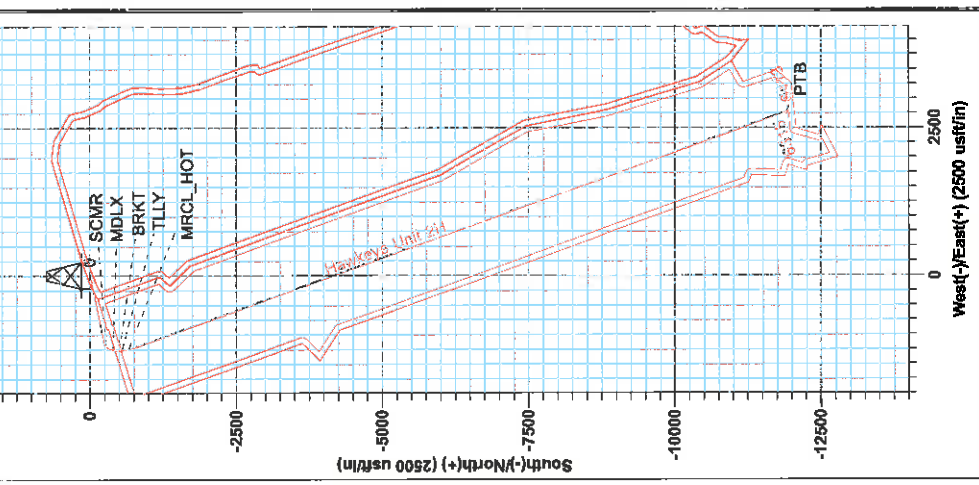


Azimuths to Grid North
 True North: 0.98°
 Magnetic North: -8.57°
 Magnetic Field
 Strength: 52240.56nT
 Dip Angle: 66.94°
 Date: 5/15/2015
 Model: BGGM2014

To convert Magnetic North to Grid, Subtract 8.57°
 To convert True North to Grid, Subtract 0.00°



Hawkeye Unit 2H
Tyler County WV
Northing: 14331721.12
Easting: 1681952.79
As Drilled

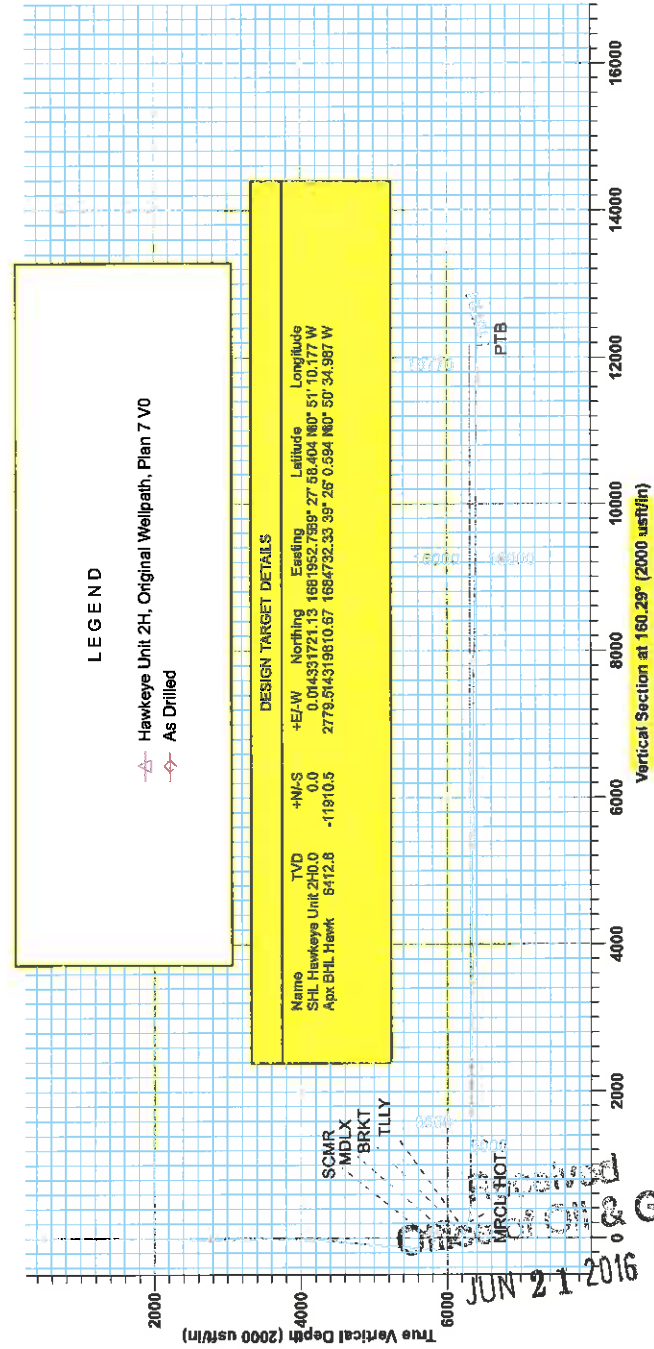


Gentle Lightfoot
 15:37, June 10 2015
 Scientific Drilling
 11220 NW 9th Street
 Yukon OK 73099

WELL DETAILS: Hawkeye Unit 2H	
Ground Level:	814.0
Eastings	1681952.799° 27' 58.404 160° 51' 10.177 W
Northings	14331721.12
+N/-S	0.0
+E/-W	0.0
Longitude	

SITE DETAILS: Weigle East Pact: Dean(Goodfellow/Hawkeye/Scardina)
 Site Centre Northing: 14331712.20
 Easting: 1681956.94
 Positional Uncertainty: 0.0
 Convergence: 0.09
 Local North: Grid

PROJECT DETAILS: Tyler County WV
 Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1983 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 17N (84 W to 78 W)
 System Datum: Mean Sea Level



DESIGN TARGET DETAILS			
Name	+N/-S	+E/-W	Northing
SHL Hawkeye Unit 2H0.0	0.0	0.014331721.13	1681952.799° 27' 58.404 160° 51' 10.177 W
Apx BHL Hawk	6412.8	2778.914319610.67	1684732.33 39° 26' 0.594 160° 50' 34.987 W
TVD			
SHL Hawkeye Unit 2H0.0	0.0		
Apx BHL Hawk	6412.8		

