ground Level	1331.0

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

SITE DETAILS:

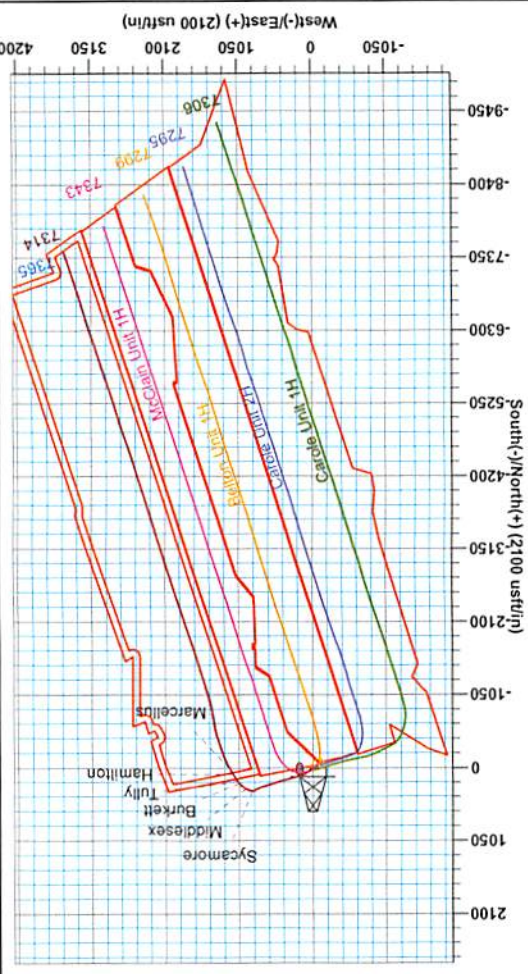
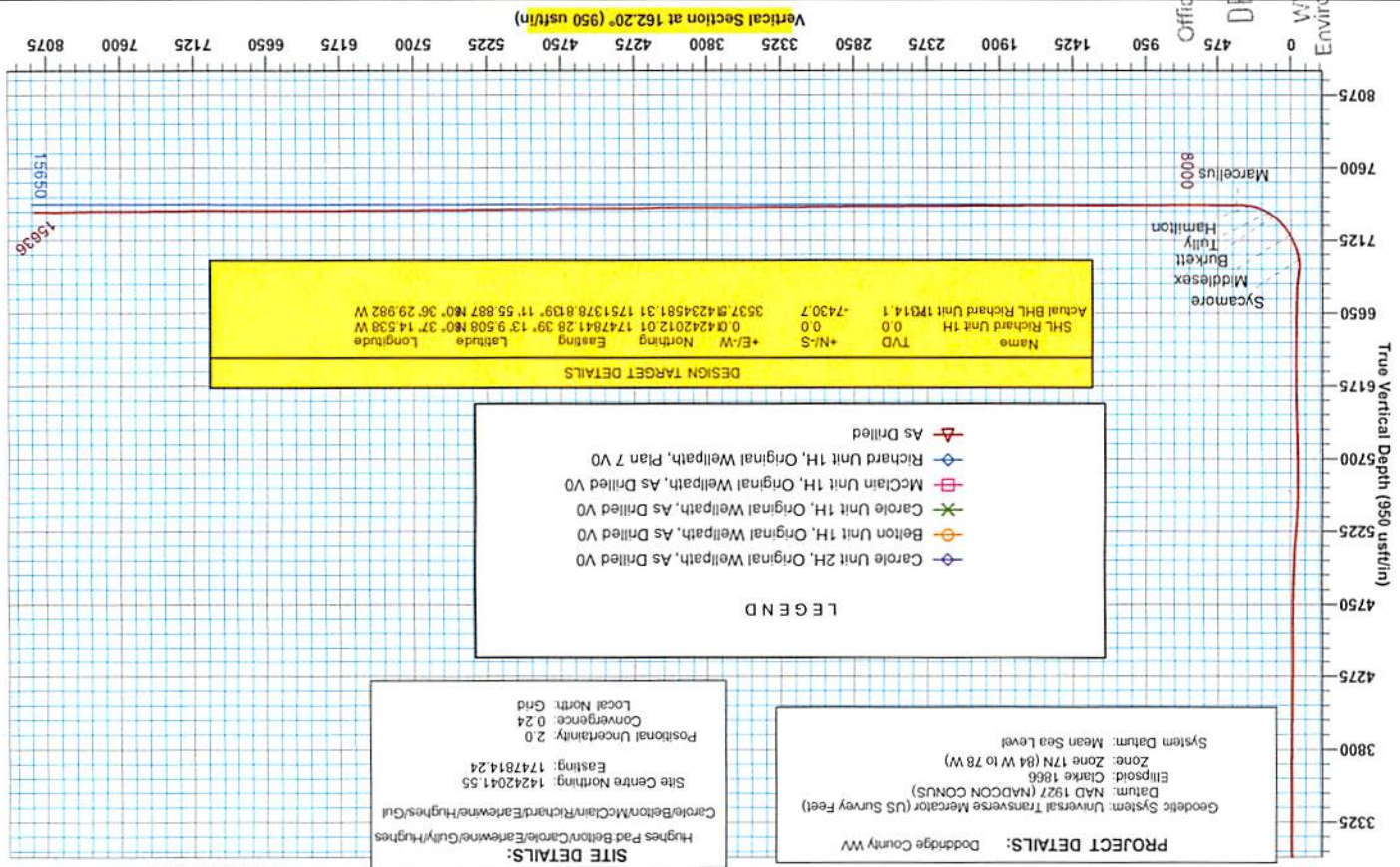
Hughes Pad	Belton/Carole/Earnewine/Hughes/Gul
Carole/Belton/McClain/Richard/Earnewine/Hughes/Gul	
Site Centre Northing:	14242041.55
Site Centre Easting:	1747814.24
Positional Uncertainty:	2.0
Convergence:	0.24
Local North:	Grid

