

33-05714



Antero Resources

Harrison County West Virginia
Cleta / Opie / Maude Pad
Truman Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

31 July, 2014

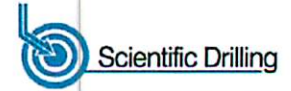


12/05/2014

33.05714



EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Truman Unit 1H
Project:	Harrison County West Virginia	TVD Reference:	Patterson : Truman 1H 1405 GL + 25 KB @ 1430
Site:	Cleta / Opie / Maude Pad	MD Reference:	Patterson : Truman 1H 1405 GL + 25 KB @ 1430
Well:	Truman Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Project	Harrison County West Virginia, Harrison County, USA		
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	Cleta / Opie / Maude Pad, SHL Cleta Unit 1H				
Site Position:		Northing:	14,243,194.63 usft	Latitude:	39° 13' 20.344 N
From:	Map	Easting:	1,766,859.11 usft	Longitude:	80° 33' 12.736 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.28 °

Well	Truman Unit 1H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,243,222.60 usft	Latitude:	39° 13' 20.625 N
	+E/-W	0.0 usft	Easting:	1,766,773.61 usft	Longitude:	80° 33' 13.822 W
Position Uncertainty	2.0 usft	Wellhead Elevation:	1,430.0 usft	Ground Level:	1,405.0 usft	

Wellbore	Original Wellpath				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/27/2014	-8.61	66.76	52,268

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	308.60	

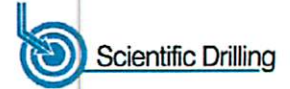
Survey Program	Date 7/31/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
112.0	5,926.0	Survey #3 Gyro to KOP (Original Wellpath	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,043.0	13,759.0	Survey #4 MWD (Original Wellpath)	MWD SDI	MWD - Standard ver 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
112.0	0.36	328.93	112.0	0.3	-0.2	0.3	0.32
212.0	0.09	17.36	212.0	0.6	-0.3	0.7	0.31
312.0	0.18	57.03	312.0	0.8	-0.2	0.6	0.12
412.0	0.13	71.71	412.0	0.9	0.1	0.5	0.06
512.0	0.15	45.51	512.0	1.1	0.3	0.4	0.07
612.0	0.14	25.28	612.0	1.3	0.4	0.5	0.05
712.0	0.20	35.09	712.0	1.5	0.6	0.5	0.07
812.0	0.26	44.75	812.0	1.8	0.8	0.5	0.07
912.0	0.24	66.19	912.0	2.1	1.2	0.4	0.10
1,012.0	0.25	66.98	1,012.0	2.2	1.6	0.2	0.01