JUN 21 2016
 Original Oil & Gas



Antero

Tyler County WV

Weigle East Pad: Dean/Goodfellow/Hawkeye/Scardina

Hawkeye Unit 2H

Original Wellpath

Design: As Drilled

EOW Completion Report

10 June, 2015



10/28/2016



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523 GL 814' + KB 19' @ 833.0usft
Site:	Weigle East Pad Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523 GL 814' + KB 19' @ 833.0usft
Well:	Hawkeye Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Project	Tyler County WV, Tyler Co West Virginia		
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	Weigle East Pad Dean/Goodfellow/Hawkeye/Scardina				
Site Position:		Northing:	14,331,712.20 usft	Latitude:	39° 27' 58.315 N
From:	Map	Easting:	1,681,956.94 usft	Longitude:	80° 51' 10.125 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.09 °

Well	Hawkeye Unit 2H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,331,721.12 usft	Latitude:	39° 27' 58.404 N
	+E/-W	0.0 usft	Easting:	1,681,952.79 usft	Longitude:	80° 51' 10.177 W
Position Uncertainty		2.0 usft	Wellhead Elevation:	833.0 usft	Ground Level:	814.0 usft

Wellbore	Original Wellpath				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	5/15/2015	-8.47	66.94	52,241

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	160.29	

Survey Program	Date 6/10/2015				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
106.0	5,941.2	Survey #8 Def Gyro Survey to KOP (Origir	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
5,941.2	18,721.0	Survey #9 SDI 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
106.0	0.19	85.90	106.0	0.0	0.2	0.0	0.18
131.0	0.19	95.61	131.0	0.0	0.3	0.1	0.13
156.0	0.15	116.95	156.0	0.0	0.3	0.1	0.30
181.0	0.16	115.01	181.0	0.0	0.4	0.2	0.05
206.0	0.13	127.59	206.0	-0.1	0.4	0.2	0.17
231.0	0.13	157.02	231.0	-0.1	0.5	0.3	0.26
256.0	0.11	161.91	256.0	-0.2	0.5	0.3	0.09
281.0	0.10	166.86	281.0	-0.2	0.5	0.4	0.05
306.0	0.07	177.66	306.0	-0.2	0.5	0.4	0.14
331.0	0.08	238.42	331.0	-0.3	0.5	0.4	0.31



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523 GL 814' + KB 19' @ 833 0usft
Site:	Weigle East Pad. Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523. GL 814' + KB 19' @ 833 0usft
Well:	Hawkeye 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)
356.0	0.04	213.41	356.0	-0.3	0.5	0.4	0.19
381.0	0.03	225.84	381.0	-0.3	0.5	0.4	0.05
406.0	0.03	113.93	406.0	-0.3	0.5	0.4	0.20
431.0	0.03	221.70	431.0	-0.3	0.5	0.5	0.19
456.0	0.03	83.13	456.0	-0.3	0.5	0.5	0.22
481.0	0.03	271.57	481.0	-0.3	0.5	0.5	0.24
506.0	0.02	287.02	506.0	-0.3	0.5	0.4	0.05
531.0	0.04	305.54	531.0	-0.3	0.5	0.4	0.09
556.0	0.06	309.25	556.0	-0.3	0.4	0.4	0.08
581.0	0.42	291.23	581.0	-0.2	0.3	0.3	1.45
606.0	0.82	288.98	606.0	-0.2	0.1	0.2	1.60
631.0	1.09	290.08	631.0	0.0	-0.3	-0.1	1.08
656.0	1.32	284.39	656.0	0.1	-0.8	-0.4	1.04
681.0	1.98	272.24	681.0	0.2	-1.5	-0.7	2.97
706.0	2.79	266.38	706.0	0.2	-2.6	-1.1	3.38
731.0	3.36	264.42	730.9	0.1	-3.9	-1.4	2.32
756.0	3.92	262.96	755.9	-0.1	-5.5	-1.8	2.27
781.0	4.58	261.56	780.8	-0.3	-7.3	-2.1	2.67
806.0	4.85	261.19	805.7	-0.6	-9.3	-2.5	1.09
831.0	5.03	260.86	830.6	-1.0	-11.5	-2.9	0.73
856.0	5.14	260.63	855.5	-1.3	-13.7	-3.3	0.45
881.0	5.17	260.46	880.4	-1.7	-15.9	-3.7	0.13
906.0	5.22	260.89	905.3	-2.1	-18.1	-4.2	0.25
931.0	5.09	264.15	930.2	-2.4	-20.3	-4.6	1.28
956.0	5.00	265.99	955.1	-2.6	-22.5	-5.2	0.74
981.0	4.80	267.28	980.0	-2.7	-24.6	-5.8	0.91
1,006.0	4.19	268.14	1,005.0	-2.8	-26.6	-6.4	2.45
1,031.0	3.76	268.50	1,029.9	-2.8	-28.3	-6.9	1.72
1,056.0	3.68	268.13	1,054.8	-2.9	-30.0	-7.4	0.33
1,081.0	3.69	268.48	1,079.8	-2.9	-31.6	-7.9	0.10
1,106.0	3.84	267.83	1,104.7	-3.0	-33.2	-8.4	0.62
1,131.0	3.93	264.91	1,129.7	-3.1	-34.9	-8.9	0.87
1,156.0	3.98	264.51	1,154.6	-3.2	-36.6	-9.3	0.23
1,181.0	3.78	266.36	1,179.6	-3.4	-38.3	-9.8	0.94
1,206.0	3.51	266.98	1,204.5	-3.5	-39.9	-10.2	1.09
1,231.0	3.22	266.51	1,229.5	-3.5	-41.4	-10.6	1.17
1,256.0	2.92	267.40	1,254.4	-3.6	-42.7	-11.0	1.22
1,281.0	2.81	266.42	1,279.4	-3.7	-43.9	-11.4	0.48
1,306.0	2.57	266.74	1,304.4	-3.7	-45.1	-11.7	0.96
1,331.0	2.38	267.31	1,329.4	-3.8	-46.2	-12.0	0.77
1,356.0	2.32	265.63	1,354.3	-3.9	-47.2	-12.3	0.37
1,381.0	2.19	267.52	1,379.3	-3.9	-48.2	-12.8	0.60
1,406.0	1.94	270.47	1,404.3	-3.9	-49.1	-13.1	1.09
1,431.0	1.81	270.40	1,429.3	-3.9	-49.1	-13.1	0.52