LEGEND

- As Drilled
- Richard Unit 1H, Original Wellpath, As Drilled V0
- McClain Unit 1H, Original Wellpath, As Drilled V0
- Carole Unit 1H, Original Wellpath, As Drilled V0
- Belton Unit 1H, Original Wellpath, As Drilled V0
- Carole Unit 2H, Original Wellpath, As Drilled V0

DESIGN TARGET DETAILS

Name	SHL Richard Unit 1H
TVD	17014.1
+N/-S	-7430.7
+E/-W	3537.842344581, 31 1751378.8139° 11' 55.887 N0° 36' 29.982 W
Latitude	0.0
Longitude	0.0
Northing	1747841.28 39° 13' 9.508 N0° 37' 14.538 W
Easting	1747841.28 39° 13' 9.508 N0° 37' 14.538 W



Azimuths to Grid North
 True North: -0.24°
 Magnetic North: -8.82°
 To convert True Magnetic North to Grid, Subtract 8.82°
 Magnetic Field
 Strength: 52163.9nT
 Dip Angle: 66.77°
 Date: 10/3/2014
 Model: BGSAM2014

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 WV Department of
 Environmental Protection



Company: Antero	Local Co-ordinate Reference: Well Richard Unit 1H
Project: Doddridge County WV	TVD Reference: Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site: Hughes Pad:Belton/Carole/Earlewine/Gully/Hughes	MD Reference: Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well: Richard 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	Hughes Pad:Belton/Carole/Earlewine/Gully/Hughes			
Site Position:	Northing:	14,242,041.55 usft	Latitude:	39° 13' 9.801 N
From: Map	Easting:	1,747,814.24 usft	Longitude:	80° 37' 14.880 W
Position Uncertainty: 2.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.24 °

Well	Richard Unit 1H, Marcellus			
Well Position	+N/-S	0.0 usft	Northing:	14,242,012.02 usft
	+E/-W	0.0 usft	Easting:	1,747,841.28 usft
Position Uncertainty		2.0 usft	Wellhead Elevation:	1,350.0 usft
			Ground Level:	1,331.0 usft

Wellbore	Original Wellpath			
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	10/3/2014	-8.58	66.77	52,164

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	162.20

Survey Program	Date 1/6/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
31.0	6,841.0	Survey #4 Final Gyro (Original Wellpath)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
6,891.0	15,636.0	Survey #5 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. 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
31.0	0.12	273.33	31.0	0.0	0.0	0.0	0.39
56.0	0.24	273.33	56.0	0.0	-0.1	0.0	0.48
81.0	0.36	273.33	81.0	0.0	-0.2	-0.1	0.48
106.0	0.48	273.33	106.0	0.0	-0.4	-0.2	0.48
131.0	0.53	283.44	131.0	0.1	-0.6	-0.3	0.41
156.0	0.45	279.29	156.0	0.1	-0.9	-0.4	0.35
181.0	0.45	277.78	181.0	0.1	-1.0	-0.4	0.05
206.0	0.35	261.53	206.0	0.1	-1.2	-0.5	0.60
231.0	0.23	266.16	231.0	0.1	-1.3	-0.5	0.49
256.0	0.19	253.75	256.0	0.1	-1.4	-0.5	0.24



Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
Project:	Doddridge County WV	TVD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard 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)	
281.0	0.15	251.62	281.0	0.1	-1.5	-0.5	0.16	
306.0	0.13	298.03	306.0	0.1	-1.6	-0.6	0.45	
331.0	0.16	251.25	331.0	0.1	-1.6	-0.6	0.47	
356.0	0.14	232.28	356.0	0.1	-1.7	-0.6	0.21	
381.0	0.16	233.59	381.0	0.0	-1.7	-0.5	0.08	
406.0	0.12	231.56	406.0	0.0	-1.8	-0.5	0.16	
431.0	0.12	190.30	431.0	-0.1	-1.8	-0.5	0.34	
456.0	0.14	184.59	456.0	-0.1	-1.8	-0.4	0.10	
481.0	0.12	151.48	481.0	-0.2	-1.8	-0.4	0.31	
506.0	0.12	181.59	506.0	-0.2	-1.8	-0.3	0.25	
531.0	0.20	148.28	531.0	-0.3	-1.8	-0.3	0.48	
556.0	0.15	123.09	556.0	-0.3	-1.7	-0.2	0.36	
581.0	0.10	138.32	581.0	-0.4	-1.7	-0.2	0.24	
606.0	0.18	129.34	606.0	-0.4	-1.6	-0.1	0.33	
631.0	0.25	141.28	631.0	-0.5	-1.6	0.0	0.33	
656.0	0.22	140.62	656.0	-0.6	-1.5	0.1	0.12	
681.0	0.16	134.04	681.0	-0.6	-1.4	0.2	0.25	
706.0	0.22	137.55	706.0	-0.7	-1.4	0.2	0.24	
731.0	0.29	143.96	731.0	-0.8	-1.3	0.3	0.30	
756.0	0.32	146.68	756.0	-0.9	-1.2	0.5	0.13	
781.0	0.28	139.93	781.0	-1.0	-1.2	0.6	0.21	
806.0	0.28	155.57	806.0	-1.1	-1.1	0.7	0.30	
831.0	0.11	162.52	831.0	-1.2	-1.1	0.8	0.69	
856.0	0.13	169.02	856.0	-1.2	-1.1	0.8	0.10	
881.0	0.07	212.36	881.0	-1.3	-1.1	0.9	0.37	
906.0	0.02	225.50	906.0	-1.3	-1.1	0.9	0.20	
931.0	0.04	194.24	931.0	-1.3	-1.1	0.9	0.10	
956.0	0.08	27.53	956.0	-1.3	-1.1	0.9	0.48	
981.0	0.14	121.64	981.0	-1.3	-1.0	0.9	0.66	
1,006.0	0.08	141.95	1,006.0	-1.3	-1.0	0.9	0.28	
1,031.0	0.08	123.64	1,031.0	-1.3	-1.0	1.0	0.10	
1,056.0	0.09	158.01	1,056.0	-1.4	-0.9	1.0	0.20	
1,081.0	0.15	185.46	1,081.0	-1.4	-0.9	1.1	0.33	
1,106.0	0.12	245.62	1,106.0	-1.5	-1.0	1.1	0.55	
1,131.0	0.13	169.70	1,131.0	-1.5	-1.0	1.1	0.62	
1,156.0	0.15	191.39	1,156.0	-1.6	-1.0	1.2	0.22	
1,181.0	0.15	202.98	1,181.0	-1.6	-1.0	1.2	0.12	
1,206.0	0.14	214.48	1,206.0	-1.7	-1.0	1.3	0.12	
1,231.0	0.43	166.29	1,231.0	-1.8	-1.0	1.4	1.41	
1,256.0	0.07	170.51	1,256.0	-1.9	-1.0	1.5	1.44	
1,281.0	0.14	271.28	1,281.0	-1.9	-1.0	1.5	0.67	
1,306.0	0.07	277.72	1,306.0	-1.9	-1.1	1.5	0.28	
1,331.0	0.07	322.86	1,331.0	-1.9	-1.1	1.5	0.21	
1,356.0	0.06	172.71	1,356.0	-1.9	-1.1	1.5	0.50	

