



Antero Resources  
 Glover Unit 2H  
 Tyler County WV  
 Northing: 14306199.50  
 Easting: 1713840.31  
 As Drilled

**WELL DETAILS: Glover Unit 2H**

N/S +E/W Northing Easting  
 0.0 0.0 14306199.50 1713840.31

Ground Level: 749.0  
 Easting: 39° 23' 43.5821" W  
 Longitude: 60° 44' 24.9171" W

SIX

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**REFERENCE INFORMATION**

Coordinate (NE) Reference: Well Glow Unit 2H, C&I Map  
 Vertical (VD) Reference: Point 22, E. 749' x 24" IRM @ 774.00m  
 Measured Length Reference: Point 22, E. 749' x 24" IRM @ 774.00m  
 Circulation Method: Northern Canada

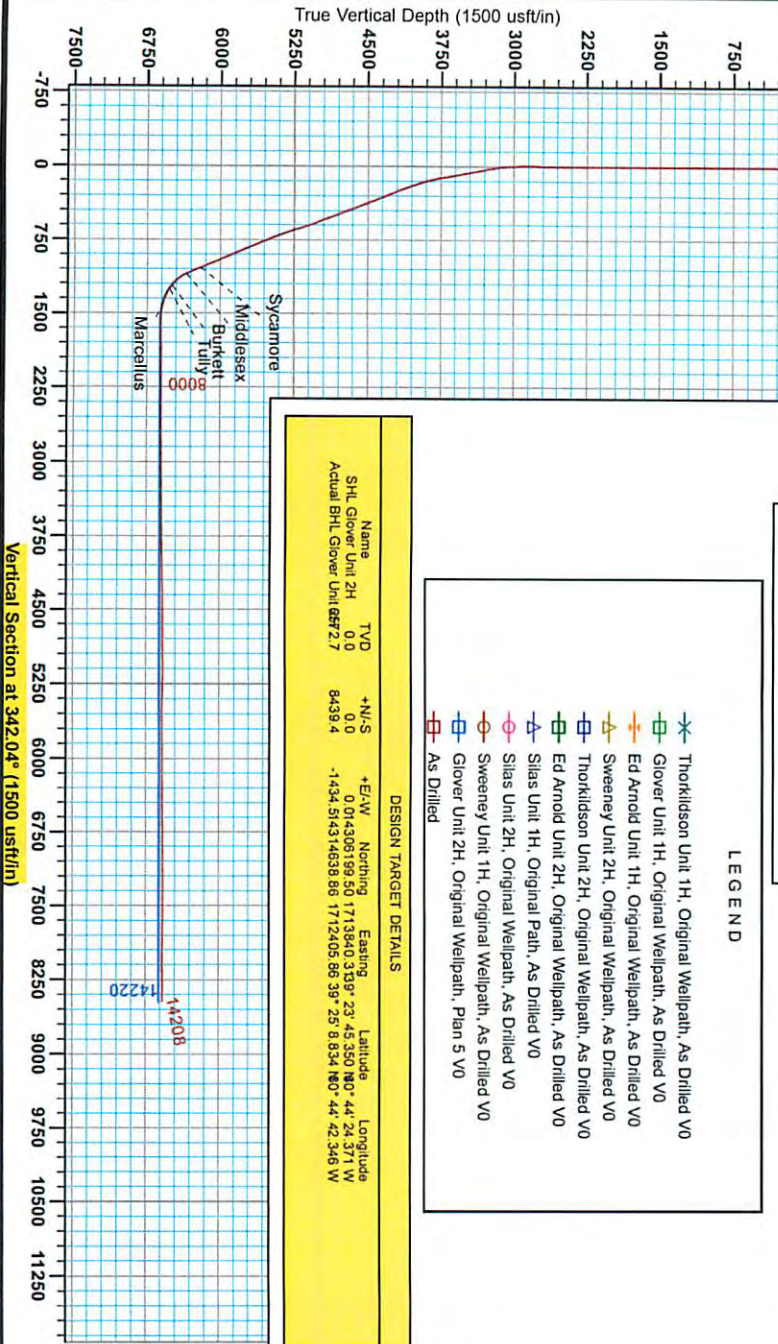
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**PROJECT DETAILS: Tyler County, WV**

Geoid 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

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Genie Lightfoot  
 14:20, September 12 2014  
 Scientific Drilling  
 421 South Eagle Lane  
 Oklahoma City, OK