Received
Office of Oil & Gas

JUN 21 2016



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523: GL 814' + KB 19' @ 833 0usft
Site:	Weigle East Pad. Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523: GL 814' + KB 19' @ 833 0usft
Well:	Hawkeye 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)
1,456.0	1.75	269.33	1,454.3	-3.9	-50.7	-13.4	0.27
1,481.0	1.52	271.20	1,479.3	-3.9	-51.4	-13.6	0.94
1,506.0	1.47	273.80	1,504.2	-3.9	-52.1	-13.9	0.34
1,531.0	1.30	271.38	1,529.2	-3.9	-52.7	-14.1	0.72
1,556.0	1.15	271.72	1,554.2	-3.9	-53.2	-14.3	0.60
1,581.0	0.88	272.14	1,579.2	-3.8	-53.6	-14.5	1.08
1,606.0	0.67	267.09	1,604.2	-3.8	-54.0	-14.6	0.88
1,631.0	0.63	264.89	1,629.2	-3.9	-54.3	-14.7	0.19
1,656.0	0.57	263.04	1,654.2	-3.9	-54.5	-14.7	0.25
1,681.0	0.54	264.86	1,679.2	-3.9	-54.8	-14.8	0.14
1,706.0	0.27	263.52	1,704.2	-3.9	-54.9	-14.8	1.08
1,731.0	0.33	261.88	1,729.2	-4.0	-55.1	-14.8	0.24
1,756.0	0.25	257.66	1,754.2	-4.0	-55.2	-14.9	0.33
1,781.0	0.27	266.50	1,779.2	-4.0	-55.3	-14.9	0.18
1,806.0	0.33	261.11	1,804.2	-4.0	-55.4	-14.9	0.26
1,831.0	0.32	257.10	1,829.2	-4.0	-55.6	-14.9	0.10
1,856.0	0.22	254.89	1,854.2	-4.1	-55.7	-15.0	0.40
1,881.0	0.25	273.93	1,879.2	-4.1	-55.8	-15.0	0.33
1,906.0	0.28	263.06	1,904.2	-4.1	-55.9	-15.0	0.23
1,931.0	0.30	258.13	1,929.2	-4.1	-56.0	-15.0	0.13
1,956.0	0.35	264.32	1,954.2	-4.1	-56.2	-15.1	0.24
1,981.0	0.28	272.32	1,979.2	-4.1	-56.3	-15.1	0.33
2,006.0	0.32	271.36	2,004.2	-4.1	-56.4	-15.2	0.16
2,031.0	0.34	268.81	2,029.2	-4.1	-56.6	-15.2	0.10
2,056.0	0.22	271.74	2,054.2	-4.1	-56.7	-15.2	0.48
2,081.0	0.23	284.42	2,079.2	-4.1	-56.8	-15.3	0.20
2,106.0	0.14	291.50	2,104.2	-4.1	-56.9	-15.3	0.37
2,131.0	0.19	267.23	2,129.2	-4.1	-56.9	-15.4	0.34
2,156.0	0.32	271.97	2,154.2	-4.1	-57.0	-15.4	0.53
2,181.0	0.10	258.13	2,179.2	-4.1	-57.1	-15.4	0.90
2,206.0	0.22	248.28	2,204.2	-4.1	-57.2	-15.4	0.49
2,231.0	0.29	276.94	2,229.2	-4.1	-57.3	-15.5	0.57
2,256.0	0.20	249.99	2,254.2	-4.1	-57.4	-15.5	0.58
2,281.0	0.17	251.64	2,279.2	-4.1	-57.5	-15.5	0.12
2,306.0	0.31	271.69	2,304.2	-4.1	-57.6	-15.5	0.64
2,331.0	0.24	258.41	2,329.2	-4.2	-57.7	-15.6	0.38
2,356.0	0.32	273.53	2,354.2	-4.2	-57.8	-15.6	0.43
2,381.0	0.27	272.22	2,379.2	-4.2	-58.0	-15.6	0.20
2,406.0	0.29	271.42	2,404.2	-4.2	-58.1	-15.7	0.08
2,431.0	0.25	276.72	2,429.2	-4.1	-58.2	-15.7	0.19
2,456.0	0.23	276.09	2,454.2	-4.1	-58.3	-15.8	0.08
2,481.0	0.18	250.04	2,479.2	-4.1	-58.4	-15.8	0.42
2,506.0	0.27	261.03	2,504.2	-4.2	-58.5	-15.8	0.40
2,531.0	0.26	259.26	2,529.2	-4.2	-58.6	-15.8	0.05
2,556.0	0.24	265.25	2,554.2	-4.2	-58.7	-15.8	0.13