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Company: Antero	Local Co-ordinate Reference: Well Richard Unit 1H
Project: Doddridge County WV	TVD Reference: Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site: Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference: Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well: Richard 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)
1,381.0	0.13	248.08	1,381.0	-1.9	-1.1	1.5	0.51
1,406.0	0.07	221.40	1,406.0	-1.9	-1.2	1.5	0.30
1,431.0	0.12	177.26	1,431.0	-2.0	-1.2	1.5	0.34
1,456.0	0.09	197.29	1,456.0	-2.0	-1.2	1.6	0.19
1,481.0	0.13	219.91	1,481.0	-2.1	-1.2	1.6	0.23
1,506.0	0.17	233.93	1,506.0	-2.1	-1.3	1.6	0.22
1,531.0	0.14	214.57	1,531.0	-2.1	-1.3	1.6	0.24
1,556.0	0.09	262.88	1,556.0	-2.2	-1.3	1.7	0.42
1,581.0	0.14	241.06	1,581.0	-2.2	-1.4	1.7	0.26
1,606.0	0.18	258.16	1,606.0	-2.2	-1.5	1.7	0.25
1,631.0	0.08	240.02	1,631.0	-2.2	-1.5	1.7	0.43
1,656.0	0.11	275.79	1,656.0	-2.2	-1.6	1.7	0.26
1,681.0	0.02	27.33	1,681.0	-2.2	-1.6	1.6	0.48
1,706.0	0.06	315.12	1,706.0	-2.2	-1.6	1.6	0.23
1,731.0	0.10	207.73	1,731.0	-2.2	-1.6	1.6	0.52
1,756.0	0.11	265.82	1,756.0	-2.3	-1.6	1.6	0.41
1,781.0	0.16	226.34	1,781.0	-2.3	-1.7	1.7	0.41
1,806.0	0.11	260.46	1,806.0	-2.3	-1.7	1.7	0.37
1,831.0	0.09	254.80	1,831.0	-2.3	-1.8	1.7	0.09
1,856.0	0.09	255.40	1,856.0	-2.3	-1.8	1.7	0.00
1,881.0	0.07	290.97	1,881.0	-2.3	-1.8	1.6	0.21
1,906.0	0.06	296.74	1,906.0	-2.3	-1.9	1.6	0.05
1,931.0	0.05	43.95	1,931.0	-2.3	-1.9	1.6	0.35
1,956.0	0.09	42.99	1,956.0	-2.3	-1.9	1.6	0.16
1,981.0	0.07	31.21	1,981.0	-2.2	-1.8	1.6	0.10
2,006.0	0.07	289.12	2,006.0	-2.2	-1.8	1.6	0.44
2,031.0	0.04	262.41	2,031.0	-2.2	-1.9	1.6	0.15
2,056.0	0.10	305.19	2,056.0	-2.2	-1.9	1.5	0.30
2,081.0	0.14	318.95	2,081.0	-2.2	-1.9	1.5	0.20
2,106.0	0.04	320.83	2,106.0	-2.2	-2.0	1.5	0.40
2,131.0	0.21	321.69	2,131.0	-2.1	-2.0	1.4	0.68
2,156.0	0.07	322.72	2,156.0	-2.1	-2.0	1.3	0.56
2,181.0	0.17	313.61	2,181.0	-2.0	-2.1	1.3	0.41
2,206.0	0.12	323.65	2,206.0	-2.0	-2.1	1.2	0.22
2,231.0	0.20	5.09	2,231.0	-1.9	-2.1	1.2	0.54
2,256.0	0.06	7.21	2,256.0	-1.9	-2.1	1.1	0.56
2,281.0	0.14	345.46	2,281.0	-1.8	-2.1	1.1	0.35
2,306.0	0.27	310.48	2,306.0	-1.7	-2.2	1.0	0.70
2,331.0	0.03	348.25	2,331.0	-1.7	-2.2	0.9	0.99
2,356.0	0.09	333.30	2,356.0	-1.7	-2.2	0.9	0.25
2,381.0	0.15	330.96	2,381.0	-1.6	-2.2	0.9	0.24
2,406.0	0.09	48.11	2,406.0	-1.6	-2.2	0.8	0.63
2,431.0	0.11	256.56	2,431.0	-1.6	-2.3	0.8	0.78
2,456.0	0.03	187.62	2,456.0	-1.6	-2.3	0.8	0.41
2,481.0	0.05	14.62	2,481.0	-1.6	-2.3	0.8	0.32