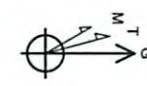
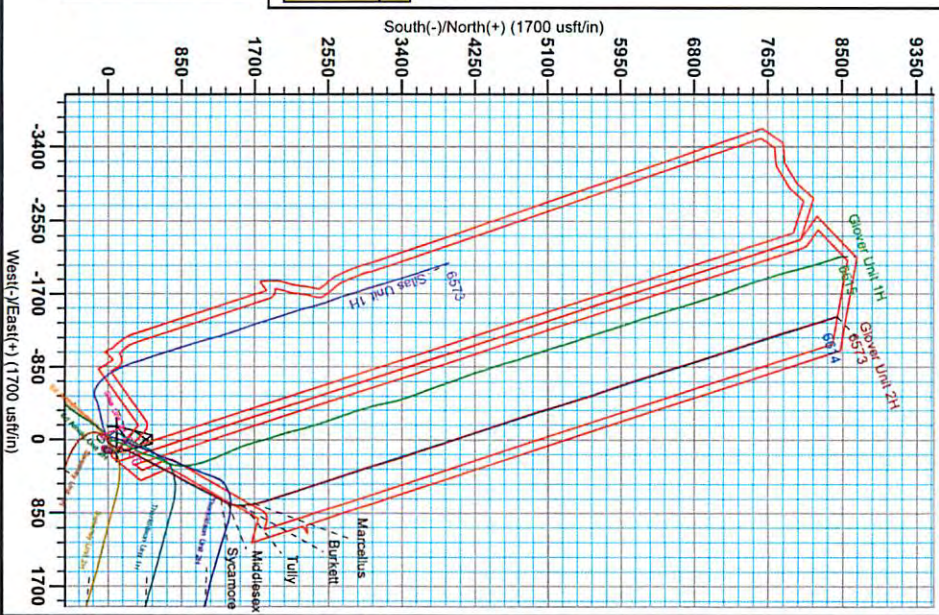
**LEGEND**

- Thorlidsen Unit 1H, Original Wellpath, As Drilled V0
- Glover Unit 1H, Original Wellpath, As Drilled V0
- Ed Arnold Unit 1H, Original Wellpath, As Drilled V0
- Sweeney Unit 2H, Original Wellpath, As Drilled V0
- Thorlidsen Unit 2H, Original Wellpath, As Drilled V0
- Ed Arnold Unit 2H, Original Wellpath, As Drilled V0
- Silas Unit 1H, Original Path, As Drilled V0
- Silas Unit 2H, Original Wellpath, As Drilled V0
- Sweeney Unit 1H, Original Wellpath, As Drilled V0
- Glover Unit 2H, Original Wellpath, Plan 5 V0
- As Drilled

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**DESIGN TARGET DETAILS**

Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
SHL Glover Unit 2H	0.0	0.0	0.0	14306199.50	1713840.31	39° 23' 43.5821" N	60° 44' 24.9171" W
Actual BHL Glover Unit 687.2.7	8439.4	-1434.514314638886	1712405.663925	8.834180° 44' 42.346 W			



To convert Magnetic North to Grid, Subtract Declination  
 To convert True North to Grid, Subtract 0.17°

Magnetic Field Strength: 52321.3nT  
 Dip Angle: 66.93°  
 Model: IGSN2013

Adjusting to Grid North  
 True North: -0.17°  
 Magnetic North: -8.73°

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 07/24/2015



# Antero Resources

Tyler County WV  
Ed Arnold/Sweeney/Thorkildsen/Glover/Silas Pad  
Glover Unit 2H  
Original Wellpath

Design: As Drilled

## EOW Completion Report

12 September, 2014

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

<b>Project</b>	Tyler County WV, Tyler Co West Virginia		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Zone 17N (84 W to 78 W)		

<b>Site</b>	Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,306,188.32 usft	<b>Latitude:</b>	39° 23' 45.240 N
<b>From:</b>	Map	<b>Easting:</b>	1,713,823.50 usft	<b>Longitude:</b>	80° 44' 24.585 W
<b>Position Uncertainty:</b>	2.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.16 °

<b>Well</b>	Glover Unit 2H, Marcellus					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,306,199.50 usft	<b>Latitude:</b>	39° 23' 45.350 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,713,840.31 usft	<b>Longitude:</b>	80° 44' 24.371 W
<b>Position Uncertainty</b>	2.0 usft		<b>Wellhead Elevation:</b>	774.0 usft	<b>Ground Level:</b>	749.0usft

<b>Wellbore</b>	Original Wellpath				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	4/21/2014	-8.57	66.93	52,321

<b>Design</b>	As Drilled				
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<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>		<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
		0.0	0.0	0.0	342.04

<b>Survey Program</b>	Date 9/12/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
39.0	5,445.0	Survey #4 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
5,498.0	14,208.0	Survey #5 MWD (Original Wellpath)	MWD SDI	MWD - Standard ver 1.0.1	

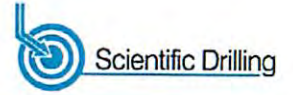
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
39.0	0.14	177.34	39.0	0.0	0.0	0.0	0.36
64.0	0.28	177.34	64.0	-0.1	0.0	-0.1	0.56
89.0	0.42	177.34	89.0	-0.3	0.0	-0.3	0.56
114.0	0.52	175.52	114.0	-0.5	0.0	-0.5	0.40
139.0	0.55	170.92	139.0	-0.7	0.1	-0.7	0.28
164.0	0.56	179.10	164.0	-1.0	0.1	-0.9	0.32
189.0	0.71	195.17	189.0	-1.2	0.0	-1.2	0.93
214.0	0.78	195.50	214.0	-1.6	0.0	-1.5	0.28
239.0	0.67	190.34	239.0	-1.9	-0.1	-1.7	0.51
264.0	0.67	201.19	264.0	-2.1	-0.2	-2.0	0.51