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523' GL 814' + KB 19' @ 833.0usft
Site:	Weigle East Pad. Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523' GL 814' + KB 19' @ 833.0usft
Well:	Hawkeye 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)
2,581.0	0.17	250.07	2,579.2	-4.2	-58.8	-15.9	0.35
2,606.0	0.31	263.81	2,604.2	-4.2	-58.9	-15.9	0.60
2,631.0	0.44	262.76	2,629.2	-4.3	-59.1	-15.9	0.52
2,656.0	0.33	268.37	2,654.2	-4.3	-59.2	-16.0	0.46
2,681.0	0.36	258.57	2,679.2	-4.3	-59.4	-16.0	0.26
2,706.0	0.34	282.41	2,704.2	-4.3	-59.5	-16.0	0.58
2,731.0	0.35	282.55	2,729.2	-4.3	-59.7	-16.1	0.04
2,756.0	0.46	265.41	2,754.2	-4.2	-59.8	-16.2	0.65
2,781.0	0.23	261.91	2,779.2	-4.3	-60.0	-16.2	0.92
2,806.0	0.44	266.81	2,804.2	-4.3	-60.1	-16.3	0.85
2,831.0	0.45	279.69	2,829.2	-4.3	-60.3	-16.3	0.40
2,856.0	0.27	266.10	2,854.2	-4.2	-60.5	-16.4	0.79
2,881.0	0.36	254.96	2,879.2	-4.3	-60.6	-16.4	0.43
2,906.0	0.36	268.69	2,904.2	-4.3	-60.8	-16.5	0.34
2,931.0	0.60	264.52	2,929.2	-4.3	-61.0	-16.5	0.97
2,956.0	0.48	279.25	2,954.2	-4.3	-61.2	-16.6	0.73
2,981.0	0.39	262.45	2,979.2	-4.3	-61.4	-16.7	0.62
3,006.0	0.41	255.87	3,004.2	-4.3	-61.6	-16.7	0.20
3,031.0	0.33	266.29	3,029.2	-4.4	-61.7	-16.7	0.42
3,056.0	0.27	282.81	3,054.2	-4.4	-61.9	-16.8	0.42
3,081.0	0.37	270.15	3,079.2	-4.3	-62.0	-16.8	0.49
3,106.0	0.40	266.50	3,104.2	-4.3	-62.2	-16.9	0.15
3,131.0	0.46	199.40	3,129.2	-4.4	-62.3	-16.8	1.91
3,156.0	1.52	170.49	3,154.2	-4.9	-62.3	-16.4	4.56
3,181.0	2.46	166.41	3,179.2	-5.7	-62.1	-15.6	3.80
3,206.0	3.29	166.04	3,204.2	-6.9	-61.8	-14.3	3.32
3,231.0	3.81	167.44	3,229.1	-8.4	-61.4	-12.8	2.11
3,256.0	3.98	167.18	3,254.0	-10.1	-61.1	-11.1	0.68
3,281.0	4.06	170.51	3,279.0	-11.8	-60.7	-9.4	0.99
3,306.0	4.17	177.78	3,303.9	-13.6	-60.5	-7.6	2.13
3,331.0	4.28	187.67	3,328.9	-15.4	-60.6	-5.9	2.94
3,356.0	4.38	196.88	3,353.8	-17.3	-61.0	-4.3	2.81
3,381.0	4.61	207.55	3,378.7	-19.1	-61.8	-2.9	3.46
3,406.0	4.93	218.05	3,403.6	-20.8	-62.9	-1.6	3.71
3,431.0	5.44	226.43	3,428.5	-22.5	-64.4	-0.6	3.65
3,456.0	5.89	232.70	3,453.4	-24.1	-66.3	0.3	3.06
3,481.0	6.67	240.84	3,478.2	-25.5	-68.6	0.9	4.73
3,506.0	7.34	247.56	3,503.1	-26.9	-71.3	1.2	4.23
3,531.0	8.06	253.63	3,527.8	-28.0	-74.5	1.2	4.34
3,556.0	8.75	259.00	3,552.6	-28.8	-78.0	0.8	4.18
3,581.0	9.47	262.16	3,577.3	-29.5	-82.0	0.1	3.51
3,606.0	10.39	264.34	3,601.9	-30.0	-86.2	-0.9	3.97
3,631.0	11.17	265.55	3,626.4	-30.4	-90.9	-2.1	3.25
3,656.0	11.93	266.88	3,650.9	-30.7	-95.9	-3.4	3.22



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523 GL 814' + KB 19' @ 833.0usft
Site:	Weigle East Pad: Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523. GL 814' + KB 19' @ 833.0usft
Well:	Hawkeye 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)
3,681.0	12.77	267.31	3,675.4	-31.0	-101.2	-5.0	3.38
3,706.0	13.26	267.83	3,699.7	-31.2	-106.8	-6.6	2.02
3,731.0	13.95	267.76	3,724.0	-31.4	-112.7	-8.4	2.76
3,756.0	14.40	267.03	3,748.2	-31.7	-118.8	-10.2	1.94
3,781.0	15.31	265.74	3,772.4	-32.1	-125.2	-12.0	3.87
3,806.0	16.05	264.99	3,796.5	-32.7	-132.0	-13.7	3.07
3,831.0	16.54	264.37	3,820.5	-33.3	-139.0	-15.5	2.08
3,856.0	15.72	262.67	3,844.5	-34.1	-145.9	-17.1	3.78
3,881.0	14.00	259.97	3,868.7	-35.1	-152.2	-18.3	7.41
3,906.0	12.85	256.73	3,893.0	-36.2	-157.9	-19.1	5.50
3,931.0	12.12	253.67	3,917.4	-37.6	-163.1	-19.6	3.94
3,956.0	12.22	252.56	3,941.8	-39.1	-168.1	-19.9	1.02
3,981.0	12.91	252.50	3,966.2	-40.8	-173.3	-20.1	2.76
4,006.0	13.40	252.59	3,990.6	-42.5	-178.8	-20.3	1.96
4,031.0	14.36	252.52	4,014.8	-44.3	-184.5	-20.5	3.84
4,056.0	15.35	253.12	4,039.0	-46.2	-190.6	-20.8	4.01
4,081.0	16.34	253.47	4,063.0	-48.1	-197.1	-21.2	3.98
4,106.0	17.41	254.23	4,087.0	-50.1	-204.1	-21.6	4.37
4,131.0	18.30	255.17	4,110.8	-52.2	-211.5	-22.2	3.74
4,156.0	18.97	255.76	4,134.5	-54.2	-219.2	-22.9	2.78
4,181.0	19.84	256.53	4,158.0	-56.2	-227.3	-23.8	3.63
4,206.0	20.65	257.25	4,181.5	-58.1	-235.7	-24.8	3.39
4,231.0	21.37	257.44	4,204.8	-60.1	-244.5	-25.9	2.89
4,256.0	22.07	257.63	4,228.1	-62.1	-253.5	-27.1	2.81
4,281.0	22.75	257.70	4,251.2	-64.1	-262.8	-28.3	2.72
4,306.0	23.47	258.07	4,274.2	-66.2	-272.4	-29.6	2.94
4,331.0	24.33	258.83	4,297.0	-68.2	-282.3	-31.0	3.65
4,356.0	25.21	258.96	4,319.7	-70.2	-292.6	-32.6	3.53
4,381.0	26.19	258.77	4,342.2	-72.3	-303.3	-34.2	3.93
4,406.0	27.07	258.62	4,364.6	-74.5	-314.2	-35.8	3.53
4,431.0	28.16	258.23	4,386.7	-76.8	-325.6	-37.5	4.42
4,456.0	28.55	258.04	4,408.7	-79.3	-337.2	-39.1	1.60
4,481.0	28.99	257.99	4,430.7	-81.8	-349.0	-40.7	1.76
4,506.0	29.14	257.63	4,452.5	-84.3	-360.9	-42.3	0.92
4,531.0	28.66	257.17	4,474.4	-87.0	-372.6	-43.8	2.12
4,556.0	28.12	256.91	4,496.4	-89.6	-384.2	-45.2	2.22
4,581.0	28.26	257.56	4,518.4	-92.3	-395.7	-46.6	1.35
4,606.0	28.59	258.69	4,540.4	-94.7	-407.4	-48.2	2.52
4,631.0	29.16	259.13	4,562.3	-97.0	-419.2	-50.1	2.43
4,656.0	30.08	259.83	4,584.0	-99.3	-431.4	-52.0	3.93
4,681.0	30.69	260.63	4,605.6	-101.4	-443.8	-54.2	2.93
4,706.0	31.24	261.08	4,627.0	-103.5	-456.5	-56.6	2.39
4,731.0	31.83	261.36	4,648.3	-105.5	-469.1	-59.1	2.43
4,756.0	32.18	261.51	4,669.5	-107.4	-482.6	-61.6	1.44