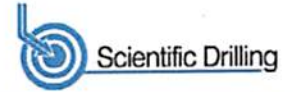


Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
Project:	Doddridge County WV	TVD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard Unit 1H	North Reference:	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)
2,506.0	0.12	12.96	2,506.0	-1.6	-2.3	0.8	0.28
2,531.0	0.37	54.25	2,531.0	-1.5	-2.2	0.7	1.16
2,556.0	1.16	55.89	2,556.0	-1.3	-1.9	0.6	3.16
2,581.0	2.48	63.70	2,581.0	-0.9	-1.2	0.5	5.36
2,606.0	3.17	56.92	2,605.9	-0.3	-0.2	0.2	3.06
2,631.0	3.71	55.88	2,630.9	0.5	1.1	-0.2	2.17
2,656.0	4.23	53.12	2,655.8	1.5	2.5	-0.7	2.22
2,681.0	5.24	48.93	2,680.8	2.8	4.1	-1.5	4.27
2,706.0	5.08	48.68	2,705.7	4.3	5.8	-2.4	0.65
2,731.0	5.57	51.50	2,730.5	5.8	7.6	-3.2	2.22
2,756.0	6.09	54.95	2,755.4	7.3	9.6	-4.0	2.51
2,781.0	6.30	59.28	2,780.3	8.8	11.9	-4.7	2.05
2,806.0	6.56	63.85	2,805.1	10.1	14.3	-5.3	2.30
2,831.0	6.55	63.73	2,829.9	11.4	16.9	-5.7	0.07
2,856.0	6.58	63.87	2,854.8	12.6	19.4	-6.1	0.14
2,881.0	6.53	62.92	2,879.6	13.9	22.0	-6.5	0.48
2,906.0	6.43	61.97	2,904.5	15.2	24.5	-7.0	0.59
2,931.0	6.38	61.56	2,929.3	16.6	27.0	-7.5	0.27
2,956.0	6.36	61.26	2,954.1	17.9	29.4	-8.0	0.16
2,981.0	6.19	61.13	2,979.0	19.2	31.8	-8.6	0.68
3,006.0	5.99	61.50	3,003.9	20.5	34.1	-9.1	0.82
3,031.0	5.51	63.35	3,028.7	21.6	36.3	-9.5	2.06
3,056.0	4.40	67.90	3,053.6	22.5	38.3	-9.7	4.71
3,081.0	3.47	74.05	3,078.6	23.1	39.9	-9.8	4.08
3,106.0	2.92	83.10	3,103.5	23.4	41.3	-9.6	2.98
3,131.0	2.30	97.55	3,128.5	23.4	42.4	-9.3	3.60
3,156.0	1.81	118.35	3,153.5	23.1	43.2	-8.8	3.54
3,181.0	1.77	119.86	3,178.5	22.8	43.9	-8.2	0.25
3,206.0	1.73	121.28	3,203.5	22.4	44.6	-7.7	0.24
3,231.0	1.16	127.06	3,228.5	22.0	45.1	-7.2	2.35
3,256.0	0.46	182.66	3,253.5	21.8	45.3	-6.9	3.91
3,281.0	0.97	260.56	3,278.5	21.6	45.1	-6.8	3.93
3,306.0	1.55	263.69	3,303.5	21.6	44.5	-6.9	2.34
3,331.0	1.59	263.22	3,328.4	21.5	43.9	-7.0	0.17
3,356.0	1.61	263.70	3,353.4	21.4	43.2	-7.2	0.10
3,381.0	1.68	259.68	3,378.4	21.3	42.5	-7.3	0.54
3,406.0	1.67	259.60	3,403.4	21.2	41.7	-7.4	0.04
3,431.0	1.65	256.46	3,428.4	21.0	41.0	-7.5	0.37
3,456.0	1.52	254.69	3,453.4	20.8	40.4	-7.5	0.56
3,481.0	1.49	252.07	3,478.4	20.7	39.7	-7.5	0.30
3,506.0	1.46	253.27	3,503.4	20.5	39.1	-7.5	0.17
3,531.0	1.35	251.43	3,528.4	20.3	38.5	-7.5	0.48
3,556.0	1.47	251.49	3,553.4	20.1	38.0	-7.5	0.48
3,581.0	1.39	253.17	3,578.4	19.9	37.4	-7.5	0.36



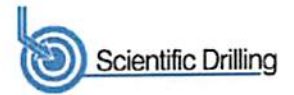
EOW Completion Report



Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
Project:	Doddridge County WV	TVD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh-	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard 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)	
3,606.0	1.30	257.47	3,603.4	19.7	36.8	-7.6	0.54	
3,631.0	0.86	279.81	3,628.3	19.7	36.3	-7.7	2.40	
3,656.0	0.88	278.65	3,653.3	19.8	36.0	-7.8	0.11	
3,681.0	0.85	280.11	3,678.3	19.8	35.6	-8.0	0.15	
3,706.0	0.69	286.78	3,703.3	19.9	35.3	-8.2	0.73	
3,731.0	0.86	278.00	3,728.3	20.0	34.9	-8.4	0.83	
3,756.0	1.00	276.25	3,753.3	20.0	34.5	-8.5	0.57	
3,781.0	0.71	280.57	3,778.3	20.1	34.2	-8.7	1.19	
3,806.0	0.37	293.68	3,803.3	20.1	33.9	-8.8	1.44	
3,831.0	0.25	311.95	3,828.3	20.2	33.8	-8.9	0.62	
3,856.0	0.23	315.63	3,853.3	20.3	33.7	-9.0	0.10	
3,881.0	0.32	314.61	3,878.3	20.4	33.7	-9.1	0.36	
3,906.0	0.35	341.61	3,903.3	20.5	33.6	-9.2	0.64	
3,931.0	0.38	326.90	3,928.3	20.6	33.5	-9.4	0.39	
3,956.0	0.47	327.30	3,953.3	20.8	33.4	-9.6	0.36	
3,981.0	0.57	328.31	3,978.3	21.0	33.3	-9.8	0.40	
4,006.0	0.66	332.75	4,003.3	21.2	33.2	-10.1	0.41	
4,031.0	0.67	327.61	4,028.3	21.5	33.0	-10.4	0.24	
4,056.0	0.68	329.64	4,053.3	21.7	32.9	-10.6	0.10	
4,081.0	0.65	326.46	4,078.3	22.0	32.7	-10.9	0.19	
4,106.0	0.69	326.66	4,103.3	22.2	32.5	-11.2	0.16	
4,131.0	0.69	332.43	4,128.3	22.5	32.4	-11.5	0.28	
4,156.0	0.70	329.91	4,153.3	22.7	32.2	-11.8	0.13	
4,181.0	0.68	329.25	4,178.3	23.0	32.1	-12.1	0.09	
4,206.0	0.70	328.47	4,203.3	23.3	31.9	-12.4	0.09	
4,231.0	0.65	327.97	4,228.3	23.5	31.8	-12.7	0.20	
4,256.0	0.57	330.78	4,253.3	23.7	31.6	-12.9	0.34	
4,281.0	0.50	322.74	4,278.3	23.9	31.5	-13.1	0.41	
4,306.0	0.55	325.34	4,303.3	24.1	31.4	-13.4	0.22	
4,331.0	0.45	320.49	4,328.3	24.3	31.3	-13.6	0.43	
4,356.0	0.48	316.42	4,353.3	24.4	31.1	-13.8	0.18	
4,381.0	0.56	297.99	4,378.3	24.6	30.9	-13.9	0.74	
4,406.0	0.42	307.54	4,403.3	24.7	30.8	-14.1	0.65	
4,431.0	0.43	319.60	4,428.3	24.8	30.6	-14.3	0.36	
4,456.0	0.47	307.50	4,453.3	24.9	30.5	-14.4	0.41	
4,481.0	0.48	303.61	4,478.3	25.1	30.3	-14.6	0.14	
4,506.0	0.49	310.91	4,503.3	25.2	30.2	-14.8	0.25	
4,531.0	0.49	307.42	4,528.3	25.3	30.0	-15.0	0.12	
4,556.0	0.53	299.98	4,553.3	25.5	29.8	-15.1	0.31	
4,581.0	0.51	307.06	4,578.3	25.6	29.6	-15.3	0.27	
4,606.0	0.56	295.87	4,603.3	25.7	29.4	-15.5	0.46	
4,631.0	0.50	312.43	4,628.3	25.8	29.2	-15.7	0.66	
4,656.0	0.56	304.03	4,653.3	26.0	29.0	-15.8	0.39	
4,681.0	0.52	309.37	4,678.3	26.1	28.9	-16.0	0.26	

