



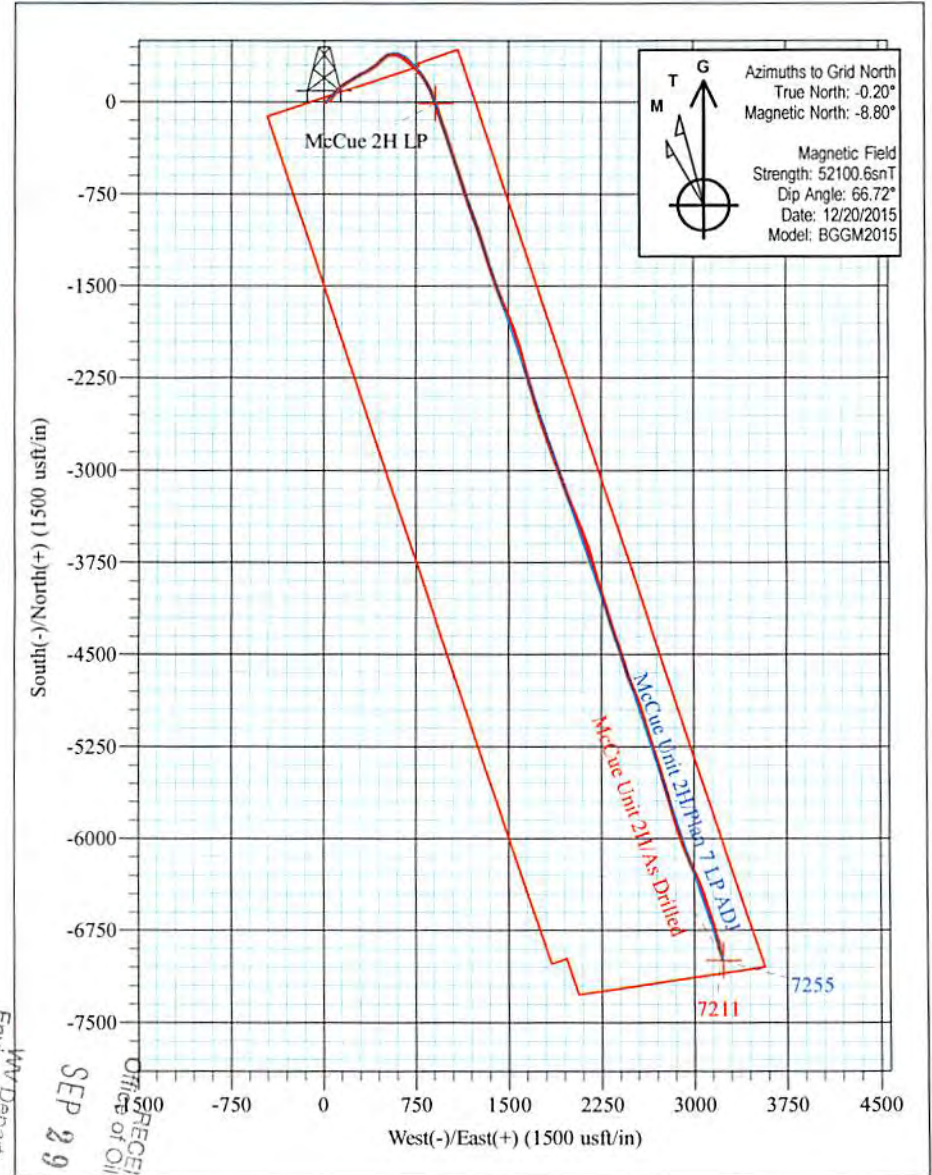
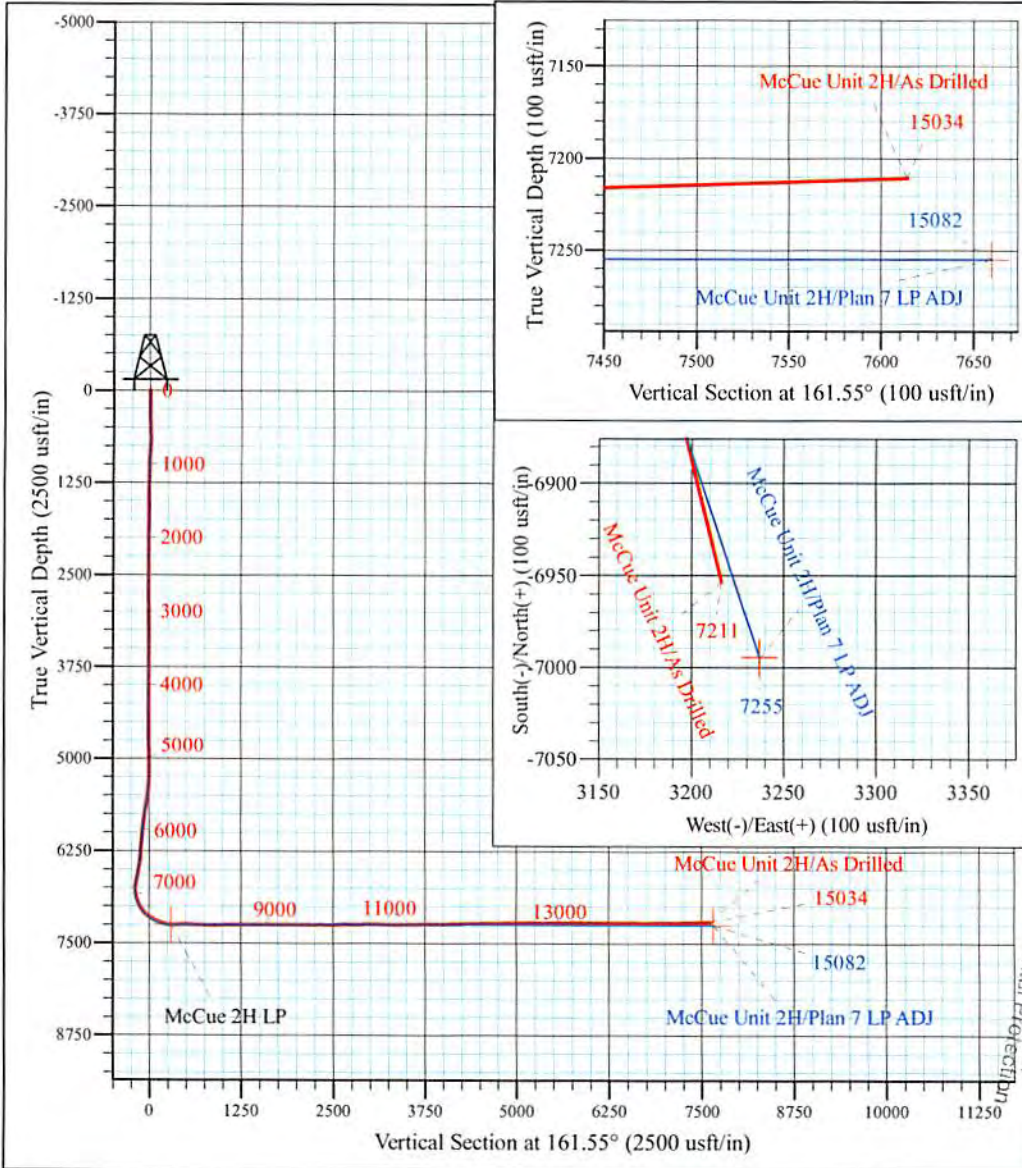
Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo
 McCue Unit 2H
 Plan 7 LP ADJ
 Patterson 340: 1375' GL + 24' KB @ 1399.0usft
 Doddridge County WV