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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)		
1,112.0	0.35	97.54	1,112.0	2.3	2.1	-0.2	0.19		
1,212.0	0.28	90.25	1,212.0	2.2	2.6	-0.7	0.08		
1,312.0	0.38	106.16	1,312.0	2.1	3.2	-1.2	0.13		
1,412.0	2.31	195.30	1,412.0	0.1	3.0	-2.3	2.34		
1,512.0	6.49	193.68	1,511.6	-7.3	1.1	-5.4	4.18		
1,612.0	9.52	214.06	1,610.7	-19.7	-4.9	-8.5	4.11		
1,712.0	11.65	224.61	1,709.0	-33.7	-16.6	-8.1	2.87		
1,812.0	12.13	224.90	1,806.8	-48.4	-31.1	-5.9	0.48		
1,912.0	8.01	218.34	1,905.3	-61.3	-42.8	-4.7	4.27		
2,012.0	4.55	244.23	2,004.7	-68.5	-50.7	-3.1	4.39		
2,112.0	3.77	247.45	2,104.4	-71.4	-57.3	0.2	0.81		
2,212.0	3.28	248.97	2,204.2	-73.7	-63.0	3.3	0.50		
2,312.0	2.56	250.35	2,304.1	-75.5	-67.8	5.9	0.72		
2,412.0	2.24	252.48	2,404.0	-76.8	-71.8	8.2	0.33		
2,512.0	1.83	248.01	2,503.9	-78.0	-75.1	10.0	0.44		
2,612.0	1.43	244.30	2,603.9	-79.2	-77.7	11.4	0.41		
2,712.0	1.09	253.88	2,703.9	-80.0	-79.8	12.5	0.40		
2,812.0	0.84	255.80	2,803.9	-80.4	-81.4	13.4	0.25		
2,912.0	0.55	231.15	2,903.9	-80.9	-82.5	14.0	0.41		
3,012.0	0.43	206.39	3,003.9	-81.5	-83.0	14.0	0.24		
3,112.0	0.43	217.17	3,103.9	-82.2	-83.4	13.9	0.08		
3,212.0	0.50	206.68	3,203.8	-82.9	-83.8	13.8	0.11		
3,312.0	0.31	156.85	3,303.8	-83.5	-83.9	13.5	0.38		
3,412.0	0.30	137.17	3,403.8	-83.9	-83.6	13.0	0.10		
3,512.0	0.46	165.93	3,503.8	-84.5	-83.4	12.4	0.24		
3,612.0	4.40	191.40	3,603.7	-88.7	-84.0	10.3	3.99		
3,712.0	6.90	194.73	3,703.2	-98.2	-86.3	6.2	2.52		
3,812.0	9.85	196.22	3,802.2	-112.3	-90.2	0.5	2.96		
3,912.0	12.86	203.49	3,900.2	-130.7	-97.1	-5.7	3.33		
4,012.0	15.85	208.24	3,997.1	-152.9	-108.0	-11.0	3.21		
4,112.0	18.46	216.97	4,092.6	-177.6	-124.0	-13.9	3.66		
4,212.0	19.77	217.44	4,187.1	-203.7	-143.8	-14.7	1.32		
4,312.0	21.91	218.32	4,280.6	-231.8	-165.6	-15.2	2.16		
4,412.0	22.43	220.01	4,373.2	-261.0	-189.4	-14.8	0.82		
4,512.0	22.35	218.59	4,465.6	-290.5	-213.6	-14.3	0.55		
4,612.0	22.72	215.96	4,558.0	-321.0	-236.8	-15.2	1.07		
4,712.0	23.28	214.26	4,650.1	-353.0	-259.2	-17.6	0.87		
4,812.0	23.59	214.27	4,741.8	-385.8	-281.6	-20.6	0.31		
4,912.0	23.80	216.07	4,833.4	-418.7	-304.8	-23.0	0.75		
5,012.0	22.89	214.07	4,925.2	-451.1	-327.5	-25.4	1.21		
5,112.0	23.06	212.63	5,017.3	-483.7	-349.0	-29.0	0.59		
5,212.0	22.88	212.38	5,109.3	-516.6	-370.0	-33.2	0.20		
5,312.0	21.96	207.35	5,201.8	-549.6	-389.0	-38.9	2.13		
5,412.0	22.51	212.27	5,294.3	-582.4	-407.8	-44.7	1.94		