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Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
Project:	Doddridge County WV	TVD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard 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)	
4,706.0	0.50	311.73	4,703.3	26.3	28.7	-16.2	0.12	
4,731.0	0.61	306.00	4,728.3	26.4	28.5	-16.4	0.49	
4,756.0	0.80	33.56	4,753.3	26.6	28.5	-16.6	3.94	
4,781.0	1.59	49.39	4,778.3	27.0	28.8	-16.9	3.40	
4,806.0	2.63	55.78	4,803.3	27.5	29.6	-17.2	4.26	
4,831.0	3.56	54.65	4,828.2	28.3	30.7	-17.6	3.73	
4,856.0	4.24	54.15	4,853.2	29.3	32.1	-18.1	2.72	
4,881.0	5.06	55.05	4,878.1	30.5	33.7	-18.7	3.29	
4,906.0	5.81	55.73	4,903.0	31.8	35.7	-19.4	3.01	
4,931.0	6.70	56.73	4,927.8	33.3	37.9	-20.1	3.59	
4,956.0	7.59	57.57	4,952.6	35.0	40.5	-21.0	3.58	
4,981.0	8.30	57.79	4,977.4	36.9	43.5	-21.8	2.84	
5,006.0	9.15	58.33	5,002.1	38.9	46.7	-22.7	3.42	
5,031.0	9.89	58.32	5,026.8	41.0	50.2	-23.7	2.96	
5,056.0	10.79	58.88	5,051.3	43.4	54.0	-24.8	3.62	
5,081.0	11.40	59.66	5,075.9	45.8	58.2	-25.9	2.51	
5,106.0	12.32	59.70	5,100.3	48.4	62.6	-27.0	3.68	
5,131.0	12.54	59.62	5,124.8	51.2	67.3	-28.1	0.88	
5,156.0	12.67	59.63	5,149.2	53.9	72.0	-29.3	0.52	
5,181.0	13.40	59.53	5,173.5	56.8	76.8	-30.6	2.92	
5,206.0	13.78	59.54	5,197.8	59.7	81.9	-31.9	1.52	
5,231.0	14.42	59.28	5,222.1	62.8	87.1	-33.2	2.57	
5,256.0	14.81	59.15	5,246.3	66.1	92.5	-34.6	1.57	
5,281.0	15.66	59.21	5,270.4	69.4	98.2	-36.1	3.40	
5,306.0	15.65	59.49	5,294.4	72.9	104.0	-37.6	0.30	
5,331.0	16.87	59.64	5,318.4	76.4	110.0	-39.1	4.88	
5,356.0	16.89	60.87	5,342.4	80.0	116.3	-40.6	1.43	
5,381.0	17.64	62.37	5,366.2	83.6	122.9	-42.0	3.49	
5,406.0	17.95	64.33	5,390.0	87.0	129.7	-43.2	2.70	
5,431.0	18.64	66.09	5,413.8	90.3	136.8	-44.1	3.54	
5,456.0	19.15	68.21	5,437.4	93.4	144.3	-44.8	3.42	
5,481.0	19.51	69.62	5,461.0	96.4	152.0	-45.3	2.36	
5,506.0	20.26	70.98	5,484.5	99.2	160.0	-45.6	3.52	
5,531.0	20.90	71.55	5,507.9	102.1	168.3	-45.7	2.68	
5,556.0	21.06	71.87	5,531.3	104.9	176.8	-45.8	0.79	
5,581.0	21.61	72.01	5,554.6	107.7	185.5	-45.8	2.21	
5,606.0	21.62	72.20	5,577.8	110.5	194.2	-45.9	0.28	
5,631.0	22.17	72.29	5,601.0	113.4	203.1	-45.9	2.20	
5,656.0	22.54	72.56	5,624.1	116.2	212.2	-45.8	1.54	
5,681.0	22.02	73.36	5,647.3	119.0	221.2	-45.7	2.41	
5,706.0	22.85	73.45	5,670.4	121.7	230.4	-45.5	3.32	
5,731.0	23.40	73.45	5,693.4	124.5	239.8	-45.3	2.20	
5,756.0	23.27	73.58	5,716.3	127.4	249.3	-45.0	0.56	
5,781.0	24.04	73.89	5,739.2	130.2	258.9	-44.8	3.12	



Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
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Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard 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)
5,806.0	24.64	73.61	5,762.0	133.0	268.8	-44.5	2.44
5,831.0	24.50	73.75	5,784.7	136.0	278.8	-44.2	0.61
5,856.0	25.20	73.58	5,807.4	138.9	288.9	-44.0	2.81
5,881.0	25.76	73.51	5,830.0	142.0	299.2	-43.7	2.24
5,906.0	25.83	74.11	5,852.5	145.0	309.6	-43.4	1.08
5,931.0	25.75	74.80	5,875.0	147.9	320.1	-43.0	1.24
5,956.0	26.31	75.45	5,897.5	150.7	330.7	-42.4	2.51
5,981.0	26.23	76.06	5,919.9	153.5	341.4	-41.7	1.13
6,006.0	27.15	76.49	5,942.2	156.1	352.3	-40.9	3.76
6,031.0	26.82	76.56	5,964.5	158.8	363.4	-40.1	1.33
6,056.0	27.40	76.73	5,986.8	161.4	374.5	-39.2	2.34
6,081.0	27.87	76.60	6,008.9	164.1	385.7	-38.3	1.90
6,106.0	27.83	76.07	6,031.0	166.8	397.1	-37.5	1.00
6,131.0	27.21	75.71	6,053.2	169.6	408.3	-36.7	2.57
6,156.0	26.50	74.87	6,075.5	172.5	419.2	-36.1	3.22
6,181.0	26.21	74.45	6,097.9	175.4	429.9	-35.6	1.38
6,206.0	26.37	73.75	6,120.3	178.5	440.6	-35.3	1.40
6,231.0	26.92	73.42	6,142.6	181.6	451.3	-35.0	2.28
6,256.0	27.66	73.20	6,164.9	184.9	462.3	-34.8	2.99
6,281.0	28.14	72.98	6,187.0	188.3	473.5	-34.6	1.96
6,306.0	28.63	73.10	6,208.9	191.8	484.9	-34.4	1.97
6,331.0	28.72	72.93	6,230.9	195.3	496.3	-34.2	0.49
6,356.0	28.33	72.63	6,252.8	198.8	507.7	-34.1	1.66
6,381.0	27.52	72.19	6,274.9	202.4	518.9	-34.1	3.34
6,406.0	26.52	71.08	6,297.2	206.0	529.7	-34.2	4.48
6,431.0	26.40	71.07	6,319.6	209.6	540.2	-34.4	0.48
6,456.0	26.82	71.01	6,341.9	213.2	550.8	-34.6	1.68
6,481.0	27.34	71.20	6,364.2	216.9	561.6	-34.8	2.11
6,506.0	27.76	71.66	6,386.4	220.6	572.5	-35.0	1.88
6,531.0	27.51	71.94	6,408.5	224.2	583.5	-35.1	1.13
6,556.0	27.54	72.49	6,430.7	227.7	594.6	-35.1	1.02
6,581.0	27.52	72.30	6,452.9	231.2	605.6	-35.0	0.36
6,606.0	27.30	71.91	6,475.0	234.8	616.5	-35.1	1.14
6,631.0	27.20	71.74	6,497.3	238.3	627.4	-35.1	0.51
6,656.0	27.28	71.83	6,519.5	241.9	638.3	-35.2	0.36
6,681.0	27.42	72.15	6,541.7	245.5	649.2	-35.3	0.81
6,706.0	27.54	71.68	6,563.9	249.0	660.2	-35.3	0.99
6,731.0	27.58	71.47	6,586.0	252.7	671.1	-35.4	0.42
6,756.0	27.45	71.04	6,608.2	256.4	682.1	-35.6	0.95
6,781.0	27.30	70.73	6,630.4	260.2	692.9	-35.9	0.83
6,806.0	27.19	70.38	6,652.6	264.0	703.7	-36.2	0.78
6,831.0	26.73	70.00	6,674.9	267.8	714.4	-36.6	1.96
6,841.0	26.64	69.86	6,683.9	269.4	718.6	-36.8	1.10
6,928.0	26.44	69.20	6,761.7	283.0	755.0	-38.6	0.41