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

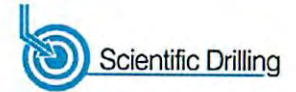
Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
289.0	0.68	217.38	289.0	-2.4	-0.3	-2.2	0.76
314.0	0.67	229.47	314.0	-2.6	-0.5	-2.3	0.57
339.0	0.69	233.15	339.0	-2.8	-0.8	-2.4	0.19
364.0	0.64	240.31	364.0	-3.0	-1.0	-2.5	0.39
389.0	0.56	246.05	389.0	-3.1	-1.3	-2.5	0.40
414.0	0.55	246.83	414.0	-3.2	-1.5	-2.6	0.05
439.0	0.54	250.51	439.0	-3.3	-1.7	-2.6	0.15
464.0	0.47	244.53	464.0	-3.3	-1.9	-2.6	0.35
489.0	0.42	243.56	489.0	-3.4	-2.1	-2.6	0.20
514.0	0.44	250.37	514.0	-3.5	-2.2	-2.6	0.22
539.0	0.40	253.68	539.0	-3.6	-2.4	-2.6	0.19
564.0	0.37	253.70	564.0	-3.6	-2.6	-2.6	0.12
589.0	0.37	251.93	589.0	-3.6	-2.7	-2.6	0.05
614.0	0.30	258.33	614.0	-3.7	-2.9	-2.6	0.32
639.0	0.26	261.63	639.0	-3.7	-3.0	-2.6	0.17
664.0	0.27	256.41	664.0	-3.7	-3.1	-2.6	0.10
689.0	0.25	258.53	689.0	-3.8	-3.2	-2.6	0.09
714.0	0.22	260.24	714.0	-3.8	-3.3	-2.6	0.12
739.0	0.21	258.43	739.0	-3.8	-3.4	-2.6	0.05
764.0	0.23	256.50	764.0	-3.8	-3.5	-2.5	0.09
789.0	0.19	247.19	789.0	-3.8	-3.6	-2.5	0.21
814.0	0.15	238.20	814.0	-3.9	-3.7	-2.6	0.19
839.0	0.16	231.67	839.0	-3.9	-3.7	-2.6	0.08
864.0	0.18	220.76	864.0	-4.0	-3.8	-2.6	0.15
889.0	0.22	220.64	889.0	-4.0	-3.8	-2.7	0.16
914.0	0.31	238.60	914.0	-4.1	-3.9	-2.7	0.49
939.0	0.35	250.99	939.0	-4.2	-4.0	-2.7	0.33
964.0	0.26	255.16	964.0	-4.2	-4.2	-2.7	0.37
989.0	0.21	253.63	989.0	-4.2	-4.3	-2.7	0.20
1,014.0	0.22	261.94	1,014.0	-4.2	-4.4	-2.7	0.13
1,039.0	0.22	269.08	1,039.0	-4.3	-4.5	-2.7	0.11
1,064.0	0.21	255.13	1,064.0	-4.3	-4.5	-2.7	0.21
1,089.0	0.22	251.27	1,089.0	-4.3	-4.6	-2.7	0.07
1,114.0	0.19	254.18	1,114.0	-4.3	-4.7	-2.7	0.13
1,139.0	0.18	254.82	1,139.0	-4.3	-4.8	-2.7	0.04
1,164.0	0.20	249.46	1,164.0	-4.4	-4.9	-2.7	0.11
1,189.0	0.26	238.67	1,189.0	-4.4	-5.0	-2.7	0.29
1,214.0	0.30	239.18	1,214.0	-4.5	-5.1	-2.7	0.19
1,239.0	0.32	234.30	1,239.0	-4.6	-5.2	-2.7	0.13
1,264.0	0.39	236.27	1,264.0	-4.6	-5.3	-2.8	0.28
1,289.0	0.35	240.26	1,289.0	-4.7	-5.5	-2.8	0.19
1,314.0	0.32	242.43	1,314.0	-4.8	-5.6	-2.8	0.49
1,339.0	0.37	248.46	1,339.0	-4.9	-5.7	-2.9	0.25
1,364.0	0.36	254.69	1,364.0	-4.9	-5.9	-2.9	0.29