Produced
Office of Oil & Gas
JUN 21 2016



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523: GL 814' + KB 19' @ 833.0usft
Site:	Weigle East Pad: Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523: GL 814' + KB 19' @ 833.0usft
Well:	Hawkeye 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)
4,781.0	32.26	261.50	4,690.7	-109.4	-495.8	-64.2	0.32
4,806.0	32.65	261.63	4,711.8	-111.4	-509.0	-66.8	1.58
4,831.0	32.39	261.07	4,732.9	-113.4	-522.3	-69.4	1.59
4,856.0	32.26	260.54	4,754.0	-115.5	-535.5	-71.8	1.25
4,881.0	32.37	260.24	4,775.1	-117.8	-548.7	-74.2	0.78
4,906.0	32.26	259.90	4,796.2	-120.1	-561.9	-76.5	0.85
4,931.0	31.73	259.27	4,817.5	-122.5	-574.9	-78.6	2.51
4,956.0	31.58	258.77	4,838.7	-125.0	-587.8	-80.6	1.21
4,981.0	31.49	258.52	4,860.0	-127.5	-600.6	-82.5	0.63
5,006.0	31.59	258.61	4,881.3	-130.1	-613.4	-84.4	0.44
5,031.0	31.34	259.07	4,902.7	-132.6	-626.2	-86.3	1.39
5,056.0	30.98	259.14	4,924.1	-135.1	-638.9	-88.3	1.45
5,081.0	30.48	258.83	4,945.6	-137.5	-651.4	-90.2	2.10
5,106.0	30.13	258.07	4,967.1	-140.1	-663.8	-92.0	2.08
5,131.0	29.49	257.64	4,988.8	-142.7	-675.9	-93.7	2.70
5,156.0	29.14	257.28	5,010.6	-145.3	-687.9	-95.2	1.57
5,181.0	29.46	256.96	5,032.4	-148.1	-699.8	-96.6	1.43
5,206.0	29.19	256.72	5,054.2	-150.8	-711.7	-98.0	1.18
5,231.0	29.24	256.64	5,076.0	-153.7	-723.6	-99.4	0.25
5,256.0	29.32	257.04	5,097.9	-156.4	-735.5	-100.8	0.85
5,281.0	29.18	257.75	5,119.7	-159.1	-747.4	-102.3	1.50
5,306.0	29.35	258.31	5,141.5	-161.6	-759.4	-103.9	1.29
5,331.0	29.19	258.59	5,163.3	-164.1	-771.4	-105.7	0.84
5,356.0	28.90	258.58	5,185.1	-166.5	-783.3	-107.4	1.16
5,381.0	29.00	258.62	5,207.0	-168.9	-795.1	-109.2	0.41
5,406.0	28.41	258.51	5,228.9	-171.3	-806.9	-110.9	2.37
5,431.0	28.70	258.40	5,250.9	-173.7	-818.6	-112.6	1.18
5,456.0	28.74	258.55	5,272.8	-176.1	-830.4	-114.3	0.33
5,481.0	29.27	258.30	5,294.7	-178.5	-842.3	-116.0	2.17
5,506.0	29.75	258.62	5,316.4	-181.0	-854.3	-117.8	2.02
5,531.0	30.43	258.74	5,338.1	-183.4	-866.6	-119.6	2.73
5,556.0	30.56	258.24	5,359.6	-185.9	-879.0	-121.4	1.14
5,581.0	29.91	257.80	5,381.2	-188.6	-891.4	-123.1	2.75
5,606.0	29.31	257.21	5,403.0	-191.2	-903.4	-124.7	2.67
5,631.0	28.83	256.76	5,424.8	-194.0	-915.3	-126.1	2.11
5,656.0	28.26	257.10	5,446.8	-196.7	-926.9	-127.5	2.37
5,681.0	28.35	257.43	5,468.8	-199.3	-938.5	-128.9	0.72
5,706.0	29.02	257.84	5,490.7	-201.8	-950.2	-130.4	2.79
5,731.0	29.15	258.29	5,512.6	-204.4	-962.1	-132.1	1.02
5,756.0	29.69	258.49	5,534.3	-206.8	-974.1	-133.8	2.20
5,781.0	29.89	258.33	5,556.0	-209.3	-986.3	-135.6	0.86
5,806.0	29.79	258.05	5,577.7	-211.9	-998.4	-137.3	0.69
5,831.0	29.38	257.98	5,599.5	-214.4	-1,010.5	-138.9	1.65
5,856.0	29.34	258.40	5,621.2	-216.9	-1,022.5	-140.6	0.84