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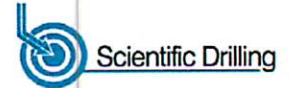
Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,512.0	23.75	218.87	5,386.3	-614.3	-430.7	-46.7	2.87
5,612.0	21.50	218.44	5,478.6	-644.3	-454.7	-46.6	2.26
5,712.0	18.39	219.27	5,572.6	-670.9	-476.1	-46.5	3.12
5,812.0	19.87	223.47	5,667.1	-695.5	-497.7	-44.9	2.02
5,912.0	22.47	226.06	5,760.3	-721.1	-523.2	-41.0	2.76
5,926.0	22.37	225.26	5,773.3	-724.8	-527.0	-40.3	2.29
6,043.0	20.33	217.68	5,882.3	-756.6	-555.3	-38.0	2.93
6,137.0	21.28	216.69	5,970.1	-783.2	-575.4	-38.9	1.08
6,231.0	20.20	220.03	6,058.0	-809.3	-596.1	-39.0	1.70
6,325.0	21.95	220.73	6,145.8	-835.0	-618.0	-38.0	1.88
6,420.0	23.49	218.11	6,233.4	-863.4	-641.2	-37.5	1.94
6,514.0	24.16	220.08	6,319.4	-892.8	-665.2	-37.1	1.11
6,608.0	25.07	220.89	6,404.8	-922.6	-690.6	-35.9	1.03
6,702.0	25.52	223.85	6,489.8	-952.3	-717.7	-33.2	1.43
6,796.0	25.46	222.16	6,574.7	-981.8	-745.3	-30.1	0.78
6,890.0	25.58	221.16	6,659.5	-1,012.1	-772.2	-27.9	0.48
6,984.0	26.78	222.00	6,743.9	-1,043.1	-799.7	-25.8	1.34
7,070.0	29.05	222.58	6,819.8	-1,072.9	-826.8	-23.2	2.66
Sycamore							
7,078.0	29.26	222.63	6,826.8	-1,075.8	-829.5	-22.9	2.66
7,110.0	28.70	222.61	6,854.8	-1,087.2	-840.0	-21.8	1.75
7,141.0	29.34	225.26	6,881.9	-1,098.0	-850.4	-20.4	4.63
7,173.0	29.81	231.26	6,909.8	-1,108.5	-862.2	-17.8	9.37
7,204.0	30.57	237.65	6,936.6	-1,117.5	-874.8	-13.5	10.65
7,235.0	30.78	243.92	6,963.2	-1,125.2	-888.6	-7.5	10.34
7,267.0	30.76	248.58	6,990.7	-1,131.8	-903.6	0.1	7.45
7,298.0	30.96	251.70	7,017.4	-1,137.2	-918.5	8.4	5.20
7,326.0	31.11	255.47	7,041.3	-1,141.3	-932.4	16.6	6.95
Middlesex							
7,330.0	31.14	256.00	7,044.8	-1,141.8	-934.4	17.9	6.95
7,361.0	31.46	258.83	7,071.3	-1,145.3	-950.1	28.0	4.85
7,393.0	32.87	263.98	7,098.4	-1,147.8	-966.9	39.6	9.63
7,424.0	34.90	269.46	7,124.1	-1,148.8	-984.2	52.4	11.83
7,455.0	37.30	274.13	7,149.1	-1,148.2	-1,002.4	67.1	11.77
7,487.0	40.00	276.28	7,174.1	-1,146.4	-1,022.3	83.8	9.42
7,500.0	41.12	277.33	7,184.0	-1,145.4	-1,030.7	90.9	10.09
Burkett							
7,518.0	42.69	278.70	7,197.4	-1,143.7	-1,042.6	101.3	10.09
7,545.0	45.62	281.10	7,216.8	-1,140.5	-1,061.1	117.8	12.50
Tully							
7,549.0	46.06	281.44	7,219.6	-1,139.9	-1,064.0	120.3	12.50
7,581.0	50.20	283.60	7,240.9	-1,134.7	-1,087.2	141.7	13.88
7,612.0	53.07	285.17	7,260.2	-1,128.7	-1,110.7	163.9	10.07
7,644.0	54.53	287.28	7,279.1	-1,121.5	-1,135.5	187.8	7.01
7,675.0	56.18	289.47	7,296.7	-1,113.4	-1,159.7	211.7	7.88

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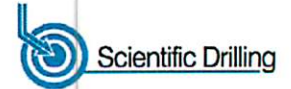
Survey