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
1,389.0	0.36	255.80	1,389.0	-4.9	-6.0	-2.8	0.03		
1,414.0	0.37	259.29	1,414.0	-5.0	-6.2	-2.8	0.10		
1,439.0	0.35	262.80	1,439.0	-5.0	-6.3	-2.8	0.12		
1,464.0	0.34	262.07	1,464.0	-5.0	-6.5	-2.8	0.04		
1,489.0	0.33	261.19	1,489.0	-5.0	-6.6	-2.8	0.04		
1,514.0	0.35	261.18	1,514.0	-5.1	-6.8	-2.7	0.08		
1,539.0	0.34	266.54	1,539.0	-5.1	-6.9	-2.7	0.14		
1,564.0	0.28	271.91	1,564.0	-5.1	-7.1	-2.7	0.27		
1,589.0	0.27	271.90	1,589.0	-5.1	-7.2	-2.6	0.04		
1,614.0	0.23	286.17	1,614.0	-5.1	-7.3	-2.6	0.29		
1,639.0	0.22	286.16	1,639.0	-5.0	-7.4	-2.5	0.04		
1,664.0	0.19	282.54	1,664.0	-5.0	-7.5	-2.5	0.13		
1,689.0	0.14	319.19	1,689.0	-5.0	-7.5	-2.4	0.46		
1,714.0	0.11	336.08	1,714.0	-4.9	-7.6	-2.4	0.19		
1,739.0	0.07	331.67	1,739.0	-4.9	-7.6	-2.3	0.16		
1,764.0	0.07	333.65	1,764.0	-4.9	-7.6	-2.3	0.01		
1,789.0	0.12	319.50	1,789.0	-4.8	-7.6	-2.3	0.22		
1,814.0	0.10	303.27	1,814.0	-4.8	-7.6	-2.2	0.15		
1,839.0	0.03	234.41	1,839.0	-4.8	-7.7	-2.2	0.37		
1,864.0	0.02	310.09	1,864.0	-4.8	-7.7	-2.2	0.13		
1,889.0	0.10	257.12	1,889.0	-4.8	-7.7	-2.2	0.36		
1,914.0	0.09	236.48	1,914.0	-4.8	-7.7	-2.2	0.14		
1,939.0	0.07	246.77	1,939.0	-4.8	-7.8	-2.2	0.10		
1,964.0	0.07	239.67	1,964.0	-4.9	-7.8	-2.2	0.03		
1,989.0	0.06	240.43	1,989.0	-4.9	-7.8	-2.2	0.04		
2,014.0	0.08	238.52	2,014.0	-4.9	-7.8	-2.2	0.08		
2,039.0	0.11	229.48	2,039.0	-4.9	-7.9	-2.2	0.13		
2,064.0	0.24	256.39	2,064.0	-4.9	-7.9	-2.2	0.60		
2,089.0	0.27	261.33	2,089.0	-5.0	-8.1	-2.2	0.15		
2,114.0	0.25	254.22	2,114.0	-5.0	-8.2	-2.2	0.15		
2,139.0	0.29	263.84	2,139.0	-5.0	-8.3	-2.2	0.24		
2,164.0	0.24	268.75	2,164.0	-5.0	-8.4	-2.2	0.22		
2,189.0	0.26	263.96	2,189.0	-5.0	-8.5	-2.2	0.12		
2,214.0	0.23	260.45	2,214.0	-5.0	-8.6	-2.1	0.13		
2,239.0	0.29	256.94	2,239.0	-5.1	-8.7	-2.1	0.25		
2,264.0	0.30	261.38	2,264.0	-5.1	-8.9	-2.1	0.10		
2,289.0	0.26	254.13	2,289.0	-5.1	-9.0	-2.1	0.21		
2,314.0	0.21	255.07	2,314.0	-5.1	-9.1	-2.1	0.20		
2,339.0	0.14	262.90	2,339.0	-5.1	-9.1	-2.1	0.09		
2,364.0	0.17	265.09	2,364.0	-5.2	-9.2	-2.1	0.12		
2,389.0	0.18	296.69	2,389.0	-5.1	-9.3	-2.0	0.38		
2,414.0	0.22	288.85	2,414.0	-5.1	-9.4	-2.0	0.19		
2,439.0	0.42	266.24	2,439.0	-5.1	-9.5	-1.9	0.93		
2,464.0	0.49	259.97	2,464.0	-5.1	-9.7	-1.9	0.34		
2,489.0	0.32	252.64	2,489.0	-5.2	-9.9	-1.9	0.77		

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<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,514.0	0.14	238.65	2,514.0	-5.2	-10.0	-1.9	0.75
2,539.0	0.08	126.32	2,539.0	-5.2	-10.0	-1.9	0.74
2,564.0	0.32	86.21	2,564.0	-5.2	-9.9	-1.9	1.06
2,589.0	1.69	75.86	2,589.0	-5.1	-9.5	-2.0	5.51
2,614.0	3.42	74.72	2,613.9	-4.8	-8.4	-2.0	6.92
2,639.0	5.18	77.41	2,638.9	-4.4	-6.6	-2.2	7.08
2,664.0	6.58	79.86	2,663.7	-3.9	-4.1	-2.5	5.69
2,689.0	6.83	80.78	2,688.6	-3.4	-1.2	-2.9	1.09
2,714.0	6.89	80.53	2,713.4	-2.9	1.8	-3.3	0.27
2,739.0	6.93	81.26	2,738.2	-2.5	4.7	-3.8	0.39
2,764.0	6.66	83.27	2,763.0	-2.1	7.7	-4.3	1.44
2,789.0	6.73	82.96	2,787.8	-1.7	10.6	-4.9	0.32
2,814.0	6.65	83.34	2,812.7	-1.4	13.5	-5.4	0.37
2,839.0	6.52	83.00	2,837.5	-1.0	16.3	-6.0	0.54
2,864.0	6.65	79.39	2,862.3	-0.6	19.1	-6.5	1.74
2,889.0	6.93	71.65	2,887.2	0.2	22.0	-6.6	3.82
2,914.0	6.86	65.37	2,912.0	1.3	24.8	-6.4	3.03
2,939.0	6.80	63.28	2,936.8	2.5	27.5	-6.0	1.02
2,964.0	7.03	57.45	2,961.6	4.0	30.1	-5.4	2.95
2,989.0	7.71	47.92	2,986.4	6.0	32.6	-4.4	5.59
3,014.0	8.06	44.63	3,011.2	8.4	35.1	-2.9	2.28
3,039.0	9.18	37.09	3,035.9	11.2	37.5	-0.9	6.36
3,064.0	9.45	35.06	3,060.6	14.5	39.9	1.5	1.70
3,089.0	9.69	34.43	3,085.2	17.9	42.3	4.0	1.05
3,114.0	9.85	34.08	3,109.9	21.4	44.7	6.6	0.68
3,139.0	10.90	32.62	3,134.5	25.1	47.1	9.4	4.33
3,164.0	11.11	32.29	3,159.0	29.2	49.7	12.4	0.88
3,189.0	11.96	31.30	3,183.5	33.4	52.3	15.7	3.49
3,214.0	12.94	30.61	3,207.9	38.0	55.1	19.2	3.96
3,239.0	13.72	30.16	3,232.2	43.0	58.0	23.0	3.15
3,264.0	14.51	30.26	3,256.5	48.3	61.1	27.1	3.16
3,289.0	15.66	30.06	3,280.6	53.9	64.3	31.4	4.60
3,314.0	16.06	29.86	3,304.7	59.8	67.8	36.0	1.61
3,339.0	15.67	28.73	3,328.7	65.8	71.1	40.7	1.99
3,364.0	14.60	25.94	3,352.8	71.6	74.1	45.2	5.18
3,389.0	13.47	22.87	3,377.1	77.1	76.6	49.7	5.41
3,414.0	12.31	19.43	3,401.5	82.3	78.6	54.0	5.56
3,439.0	11.47	15.26	3,425.9	87.2	80.2	58.2	4.80
3,464.0	11.15	11.14	3,450.4	92.0	81.3	62.4	3.48
3,489.0	11.08	7.27	3,475.0	96.7	82.1	66.7	3.00
3,514.0	11.33	7.35	3,499.5	101.6	82.7	71.1	1.00
3,539.0	12.07	8.73	3,524.0	106.6	83.4	75.7	3.16
3,564.0	13.00	9.68	3,548.4	111.9	84.3	80.8	3.81
3,589.0	13.85	10.48	3,572.7	117.6	85.3	85.6	3.48