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
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Site:	Weigle East Pad: Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523. GL 814' + KB 19' @ 833.0usft
Well:	Hawkeye 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)
5,881.0	29.58	259.45	5,643.0	-219.3	-1,034.6	-142.5	2.28
5,906.0	29.65	260.33	5,664.7	-221.5	-1,046.7	-144.5	1.76
5,931.0	29.22	260.62	5,686.5	-223.5	-1,058.9	-146.7	1.81
5,941.2	28.90	260.53	5,695.4	-224.3	-1,063.7	-147.6	3.18
5,967.0	27.70	259.28	5,718.1	-226.5	-1,075.8	-149.6	5.18
5,997.0	27.33	258.13	5,744.8	-229.2	-1,089.4	-151.7	2.16
6,027.0	27.43	259.02	5,771.4	-231.9	-1,102.9	-153.6	1.40
6,057.0	27.32	260.55	5,798.0	-234.4	-1,116.5	-155.9	2.37
6,087.0	26.91	259.95	5,824.7	-236.7	-1,129.9	-158.3	1.64
6,117.0	27.01	255.00	5,851.5	-239.6	-1,143.2	-160.0	7.49
6,146.0	28.01	245.91	5,877.2	-244.1	-1,155.8	-160.0	14.87
6,176.0	29.35	235.36	5,903.6	-251.2	-1,168.3	-157.6	17.44
6,206.0	30.97	225.08	5,929.5	-260.8	-1,179.8	-152.4	18.02
6,231.0	32.24	220.69	5,950.8	-270.4	-1,188.7	-146.3	10.51
SCMR							
6,236.0	32.51	219.85	5,955.0	-272.4	-1,190.4	-145.0	10.51
6,266.0	33.50	215.91	5,980.2	-285.3	-1,200.5	-136.2	7.88
6,296.0	35.40	212.74	6,004.9	-299.4	-1,210.0	-126.3	8.71
6,325.0	37.16	208.50	6,028.3	-314.1	-1,218.7	-115.3	10.57
6,355.0	39.05	202.93	6,051.9	-330.8	-1,226.8	-102.3	13.07
6,385.0	40.48	198.29	6,075.0	-348.7	-1,233.5	-87.7	10.98
6,415.0	42.30	194.39	6,097.5	-367.8	-1,239.1	-71.7	10.52
6,445.0	43.09	192.05	6,119.5	-387.6	-1,243.7	-54.6	5.91
6,450.0	43.31	191.71	6,123.2	-390.9	-1,244.4	-51.7	6.39
MDLX							
6,475.0	44.41	190.04	6,141.2	-407.9	-1,247.7	-36.8	6.39
6,504.0	47.09	187.89	6,161.4	-428.5	-1,250.9	-18.5	10.66
6,534.0	51.17	184.83	6,181.1	-451.0	-1,253.4	1.8	15.63
6,564.0	55.64	181.47	6,199.0	-475.0	-1,254.7	24.0	17.40
6,594.0	59.38	180.31	6,215.1	-500.3	-1,255.1	47.7	12.89
6,598.0	59.70	180.01	6,217.1	-503.8	-1,255.1	51.0	10.18
BRKT							
6,624.0	61.78	178.14	6,229.8	-526.5	-1,254.7	72.4	10.18
6,648.0	64.09	176.60	6,240.7	-547.8	-1,253.7	92.9	11.20
TLLY							
6,654.0	64.67	176.22	6,243.3	-553.2	-1,253.4	98.1	11.20
6,683.0	67.49	173.86	6,255.1	-579.6	-1,251.1	123.7	12.24
6,713.0	70.09	172.08	6,265.9	-607.4	-1,247.7	151.0	10.28
6,743.0	72.38	170.90	6,275.6	-635.4	-1,243.5	178.8	8.49
6,772.0	74.97	169.59	6,283.7	-662.9	-1,238.8	206.2	9.92
MRCL_HOT							
6,773.0	75.06	169.55	6,284.0	-663.8	-1,238.6	207.2	9.92
6,803.0	77.08	168.45	6,291.2	-692.4	-1,233.0	236.0	7.62
6,833.0	79.42	166.39	6,297.3	-721.1	-1,226.6	265.1	10.30
6,862.0	81.56	164.54	6,302.1	-748.7	-1,219.5	293.6	9.70



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Well:	Hawkeye 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)
6,892.0	84.03	162.69	6,305.9	-777.3	-1,211.1	323.3	10.26
6,922.0	87.58	160.88	6,308.1	-805.7	-1,201.7	353.2	13.27
6,950.0	89.20	160.66	6,308.9	-832.1	-1,192.5	381.2	5.84
6,992.0	89.03	159.66	6,309.5	-871.6	-1,178.2	423.2	2.41
7,082.0	89.03	161.23	6,311.0	-956.4	-1,148.1	513.2	1.74
7,172.0	89.83	162.46	6,311.9	-1,041.9	-1,120.1	603.1	1.63
7,261.0	90.13	161.93	6,312.0	-1,126.7	-1,092.9	692.1	0.68
7,351.0	89.87	159.20	6,312.0	-1,211.5	-1,062.9	782.1	3.05
7,440.0	90.30	158.65	6,311.8	-1,294.6	-1,030.9	871.1	0.78
7,530.0	90.27	160.51	6,311.4	-1,378.9	-999.5	961.0	2.07
7,619.0	89.43	160.71	6,311.6	-1,462.9	-970.0	1,050.0	0.97
7,709.0	88.56	159.79	6,313.2	-1,547.6	-939.6	1,140.0	1.41
7,799.0	88.36	159.23	6,315.6	-1,631.8	-908.1	1,230.0	0.66
7,888.0	89.43	160.24	6,317.3	-1,715.3	-877.3	1,319.0	1.65
7,978.0	89.97	161.57	6,317.8	-1,800.4	-847.8	1,409.0	1.59
8,067.0	89.29	159.79	6,318.4	-1,884.3	-818.4	1,497.9	2.14
8,157.0	89.77	160.97	6,319.1	-1,969.1	-788.1	1,587.9	1.42
8,247.0	89.36	158.49	6,319.8	-2,053.5	-757.0	1,677.9	2.79
8,336.0	90.00	157.91	6,320.3	-2,136.2	-723.9	1,766.9	0.97
8,426.0	88.59	161.33	6,321.4	-2,220.5	-692.6	1,856.8	4.11
8,515.0	89.26	161.01	6,323.1	-2,304.7	-663.9	1,945.8	0.83
8,605.0	89.90	160.47	6,323.7	-2,389.7	-634.2	2,035.8	0.93
8,694.0	90.23	161.51	6,323.6	-2,473.8	-605.2	2,124.8	1.23
8,784.0	88.86	160.90	6,324.3	-2,559.0	-576.2	2,214.8	1.67
8,873.0	88.96	160.79	6,326.0	-2,643.1	-547.0	2,303.8	0.17
8,963.0	90.54	160.84	6,326.4	-2,728.1	-517.4	2,393.8	1.76
9,052.0	88.59	158.43	6,327.1	-2,811.5	-486.5	2,482.7	3.48
9,141.0	89.40	160.67	6,328.7	-2,894.9	-455.4	2,571.7	2.68
9,231.0	90.00	161.27	6,329.1	-2,980.0	-426.0	2,661.7	0.94
9,320.0	89.36	158.38	6,329.6	-3,063.5	-395.3	2,750.7	3.33
9,410.0	89.43	158.09	6,330.6	-3,147.1	-362.0	2,840.6	0.33
9,500.0	89.43	161.17	6,331.5	-3,231.4	-330.6	2,930.6	3.42
9,589.0	89.76	161.60	6,332.1	-3,315.8	-302.2	3,019.6	0.61
9,679.0	90.10	161.49	6,332.2	-3,401.1	-273.7	3,109.6	0.40
9,769.0	89.50	159.16	6,332.5	-3,485.9	-243.4	3,199.5	2.67
9,858.0	88.89	158.01	6,333.8	-3,568.7	-210.9	3,288.5	1.46
9,948.0	89.19	160.81	6,335.3	-3,653.0	-179.3	3,378.5	3.13
10,037.0	90.03	160.39	6,335.9	-3,736.9	-149.7	3,467.5	1.06
10,127.0	89.23	160.47	6,336.5	-3,821.7	-119.6	3,557.5	0.89
10,216.0	89.33	160.68	6,337.6	-3,905.6	-90.0	3,646.5	0.26
10,306.0	89.53	160.04	6,338.5	-3,990.4	-59.8	3,736.4	0.74
10,395.0	89.40	160.10	6,339.3	-4,074.1	-29.0	3,825.4	0.16
10,485.0	89.63	159.95	6,340.1	-4,158.6	1.3	3,915.4	0.31
10,574.0	89.50	159.36	6,340.8	-4,242.1	32.3	4,004.4	0.68