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7,707.0	58.44	292.71	7,314.0	-1,103.7	-1,184.8	237.4	11.07
7,726.0	59.71	294.30	7,323.7	-1,097.2	-1,199.8	253.1	9.80
Hamilton							
7,738.0	60.52	295.28	7,329.7	-1,092.9	-1,209.2	263.2	9.80
7,769.0	62.60	296.12	7,344.5	-1,081.0	-1,233.8	289.8	7.12
7,801.0	65.13	297.44	7,358.6	-1,068.1	-1,259.4	317.9	8.73
7,832.0	67.19	299.02	7,371.1	-1,054.7	-1,284.4	345.8	8.12
7,858.0	69.14	300.57	7,380.8	-1,042.7	-1,305.4	369.7	9.31
Marcellus							
7,864.0	69.59	300.92	7,382.9	-1,039.8	-1,310.2	375.2	9.31
7,895.0	72.26	302.09	7,393.0	-1,024.5	-1,335.2	404.3	9.32
7,926.0	75.85	304.04	7,401.5	-1,008.2	-1,360.1	433.9	13.06
7,958.0	80.52	306.76	7,408.1	-990.1	-1,385.7	465.2	16.80
7,989.0	83.34	307.44	7,412.4	-971.6	-1,410.1	495.9	9.35
8,029.0	86.41	308.21	7,416.0	-947.2	-1,441.6	535.7	7.91
8,141.0	89.10	307.72	7,420.4	-878.3	-1,529.8	647.6	2.44
8,235.0	88.63	306.95	7,422.3	-821.3	-1,604.5	741.6	0.96
8,329.0	89.70	310.56	7,423.6	-762.5	-1,677.8	835.5	4.01
8,423.0	88.42	310.01	7,425.2	-701.7	-1,749.5	929.5	1.48
8,518.0	88.89	309.84	7,427.4	-640.8	-1,822.4	1,024.4	0.53
8,612.0	89.60	309.31	7,428.6	-580.9	-1,894.8	1,118.4	0.94
8,706.0	88.99	307.52	7,429.8	-522.5	-1,968.4	1,212.4	2.01
8,800.0	87.48	306.40	7,432.7	-466.0	-2,043.5	1,306.3	2.00
8,894.0	88.06	306.32	7,436.3	-410.3	-2,119.2	1,400.2	0.62
8,988.0	88.59	306.85	7,439.1	-354.3	-2,194.6	1,494.1	0.80
9,082.0	89.33	308.09	7,440.8	-297.1	-2,269.2	1,588.0	1.54
9,176.0	88.46	308.84	7,442.6	-238.7	-2,342.8	1,682.0	1.22
9,270.0	89.20	309.80	7,444.5	-179.1	-2,415.5	1,776.0	1.29
9,365.0	88.26	310.30	7,446.6	-118.0	-2,488.2	1,870.9	1.12
9,459.0	88.59	310.92	7,449.2	-56.9	-2,559.5	1,964.8	0.75
9,553.0	87.72	309.42	7,452.2	3.7	-2,631.3	2,058.8	1.84
9,647.0	87.51	309.33	7,456.2	63.3	-2,703.9	2,152.7	0.24
9,741.0	86.98	308.74	7,460.7	122.5	-2,776.8	2,246.6	0.84
9,835.0	89.34	308.31	7,463.7	181.0	-2,850.3	2,340.5	2.55
9,930.0	89.97	307.67	7,464.3	239.4	-2,925.2	2,435.5	0.95
10,024.0	89.87	305.45	7,464.4	295.4	-3,000.7	2,529.4	2.36
10,118.0	92.05	306.09	7,462.8	350.4	-3,077.0	2,623.3	2.42
10,212.0	91.64	305.24	7,459.8	405.1	-3,153.3	2,717.1	1.00
10,306.0	92.28	305.84	7,456.6	459.7	-3,229.7	2,810.9	0.93
10,400.0	91.27	308.44	7,453.7	516.5	-3,304.6	2,904.8	2.97
10,494.0	90.20	307.39	7,452.5	574.2	-3,378.8	2,998.8	1.59
10,588.0	88.73	309.46	7,453.3	632.6	-3,452.4	3,092.8	2.70
10,682.0	90.27	310.88	7,454.2	693.3	-3,524.2	3,186.8	2.23
10,776.0	89.20	309.36	7,454.6	753.8	-3,596.1	3,280.7	1.98
10,871.0	88.02	307.55	7,456.9	812.9	-3,670.5	3,375.7	2.27