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildson/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
3,614.0	14.27	11.43	3,597.0	123.6	86.4	90.9	1.92
3,639.0	13.42	15.03	3,621.2	129.4	87.8	96.0	4.84
3,664.0	12.53	20.92	3,645.6	134.8	89.5	100.6	6.37
3,689.0	11.88	26.14	3,670.0	139.6	91.6	104.6	5.12
3,714.0	11.97	29.06	3,694.5	144.2	94.0	108.2	2.44
3,739.0	12.47	27.19	3,718.9	148.8	96.5	111.8	2.55
3,764.0	13.37	25.12	3,743.3	153.9	99.0	115.9	4.05
3,789.0	14.27	23.90	3,767.6	159.3	101.4	120.3	3.78
3,814.0	15.08	23.36	3,791.7	165.1	104.0	125.0	3.29
3,839.0	15.99	23.82	3,815.8	171.2	106.7	130.0	3.67
3,864.0	17.08	23.04	3,839.8	177.8	109.5	135.3	4.45
3,889.0	17.99	22.09	3,863.6	184.7	112.4	141.1	3.82
3,914.0	19.03	21.27	3,887.3	192.1	115.3	147.2	4.29
3,939.0	19.85	20.71	3,910.9	199.9	118.3	153.7	3.36
3,964.0	20.42	19.67	3,934.4	207.9	121.2	160.4	2.69
3,989.0	21.42	18.74	3,957.7	216.4	124.2	167.5	4.21
4,014.0	22.44	18.80	3,980.9	225.2	127.2	175.0	4.08
4,039.0	23.34	19.43	4,004.0	234.4	130.4	182.8	3.73
4,064.0	24.14	20.73	4,026.8	243.9	133.8	190.7	3.82
4,089.0	24.78	21.72	4,049.6	253.5	137.6	198.7	3.04
4,114.0	25.60	23.14	4,072.2	263.3	141.6	206.8	4.07
4,139.0	26.35	24.23	4,094.7	273.4	146.0	215.0	3.56
4,164.0	26.95	25.11	4,117.0	283.6	150.7	223.3	2.87
4,189.0	27.55	26.33	4,139.3	293.9	155.7	231.5	3.28
4,214.0	27.99	27.13	4,161.4	304.3	160.9	239.8	2.31
4,239.0	28.82	27.14	4,183.4	314.8	166.4	248.2	3.32
4,264.0	29.67	27.16	4,205.2	325.7	171.9	256.8	3.40
4,289.0	30.10	26.97	4,226.9	336.8	177.6	265.6	1.76
4,314.0	30.51	27.09	4,248.5	348.0	183.3	274.6	1.66
4,339.0	30.21	27.70	4,270.0	359.3	189.1	283.4	1.72
4,364.0	30.14	28.20	4,291.6	370.4	195.0	292.2	1.04
4,389.0	30.09	28.10	4,313.3	381.4	200.9	300.9	0.28
4,414.0	29.92	28.31	4,334.9	392.4	206.9	309.5	0.80
4,439.0	29.82	29.97	4,356.6	403.3	212.9	318.0	3.33
4,464.0	30.27	30.63	4,378.2	414.1	219.2	326.3	2.23
4,489.0	30.56	30.82	4,399.8	425.0	225.7	334.7	1.22
4,514.0	30.05	30.47	4,421.4	435.9	232.1	343.0	2.47
4,539.0	29.56	29.71	4,443.1	446.6	238.4	351.3	0.78
4,564.0	29.53	29.32	4,464.8	457.3	244.4	359.6	2.03
4,589.0	29.54	28.29	4,486.6	468.1	250.4	368.1	3.79
4,614.0	29.03	27.47	4,508.4	478.9	256.1	376.6	2.15
4,639.0	28.17	26.64	4,530.3	489.6	261.5	385.1	2.15
4,664.0	27.99	26.62	4,552.4	500.1	266.8	393.5	2.15
4,689.0	28.50	26.96	4,574.4	510.7	272.1	401.9	2.15