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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
10,664.0	88.69	161.86	6,342.2	-4,327.0	62.1	4,094.4	2.92
10,754.0	89.10	161.33	6,343.9	-4,412.3	90.6	4,184.4	0.74
10,843.0	89.08	160.89	6,345.3	-4,496.5	119.4	4,273.3	0.49
10,933.0	89.30	161.12	6,346.6	-4,581.6	148.7	4,363.3	0.35
11,022.0	89.03	161.17	6,347.9	-4,665.8	177.4	4,452.3	0.31
11,112.0	89.70	161.37	6,348.9	-4,751.1	206.3	4,542.3	0.78
11,202.0	89.16	160.37	6,349.8	-4,836.1	235.8	4,632.3	1.26
11,291.0	89.20	158.66	6,351.1	-4,919.5	266.9	4,721.3	1.92
11,381.0	89.80	160.45	6,351.9	-5,003.8	298.4	4,811.2	2.10
11,471.0	90.13	159.65	6,351.9	-5,088.4	329.1	4,901.2	0.96
11,560.0	88.86	159.36	6,352.7	-5,171.7	360.2	4,990.2	1.46
11,650.0	88.89	159.34	6,354.5	-5,255.9	392.0	5,080.2	0.04
11,739.0	90.13	161.43	6,355.2	-5,339.8	421.9	5,169.2	2.73
11,829.0	89.93	161.00	6,355.2	-5,425.0	450.8	5,259.2	0.53
11,918.0	89.26	158.88	6,355.8	-5,508.6	481.4	5,348.2	2.50
12,008.0	89.63	159.93	6,356.7	-5,592.8	513.0	5,438.2	1.24
12,098.0	89.56	160.23	6,357.3	-5,677.4	543.7	5,528.2	0.34
12,187.0	90.13	159.76	6,357.6	-5,761.1	574.1	5,617.1	0.83
12,277.0	89.63	161.43	6,357.7	-5,845.9	604.0	5,707.1	1.94
12,366.0	89.56	161.12	6,358.4	-5,930.2	632.6	5,796.1	0.36
12,456.0	89.16	159.31	6,359.4	-6,014.9	663.1	5,886.1	2.06
12,545.0	90.03	160.59	6,360.0	-6,098.5	693.6	5,975.1	1.74
12,635.0	89.50	158.19	6,360.4	-6,182.7	725.2	6,065.1	2.73
12,724.0	89.60	159.67	6,361.1	-6,266.8	757.2	6,154.1	1.67
12,814.0	89.70	160.86	6,361.6	-6,350.5	787.6	6,244.1	1.33
12,904.0	89.70	162.24	6,362.1	-6,435.9	816.1	6,334.0	1.53
12,993.0	89.29	160.91	6,362.9	-6,520.3	844.2	6,423.0	1.56
13,083.0	89.09	160.14	6,364.2	-6,605.1	874.2	6,513.0	0.88
13,173.0	88.76	158.55	6,365.8	-6,689.3	906.0	6,603.0	1.80
13,262.0	89.73	161.66	6,367.0	-6,773.0	936.3	6,691.9	3.66
13,352.0	89.97	161.29	6,367.2	-6,858.3	964.9	6,781.9	0.49
13,442.0	90.03	160.09	6,367.2	-6,943.3	994.6	6,871.9	1.33
13,531.0	90.50	159.58	6,366.8	-7,026.8	1,025.3	6,960.9	0.78
13,621.0	90.07	161.11	6,366.4	-7,111.6	1,055.6	7,050.9	1.77
13,710.0	90.13	160.78	6,366.2	-7,195.7	1,084.6	7,139.9	0.38
13,800.0	89.93	160.44	6,366.2	-7,280.6	1,114.5	7,229.9	0.44
13,890.0	88.89	159.42	6,367.1	-7,365.1	1,145.4	7,319.9	1.62
13,979.0	89.40	159.45	6,368.4	-7,448.4	1,176.6	7,408.9	0.57
14,069.0	88.82	160.39	6,369.8	-7,533.0	1,207.5	7,498.9	1.23
14,158.0	89.53	160.55	6,371.1	-7,616.8	1,237.3	7,587.9	0.82
14,248.0	89.06	160.78	6,372.2	-7,701.7	1,267.1	7,677.8	0.58
14,337.0	88.62	160.24	6,374.0	-7,785.6	1,296.8	7,766.8	0.78
14,427.0	88.89	160.77	6,376.0	-7,870.4	1,326.8	7,856.8	0.66
14,517.0	89.29	161.02	6,377.4	-7,955.5	1,356.3	7,946.8	0.52