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Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
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Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard 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)	
6,958.0	26.97	68.52	6,788.5	287.8	767.6	-39.4	2.04	
6,988.0	27.33	66.83	6,815.2	293.0	780.3	-40.5	2.84	
7,018.0	27.23	62.40	6,841.9	298.9	792.7	-42.3	6.78	
7,048.0	26.54	56.02	6,868.6	305.8	804.3	-45.3	9.88	
7,078.0	26.26	53.04	6,895.5	313.6	815.2	-49.4	4.51	
7,107.0	25.58	58.89	6,921.6	320.7	825.7	-52.9	9.12	
7,137.0	25.31	68.72	6,948.7	326.3	837.2	-54.8	14.09	
7,167.0	26.35	77.93	6,975.7	330.1	849.7	-54.5	13.80	
7,189.0	27.61	84.93	6,995.3	331.5	859.5	-52.9	15.52	
Sycamore								
7,197.0	28.15	87.32	7,002.4	331.8	863.3	-52.0	15.52	
7,227.0	29.59	94.77	7,028.7	331.5	877.7	-47.3	12.91	
7,257.0	31.33	101.11	7,054.5	329.4	892.8	-40.7	12.18	
7,286.0	32.93	107.00	7,079.1	325.6	907.7	-32.6	12.12	
7,316.0	34.29	113.08	7,104.1	319.9	923.3	-22.4	12.09	
7,346.0	35.42	118.00	7,128.7	312.5	938.7	-10.6	10.10	
7,376.0	35.62	122.62	7,153.1	303.7	953.8	2.4	8.97	
7,382.0	35.86	123.51	7,158.0	301.8	956.7	5.1	9.59	
Middlesex								
7,406.0	36.90	126.98	7,177.3	293.6	968.3	16.5	9.59	
7,436.0	40.14	130.19	7,200.8	281.9	982.9	32.0	12.69	
7,465.0	44.00	132.02	7,222.3	269.2	997.5	48.7	13.96	
7,495.0	47.53	134.57	7,243.2	254.4	1,013.2	67.5	13.25	
7,525.0	50.56	137.23	7,262.9	238.1	1,028.9	87.8	12.12	
7,554.0	53.43	140.28	7,280.8	221.0	1,044.0	108.8	12.91	
7,557.0	53.81	140.42	7,282.5	219.1	1,045.5	111.0	13.24	
Burkett								
7,584.0	57.24	141.65	7,297.8	201.8	1,059.5	131.7	13.24	
7,598.0	59.27	141.99	7,305.2	192.4	1,066.9	142.9	14.68	
Tully								
7,614.0	61.60	142.37	7,313.1	181.4	1,075.4	156.0	14.68	
7,643.0	65.93	142.89	7,325.9	160.8	1,091.2	180.5	15.02	
7,673.0	70.00	144.11	7,337.1	138.4	1,107.7	206.8	14.08	
7,703.0	73.79	145.82	7,346.5	115.1	1,124.1	234.1	13.75	
7,733.0	80.09	148.10	7,353.2	90.6	1,140.0	262.2	22.27	
7,738.0	80.88	148.24	7,354.1	86.4	1,142.6	267.0	16.10	
Hamilton								
7,758.0	84.06	148.77	7,356.7	69.5	1,153.0	286.3	16.10	
7,816.0	91.18	151.10	7,359.1	19.4	1,182.0	342.9	12.91	
7,830.0	90.64	151.82	7,358.9	7.1	1,188.6	356.6	6.44	
Marcellus								
7,856.0	89.63	153.16	7,358.8	-16.0	1,200.7	382.2	6.44	
7,945.0	90.40	158.17	7,358.8	-97.0	1,237.3	470.6	5.70	
8,035.0	88.93	159.53	7,359.3	-181.0	1,269.8	560.5	2.23	
8,124.0	90.71	161.05	7,359.6	-264.8	1,299.8	649.4	2.63	

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Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard 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)	
8,214.0	90.44	160.97	7,358.7	-349.9	1,329.1	739.4	0.31	
8,303.0	89.63	161.81	7,358.6	-434.2	1,357.5	828.4	1.31	
8,393.0	91.01	166.84	7,358.1	-520.8	1,381.8	918.3	5.80	
8,483.0	90.10	168.61	7,357.3	-608.8	1,400.9	1,007.9	2.21	
8,572.0	90.03	171.01	7,357.2	-696.3	1,416.7	1,096.1	2.70	
8,662.0	91.11	171.32	7,356.3	-785.3	1,430.5	1,185.0	1.25	
8,751.0	90.47	167.91	7,355.0	-872.8	1,446.5	1,273.2	3.90	
8,845.0	89.87	164.27	7,354.8	-964.0	1,469.1	1,367.0	3.92	
8,939.0	89.50	162.71	7,355.3	-1,054.1	1,495.8	1,460.9	1.71	
9,033.0	89.66	162.94	7,356.0	-1,143.9	1,523.6	1,554.9	0.30	
9,127.0	91.65	164.47	7,354.9	-1,234.2	1,550.0	1,648.9	2.67	
9,220.0	90.87	163.16	7,352.8	-1,323.4	1,575.9	1,741.8	1.64	
9,314.0	89.83	162.84	7,352.3	-1,413.3	1,603.4	1,835.8	1.16	
9,409.0	90.10	162.01	7,352.3	-1,503.9	1,632.1	1,930.8	0.92	
9,503.0	89.53	161.73	7,352.6	-1,593.2	1,661.3	2,024.8	0.68	
9,597.0	89.97	160.78	7,353.0	-1,682.2	1,691.5	2,118.8	1.11	
9,691.0	90.47	162.32	7,352.7	-1,771.4	1,721.3	2,212.8	1.72	
9,785.0	90.37	162.25	7,352.0	-1,860.9	1,749.9	2,306.8	0.13	
9,875.0	90.44	161.98	7,351.4	-1,946.6	1,777.5	2,396.8	0.31	
9,964.0	90.20	162.17	7,350.9	-2,031.3	1,804.9	2,485.8	0.34	
10,054.0	90.94	163.53	7,350.0	-2,117.3	1,831.4	2,575.8	1.72	
10,143.0	90.30	161.90	7,349.0	-2,202.2	1,857.9	2,664.8	1.97	
10,233.0	90.50	161.40	7,348.4	-2,287.7	1,886.2	2,754.8	0.60	
10,323.0	89.70	161.21	7,348.2	-2,372.9	1,915.0	2,844.7	0.91	
10,412.0	90.67	161.87	7,347.9	-2,457.3	1,943.2	2,933.7	1.32	
10,502.0	90.13	161.86	7,347.3	-2,542.9	1,971.2	3,023.7	0.60	
10,591.0	90.87	163.71	7,346.5	-2,627.9	1,997.6	3,112.7	2.24	
10,681.0	90.10	163.13	7,345.8	-2,714.1	2,023.3	3,202.7	1.07	
10,770.0	90.67	162.50	7,345.2	-2,799.1	2,049.6	3,291.7	0.95	
10,860.0	90.77	161.16	7,344.0	-2,884.6	2,077.6	3,381.7	1.49	
10,949.0	90.34	162.06	7,343.2	-2,969.1	2,105.7	3,470.7	1.12	
11,039.0	90.37	162.20	7,342.6	-3,054.7	2,133.3	3,560.7	0.16	
11,129.0	90.44	162.62	7,342.0	-3,140.5	2,160.5	3,650.7	0.47	
11,218.0	89.87	161.61	7,341.7	-3,225.2	2,187.8	3,739.7	1.30	
11,308.0	89.56	162.94	7,342.2	-3,311.0	2,215.2	3,829.7	1.52	
11,397.0	90.17	161.98	7,342.4	-3,395.8	2,242.1	3,918.6	1.28	
11,487.0	90.37	163.43	7,342.0	-3,481.7	2,268.8	4,008.6	1.63	
11,576.0	91.11	162.43	7,340.8	-3,566.8	2,294.9	4,097.6	1.40	
11,665.0	91.04	162.22	7,339.2	-3,651.6	2,322.0	4,186.6	0.25	
11,755.0	90.60	162.15	7,337.9	-3,737.3	2,349.5	4,276.6	0.50	
11,845.0	89.80	162.38	7,337.5	-3,823.0	2,376.9	4,366.6	0.92	
11,934.0	91.34	161.56	7,336.7	-3,907.6	2,404.4	4,455.6	1.96	
12,024.0	90.40	161.74	7,335.3	-3,993.0	2,432.8	4,545.6	1.06	
12,113.0	90.13	162.46	7,334.9	-4,077.7	2,460.1	4,634.6	0.86	
12,203.0	91.28	163.55	7,333.8	-4,163.8	2,486.4	4,724.6	1.76	