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,714.0	28.82	27.62	4,596.3	521.3	277.6	410.3	1.80
4,739.0	28.65	28.59	4,618.3	531.9	283.3	418.7	1.99
4,764.0	28.49	28.63	4,640.2	542.4	289.0	426.9	0.64
4,789.0	28.28	27.76	4,662.2	552.9	294.6	435.1	1.86
4,814.0	28.74	27.42	4,684.2	563.5	300.2	443.5	1.95
4,839.0	28.63	26.97	4,706.1	574.2	305.7	451.9	0.97
4,864.0	28.20	26.01	4,728.1	584.8	311.0	460.4	2.51
4,889.0	28.07	25.61	4,750.1	595.4	316.1	468.9	0.92
4,914.0	27.70	25.02	4,772.2	606.0	321.1	477.4	1.85
4,939.0	28.09	24.75	4,794.3	616.6	326.0	486.0	1.64
4,964.0	28.67	25.20	4,816.3	627.4	331.0	494.7	2.47
4,989.0	28.96	26.15	4,838.2	638.2	336.3	503.4	2.17
5,014.0	28.64	28.62	4,860.1	648.9	341.8	511.9	4.93
5,039.0	28.45	30.39	4,882.1	659.3	347.7	520.0	3.47
5,064.0	28.48	30.72	4,904.1	669.6	353.7	527.9	0.64
5,089.0	27.66	28.77	4,926.1	679.8	359.6	535.8	4.92
5,114.0	27.74	27.01	4,948.3	690.1	365.0	543.9	3.29
5,139.0	28.11	25.75	4,970.4	700.5	370.2	552.3	2.79
5,164.0	28.16	24.11	4,992.4	711.2	375.2	560.9	3.10
5,189.0	28.29	22.73	5,014.4	722.1	379.9	569.8	2.66
5,214.0	27.94	22.54	5,036.5	733.0	384.4	578.7	1.45
5,239.0	27.16	24.95	5,058.7	743.5	389.1	587.3	5.44
5,264.0	26.67	26.82	5,081.0	753.7	394.0	595.5	3.91
5,289.0	25.97	28.78	5,103.4	763.5	399.2	603.2	4.46
5,314.0	26.20	29.95	5,125.8	773.1	404.6	610.7	2.25
5,339.0	25.31	31.18	5,148.3	782.5	410.1	617.9	4.15
5,364.0	25.85	33.44	5,170.9	791.6	415.8	624.8	4.46
5,389.0	25.94	34.75	5,193.4	800.6	422.0	631.5	2.32
5,414.0	26.56	33.81	5,215.8	809.8	428.2	638.3	2.99
5,439.0	26.97	31.51	5,238.1	819.2	434.3	645.4	4.46
5,445.0	27.06	31.01	5,243.5	821.6	435.7	647.2	4.07
5,498.0	26.97	25.87	5,290.7	842.7	447.1	663.8	4.41
5,594.0	27.29	25.59	5,376.1	882.2	466.1	695.4	0.36
5,691.0	29.10	28.29	5,461.6	923.0	486.9	727.9	2.28
5,787.0	30.77	27.89	5,544.8	965.2	509.5	761.1	1.75
5,883.0	29.33	26.80	5,627.9	1,007.9	531.6	794.9	1.60
5,978.0	31.07	27.64	5,710.0	1,050.4	553.4	828.6	1.88
6,075.0	31.29	28.12	5,793.0	1,094.8	576.9	863.6	0.94
6,171.0	30.71	27.17	5,875.3	1,138.6	599.9	898.2	0.79
6,267.0	31.84	26.29	5,957.3	1,183.1	622.3	933.6	1.27
6,363.0	30.83	29.01	6,039.3	1,227.3	645.4	968.4	1.81
6,459.0	30.28	30.29	6,122.0	1,269.8	669.6	1,001.4	0.89
6,555.0	30.86	29.06	6,204.7	1,312.2	693.7	1,034.3	0.89