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10,965.0	88.69	308.98	7,459.6	871.1	-3,744.2	3,469.7	1.68
11,058.0	88.22	307.93	7,462.1	928.9	-3,817.0	3,562.6	1.24
11,152.0	88.79	310.37	7,464.6	988.2	-3,889.9	3,656.6	2.66
11,246.0	90.37	312.19	7,465.3	1,050.2	-3,960.5	3,750.5	2.56
11,340.0	88.76	310.05	7,466.0	1,112.0	-4,031.3	3,844.4	2.85
11,435.0	88.83	310.21	7,468.0	1,173.3	-4,104.0	3,939.3	0.18
11,529.0	89.06	310.69	7,469.7	1,234.2	-4,175.5	4,033.2	0.57
11,623.0	89.73	309.58	7,470.7	1,294.8	-4,247.3	4,127.2	1.38
11,717.0	89.16	308.51	7,471.6	1,354.0	-4,320.3	4,221.2	1.29
11,811.0	88.46	307.76	7,473.5	1,412.1	-4,394.3	4,315.2	1.09
11,905.0	88.36	308.31	7,476.2	1,470.0	-4,468.3	4,409.1	0.59
12,000.0	88.42	309.97	7,478.8	1,529.9	-4,541.9	4,504.1	1.75
12,094.0	88.62	311.04	7,481.3	1,590.9	-4,613.4	4,598.0	1.16
12,188.0	88.32	308.90	7,483.8	1,651.3	-4,685.4	4,691.9	2.30
12,282.0	88.59	308.43	7,486.3	1,710.0	-4,758.7	4,785.9	0.58
12,376.0	88.12	307.49	7,489.0	1,767.8	-4,832.8	4,879.8	1.12
12,471.0	87.85	307.41	7,492.3	1,825.5	-4,908.2	4,974.8	0.30
12,565.0	87.55	307.69	7,496.1	1,882.8	-4,982.7	5,068.7	0.44
12,659.0	88.69	308.35	7,499.2	1,940.6	-5,056.7	5,162.6	1.40
12,753.0	89.06	307.75	7,501.0	1,998.6	-5,130.7	5,256.6	0.75
12,847.0	87.96	306.92	7,503.5	2,055.5	-5,205.4	5,350.5	1.47
12,941.0	88.42	306.18	7,506.5	2,111.5	-5,280.9	5,444.4	0.93
13,036.0	88.89	307.22	7,508.7	2,168.3	-5,357.0	5,539.4	1.20
13,130.0	89.23	310.05	7,510.2	2,226.9	-5,430.4	5,633.3	3.03
13,224.0	89.46	310.86	7,511.3	2,287.9	-5,502.0	5,727.3	0.90
13,317.0	89.36	310.33	7,512.3	2,348.4	-5,572.6	5,820.2	0.58
13,412.0	89.87	310.54	7,512.9	2,410.0	-5,644.9	5,915.2	0.58
13,506.0	90.44	309.43	7,512.6	2,470.4	-5,716.9	6,009.1	1.33
13,600.0	89.19	307.58	7,512.9	2,529.0	-5,790.4	6,103.1	2.38
13,701.0	90.48	309.01	7,513.2	2,591.6	-5,869.7	6,204.1	1.91
13,759.0	90.48	309.01	7,512.8	2,628.1	-5,914.8	6,262.1	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,070.0	6,819.8	-1,072.9	-826.8	Sycamore
7,326.0	7,041.3	-1,141.3	-932.4	Middlesex
7,500.0	7,184.0	-1,145.4	-1,030.7	Burkett
7,545.0	7,216.8	-1,140.5	-1,061.1	Tully
7,726.0	7,323.7	-1,097.2	-1,199.8	Hamilton
7,858.0	7,380.8	-1,042.7	-1,305.4	Marcellus

Checked By: _____ Approved By: _____ Date: _____