Revised
Office of Oil & Gas
JUN 21 2016



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523 GL 814' + KB 19' @ 833.0usft
Site:	Weigle East Pad Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523: GL 814' + KB 19' @ 833.0usft
Well:	Hawkeye Unit 2H	North Reference:	Grnd
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)
14,606.0	89.80	159.17	6,378.1	-8,039.1	1,386.6	8,035.8	2.16
14,696.0	89.36	158.97	6,378.8	-8,123.2	1,418.7	8,125.8	0.54
14,785.0	89.26	160.82	6,379.9	-8,206.8	1,449.3	8,214.7	2.08
14,875.0	89.73	161.33	6,380.6	-8,291.9	1,478.5	8,304.7	0.77
14,964.0	88.92	160.59	6,381.7	-8,376.0	1,507.5	8,393.7	1.23
15,054.0	89.36	161.06	6,383.0	-8,461.0	1,537.1	8,483.7	0.72
15,144.0	88.66	161.05	6,384.6	-8,546.1	1,566.3	8,573.7	0.78
15,233.0	89.13	160.43	6,386.3	-8,630.1	1,595.6	8,662.7	0.87
15,323.0	89.36	161.26	6,387.5	-8,715.2	1,625.2	8,752.6	0.96
15,412.0	88.72	159.27	6,389.0	-8,798.9	1,655.2	8,841.6	2.35
15,502.0	89.66	159.17	6,390.3	-8,883.0	1,687.1	8,931.6	1.05
15,591.0	88.32	159.00	6,391.8	-8,966.2	1,718.9	9,020.6	1.52
15,681.0	88.25	158.44	6,394.5	-9,050.0	1,751.6	9,110.5	0.63
15,771.0	88.72	159.25	6,396.9	-9,133.9	1,784.0	9,200.4	1.04
15,860.0	90.60	161.05	6,397.4	-9,217.6	1,814.2	9,289.4	2.92
15,950.0	90.71	160.79	6,396.4	-9,302.6	1,843.7	9,379.4	0.31
16,039.0	90.67	159.57	6,395.3	-9,386.4	1,873.8	9,468.4	1.37
16,129.0	90.17	160.60	6,394.7	-9,471.0	1,904.5	9,558.4	1.27
16,218.0	90.54	160.45	6,394.1	-9,554.9	1,934.2	9,647.4	0.45
16,308.0	90.37	162.08	6,393.4	-9,640.1	1,963.1	9,737.4	1.82
16,397.0	90.87	162.52	6,392.4	-9,724.9	1,990.1	9,826.3	0.75
16,487.0	89.30	161.43	6,392.3	-9,810.5	2,018.0	9,916.3	2.12
16,576.0	89.29	159.27	6,393.4	-9,894.3	2,047.9	10,005.3	2.43
16,666.0	89.80	160.05	6,394.1	-9,978.7	2,079.2	10,095.3	1.04
16,755.0	90.20	160.53	6,394.1	-10,062.4	2,109.2	10,184.3	0.70
16,845.0	88.76	159.25	6,394.9	-10,147.0	2,140.1	10,274.2	2.14
16,934.0	89.09	159.72	6,396.6	-10,230.3	2,171.3	10,363.2	0.65
17,024.0	89.53	160.04	6,397.7	-10,314.8	2,202.3	10,453.2	0.60
17,114.0	90.07	160.92	6,398.0	-10,399.6	2,232.3	10,543.2	1.15
17,203.0	89.43	160.22	6,398.4	-10,483.6	2,261.9	10,632.2	1.07
17,293.0	89.33	159.80	6,399.4	-10,568.1	2,292.7	10,722.2	0.48
17,382.0	89.43	159.57	6,400.3	-10,651.6	2,323.6	10,811.2	0.28
17,472.0	89.90	160.10	6,400.9	-10,736.1	2,354.6	10,901.2	0.79
17,561.0	90.00	159.53	6,400.9	-10,819.6	2,385.3	10,990.2	0.65
17,651.0	89.63	159.22	6,401.2	-10,903.8	2,417.0	11,080.2	0.54
17,740.0	89.09	160.66	6,402.2	-10,987.4	2,447.6	11,169.2	1.73
17,830.0	89.16	160.39	6,403.6	-11,072.3	2,477.6	11,259.1	0.31
17,920.0	89.19	160.35	6,404.9	-11,157.0	2,507.8	11,349.1	0.06
18,009.0	89.16	160.50	6,406.2	-11,240.9	2,537.6	11,438.1	0.17
18,098.0	89.40	160.14	6,407.3	-11,324.7	2,567.6	11,527.1	0.49
18,187.0	89.63	160.43	6,408.0	-11,408.4	2,597.6	11,616.1	0.42
18,277.0	89.73	160.77	6,408.5	-11,493.3	2,627.5	11,706.1	0.39
18,366.0	90.03	160.12	6,408.7	-11,577.2	2,657.3	11,795.1	0.80
18,455.0	89.06	159.94	6,409.4	-11,660.8	2,687.7	11,884.1	1.11
18,545.0	89.03	159.40	6,410.9	-11,745.2	2,719.0	11,974.1	0.60



Company:	Antero	Local Co-ordinate Reference:	Well Hawkeye Unit 2H
Project:	Tyler County WV	TVD Reference:	Precision 523. GL 814' + KB 19' @ 833.0usft
Site:	Weigle East Pad: Dean/Goodfellow/Hawkeye/Sc	MD Reference:	Precision 523. GL 814' + KB 19' @ 833.0usft
Well:	Hawkeye 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)
18,634.0	89.46	160.37	6,412.1	-11,828.8	2,749.6	12,063.1	1.19
18,663.0	89.53	159.73	6,412.4	-11,856.0	2,759.5	12,092.1	2.22
18,721.0	89.53	159.73	6,412.8	-11,910.5	2,779.5	12,150.1	0.00

PTB

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,231.0	5,950.8	-270.4	-1,188.7	SCMR
6,450.0	6,123.2	-390.9	-1,244.4	MDLX
6,598.0	6,217.1	-503.8	-1,255.1	BRKT
6,648.0	6,240.7	-547.8	-1,253.7	TLLY
6,772.0	6,283.7	-662.9	-1,238.8	MRCL_HOT
18,721.0	6,412.8	-11,910.5	2,779.5	PTB

Checked By: _____	Approved By: _____	Date: _____
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