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EOW Completion Report



<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildson/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
6,618.0	30.91	27.86	6,258.7	1,340.6	709.1	1,056.6	0.98	
6,651.0	30.72	26.57	6,287.1	1,355.6	716.9	1,068.5	2.08	
6,684.0	30.41	25.92	6,315.5	1,370.7	724.3	1,080.6	1.37	
6,716.0	32.59	23.31	6,342.8	1,385.9	731.2	1,092.9	8.03	
6,724.0	33.50	22.28	6,349.5	1,389.9	732.9	1,096.2	13.36	
<b>Middlesex</b>								
6,748.0	36.27	19.46	6,369.2	1,402.7	737.8	1,106.9	13.36	
6,780.0	40.72	15.46	6,394.2	1,421.7	743.7	1,123.1	15.93	
6,812.0	44.42	11.60	6,417.8	1,442.8	748.8	1,141.6	14.15	
6,844.0	47.28	8.44	6,440.1	1,465.4	752.8	1,161.9	11.40	
6,876.0	49.24	4.96	6,461.4	1,489.1	755.5	1,183.6	10.17	
6,909.0	51.95	2.92	6,482.3	1,514.5	757.3	1,207.2	9.50	
6,925.0	53.35	1.92	6,492.0	1,527.2	757.8	1,219.1	10.06	
<b>Burkett</b>								
6,940.0	54.67	1.02	6,500.8	1,539.4	758.1	1,230.6	10.06	
6,973.0	57.14	358.19	6,519.3	1,566.7	757.9	1,256.6	10.32	
6,974.0	57.24	358.08	6,519.9	1,567.5	757.9	1,257.4	13.05	
<b>Tully</b>								
7,005.0	60.23	354.90	6,536.0	1,594.0	756.3	1,283.1	13.05	
7,037.0	63.68	352.21	6,551.0	1,622.0	753.1	1,310.8	13.09	
7,069.0	67.29	350.47	6,564.3	1,650.8	748.7	1,339.5	12.32	
7,101.0	70.96	349.54	6,575.7	1,680.2	743.5	1,369.1	11.79	
7,116.0	72.85	349.12	6,580.3	1,694.2	740.9	1,383.2	12.87	
<b>Marcellus</b>								
7,133.0	74.99	348.66	6,585.1	1,710.3	737.7	1,399.5	12.87	
7,166.0	78.38	347.33	6,592.7	1,741.7	731.0	1,431.4	11.00	
7,198.0	81.54	346.27	6,598.2	1,772.4	723.8	1,462.8	10.40	
7,230.0	84.01	344.91	6,602.3	1,803.1	715.9	1,494.5	8.80	
7,245.0	85.56	344.73	6,603.6	1,817.5	712.0	1,509.4	10.40	
7,298.0	90.60	342.10	6,605.4	1,868.3	696.9	1,562.3	10.72	
7,394.0	89.56	339.36	6,605.3	1,958.9	665.2	1,658.3	3.05	
7,490.0	91.38	343.07	6,604.5	2,049.7	634.3	1,754.3	4.30	
7,587.0	91.57	342.48	6,602.0	2,142.3	605.6	1,851.2	0.64	
7,682.0	91.44	342.14	6,599.5	2,232.8	576.8	1,946.2	0.38	
7,779.0	90.20	342.63	6,598.1	2,325.3	547.4	2,043.2	1.37	
7,875.0	89.03	341.75	6,598.7	2,416.7	518.0	2,139.2	1.52	
7,971.0	90.64	341.67	6,599.0	2,507.8	487.9	2,235.2	1.68	
8,068.0	89.16	341.59	6,599.2	2,599.9	457.4	2,332.1	1.53	
8,164.0	89.43	340.81	6,600.4	2,690.7	426.4	2,428.1	0.86	
8,261.0	91.07	342.81	6,599.9	2,782.9	396.1	2,525.1	2.67	
8,357.0	90.94	342.01	6,598.3	2,874.4	367.1	2,621.1	0.84	
8,453.0	90.03	342.67	6,597.4	2,965.8	338.0	2,717.1	1.17	
8,550.0	90.77	343.97	6,596.8	3,058.8	310.2	2,814.1	1.54	
8,646.0	90.81	343.56	6,595.4	3,150.9	283.3	2,910.0	0.43	
8,743.0	90.40	342.97	6,594.4	3,243.8	255.4	3,007.0	0.74	