EOW Completion Report



Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
Project:	Doddridge County WV	TVD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard Unit 1H	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)
12,292.0	90.67	163.64	7,332.3	-4,249.1	2,511.6	4,813.5	0.69
12,382.0	90.64	162.53	7,331.2	-4,335.2	2,537.8	4,903.5	1.23
12,471.0	90.07	162.17	7,330.7	-4,420.1	2,564.7	4,992.5	0.76
12,561.0	90.97	161.64	7,329.9	-4,505.6	2,592.7	5,082.5	1.16
12,651.0	90.60	161.23	7,328.6	-4,590.9	2,621.3	5,172.5	0.61
12,740.0	90.20	162.18	7,328.0	-4,675.4	2,649.3	5,261.5	1.16
12,830.0	89.93	161.73	7,327.9	-4,761.0	2,677.2	5,351.5	0.58
12,920.0	90.87	161.18	7,327.3	-4,846.3	2,705.8	5,441.5	1.21
13,009.0	90.54	162.09	7,326.2	-4,930.8	2,733.8	5,530.4	1.09
13,099.0	90.10	161.70	7,325.7	-5,016.3	2,761.8	5,620.4	0.65
13,188.0	90.10	163.54	7,325.5	-5,101.2	2,788.4	5,709.4	2.07
13,278.0	90.97	163.06	7,324.7	-5,187.4	2,814.2	5,799.4	1.10
13,368.0	90.67	163.49	7,323.4	-5,273.6	2,840.1	5,889.4	0.58
13,457.0	90.23	161.42	7,322.7	-5,358.5	2,867.0	5,978.4	2.38
13,547.0	91.08	161.58	7,321.7	-5,443.8	2,895.5	6,068.4	0.96
13,637.0	90.67	161.27	7,320.3	-5,529.1	2,924.2	6,158.3	0.57
13,726.0	89.46	159.12	7,320.2	-5,612.8	2,954.3	6,247.3	2.77
13,816.0	90.03	161.23	7,320.6	-5,697.5	2,984.8	6,337.2	2.43
13,905.0	90.54	163.31	7,320.2	-5,782.3	3,011.9	6,426.2	2.41
13,995.0	89.36	161.07	7,320.2	-5,868.0	3,039.5	6,516.2	2.81
14,085.0	90.57	163.65	7,320.3	-5,953.7	3,066.7	6,606.2	3.17
14,174.0	89.76	163.45	7,320.0	-6,039.1	3,091.9	6,695.2	0.94
14,264.0	90.81	162.47	7,319.6	-6,125.1	3,118.3	6,785.2	1.60
14,353.0	88.35	158.14	7,320.2	-6,208.9	3,148.3	6,874.1	5.60
14,443.0	89.50	159.98	7,321.9	-6,292.9	3,180.5	6,963.9	2.41
14,532.0	90.17	161.72	7,322.2	-6,377.0	3,209.7	7,052.9	2.09
14,622.0	90.30	163.30	7,321.8	-6,462.8	3,236.7	7,142.9	1.76
14,711.0	91.35	165.07	7,320.5	-6,548.4	3,261.0	7,231.8	2.31
14,800.0	90.07	162.19	7,319.4	-6,633.8	3,286.0	7,320.8	3.54
14,890.0	89.80	163.52	7,319.5	-6,719.8	3,312.6	7,410.8	1.51
14,979.0	91.71	164.78	7,318.4	-6,805.4	3,336.9	7,499.7	2.57
15,068.0	90.37	162.33	7,316.7	-6,890.8	3,362.1	7,588.7	3.14
15,158.0	89.03	161.05	7,317.2	-6,976.2	3,390.3	7,678.6	2.06
15,247.0	89.90	162.47	7,318.0	-7,060.7	3,418.2	7,767.6	1.87
15,337.0	91.92	163.95	7,316.6	-7,146.9	3,444.2	7,857.6	2.78
15,427.0	91.85	163.82	7,313.7	-7,233.3	3,469.1	7,947.5	0.16
15,516.0	89.29	159.85	7,312.8	-7,317.8	3,496.9	8,036.5	5.31
15,578.0	89.40	160.32	7,313.5	-7,376.1	3,518.0	8,098.4	0.78
15,636.0	89.40	160.32	7,314.1	-7,430.7	3,537.5	8,156.4	0.00

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Company:	Antero	Local Co-ordinate Reference:	Well Richard Unit 1H
Project:	Doddridge County WV	TVD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Site:	Hughes Pad:Belton/Carole/Earlewine/Gully/Hugh	MD Reference:	Precision 523: GL 1331' + KB 19' @ 1350.0usft
Well:	Richard Unit 1H	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		Comment
		+N/-S (usft)	+E/-W (usft)	
7,189.0	6,995.3	331.5	859.5	Sycamore
7,382.0	7,158.0	301.8	956.7	Middlesex
7,557.0	7,282.5	219.1	1,045.5	Burkett
7,598.0	7,305.2	192.4	1,066.9	Tully
7,738.0	7,354.1	86.4	1,142.6	Hamilton
7,830.0	7,358.9	7.1	1,188.6	Marcellus

Checked By: _____ Approved By: _____ Date: _____

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