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<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildosn/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
8,834.0	90.44	342.84	6,593.8	3,330.8	228.7	3,098.0	0.15		
8,924.0	89.63	341.80	6,593.7	3,416.5	201.3	3,188.0	1.46		
9,015.0	89.21	341.54	6,594.6	3,502.9	172.7	3,279.0	0.54		
9,105.0	90.10	339.34	6,595.2	3,587.7	142.6	3,368.9	2.64		
9,196.0	91.98	343.34	6,593.5	3,673.9	113.5	3,459.9	4.86		
9,288.0	90.13	341.98	6,591.8	3,761.7	86.1	3,551.9	2.50		
9,378.0	90.74	341.57	6,591.1	3,847.2	57.9	3,641.8	0.82		
9,469.0	90.44	341.49	6,590.2	3,933.5	29.1	3,732.8	0.34		
9,559.0	90.54	340.51	6,589.4	4,018.6	-0.2	3,822.8	1.09		
9,649.0	91.55	340.46	6,587.8	4,103.4	-30.3	3,912.8	1.12		
9,740.0	91.95	341.67	6,585.0	4,189.4	-59.8	4,003.7	1.40		
9,831.0	90.60	341.04	6,583.0	4,275.6	-88.9	4,094.7	1.64		
9,927.0	90.70	340.57	6,581.9	4,366.3	-120.4	4,190.7	0.50		
10,024.0	91.81	341.35	6,579.8	4,457.9	-152.1	4,287.6	1.40		
10,120.0	90.54	343.05	6,577.8	4,549.3	-181.4	4,383.6	2.21		
10,216.0	90.34	342.18	6,577.1	4,640.9	-210.1	4,479.6	0.93		
10,313.0	90.10	340.81	6,576.7	4,732.9	-240.9	4,576.6	1.43		
10,409.0	90.23	340.78	6,576.4	4,823.6	-272.5	4,672.5	0.14		
10,505.0	90.67	342.02	6,575.7	4,914.6	-303.1	4,768.5	1.37		
10,601.0	90.34	343.41	6,574.8	5,006.2	-331.6	4,864.5	1.49		
10,696.0	90.20	344.02	6,574.4	5,097.4	-358.2	4,959.5	0.66		
10,792.0	90.40	343.75	6,573.9	5,189.6	-384.9	5,055.4	0.35		
10,888.0	89.97	343.56	6,573.5	5,281.7	-411.9	5,151.4	0.49		
10,984.0	89.19	343.91	6,574.3	5,373.9	-438.8	5,247.3	0.89		
11,081.0	87.21	341.58	6,577.3	5,466.5	-467.5	5,344.3	3.15		
11,177.0	89.30	341.63	6,580.2	5,557.5	-497.8	5,440.2	2.18		
11,273.0	90.13	341.56	6,580.7	5,648.6	-528.1	5,536.2	0.87		
11,368.0	90.40	340.87	6,580.3	5,738.6	-558.7	5,631.2	0.78		
11,464.0	90.03	338.12	6,579.9	5,828.5	-592.3	5,727.1	2.89		
11,559.0	90.47	340.34	6,579.5	5,917.3	-626.0	5,822.0	2.38		
11,655.0	90.87	341.98	6,578.4	6,008.1	-657.0	5,918.0	1.76		
11,752.0	90.44	342.56	6,577.3	6,100.5	-686.6	6,015.0	0.74		
11,848.0	90.44	343.53	6,576.5	6,192.3	-714.6	6,110.9	1.01		
11,945.0	90.20	341.98	6,576.0	6,285.0	-743.3	6,207.9	1.62		
12,040.0	89.93	341.57	6,575.9	6,375.2	-773.0	6,302.9	0.52		
12,137.0	89.66	341.15	6,576.2	6,467.1	-804.0	6,399.9	0.51		
12,233.0	90.17	342.73	6,576.4	6,558.4	-833.8	6,495.1	1.73		
12,329.0	90.64	343.00	6,575.7	6,650.1	-862.1	6,591.9	0.56		
12,426.0	90.10	342.43	6,575.1	6,742.7	-890.9	6,688.9	0.81		
12,521.0	91.81	342.37	6,573.5	6,833.3	-919.6	6,783.9	1.80		
12,617.0	90.74	343.28	6,571.3	6,925.0	-948.0	6,879.8	1.46		
12,714.0	90.10	342.54	6,570.6	7,017.7	-976.5	6,976.8	0.43		
12,810.0	90.44	342.30	6,570.2	7,109.2	-1,005.5	7,072.8	0.43		
12,906.0	89.80	339.97	6,570.0	7,200.0	-1,036.5	7,168.8	2.52		

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<b>Company:</b>	Antero Resources	<b>Local Co-ordinate Reference:</b>	Well Glover Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Site:</b>	Ed Arnold/Sweeney/Thorkildson/Glover/Silas Pac	<b>MD Reference:</b>	Frontier 22: GL 749' + 24' RKB @ 774.0usft
<b>Well:</b>	Glover Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

**Survey**

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
13,002.0	90.10	341.66	6,570.1	7,290.7	-1,068.0	7,264.8	1.79
13,098.0	89.97	341.09	6,570.0	7,381.7	-1,098.7	7,360.8	0.61
13,194.0	89.50	342.83	6,570.4	7,472.9	-1,128.4	7,456.8	1.88
13,291.0	89.87	342.11	6,571.0	7,565.4	-1,157.6	7,553.8	0.83
13,387.0	90.37	341.31	6,570.8	7,656.6	-1,187.8	7,649.7	0.98
13,483.0	89.50	342.04	6,570.9	7,747.7	-1,218.0	7,745.7	1.18
13,579.0	88.52	341.09	6,572.5	7,838.8	-1,248.3	7,841.7	1.42
13,675.0	89.50	343.87	6,574.2	7,930.3	-1,277.2	7,937.7	3.07
13,772.0	89.93	345.33	6,574.7	8,023.8	-1,303.0	8,034.6	1.57
13,868.0	90.00	342.67	6,574.7	8,116.1	-1,329.4	8,130.5	2.77
13,965.0	91.38	343.70	6,573.6	8,208.9	-1,357.5	8,227.5	1.78
14,061.0	90.07	341.71	6,572.4	8,300.6	-1,386.0	8,323.5	2.48
14,152.0	89.66	340.48	6,572.6	8,386.7	-1,415.5	8,414.5	1.42
14,208.0	90.00	340.00	6,572.7	8,439.4	-1,434.4	8,470.4	1.05

**Design Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,555.0	6,204.7	1,312.2	693.7	Sycamore
6,724.0	6,349.5	1,389.9	732.9	Middlesex
6,925.0	6,492.0	1,527.2	757.8	Burkett
6,974.0	6,519.9	1,567.5	757.9	Tully
7,116.0	6,580.3	1,694.2	740.9	Marcellus

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

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