PROJECT DETAILS:
 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



WELL DETAILS: **McCue Unit 2H SHL**

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14280080.45	1728015.18	39° 19' 26.657 N	80° 41' 24.885 W



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McCue Unit 2H
Approx. BHL
39° 18' 17.792 N 80° 40' 44.258 W

Shane Rhodes
 15:36, December 28 2015
 Scientific Drilling International
 124 Vista Drive
 Charleroi, PA 15022



Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad:Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

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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	Revival Pad:Koch/Gains/McCue/Mt Salem Revival/Milo				
Site Position:		Northing:	14,280,147.06 usft	Latitude:	39° 19' 27.317 N
From:	Map	Easting:	1,727,993.07 usft	Longitude:	80° 41' 25.164 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well	McCue Unit 2H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,280,080.45 usft	Latitude:	39° 19' 26.657 N
	+E/-W	0.0 usft	Easting:	1,728,015.18 usft	Longitude:	80° 41' 24.885 W
Position Uncertainty		2.0 usft	Wellhead Elevation:	1,399.0 usft	Ground Level:	1,375.0 usft

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	11/5/2015	-8.60	66.73	52,115
	BGGM2015	12/20/2015	-8.61	66.72	52,101

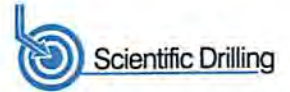
Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0		161.55

Survey Program	Date	12/28/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
25.0	4,899.2	Survey #10 - Def Final Gyro (Original Well	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
4,924.2	6,424.7	Survey #11 - Def Final Gyro pt.2 (Original	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
6,450.5	6,618.3	Survey #12 - Def Final Gyro pt. 3 (Original	Gyro MWD 105	Gyro MWD Error Model Ver 1.0.5	
6,659.0	15,034.0	Survey #13 Final MWD (Original Wellpath	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
25.0	0.04	124.48	25.0	0.0	0.0	0.0	0.16	0.16	0.00	0.00
50.0	0.08	124.48	50.0	0.0	0.0	0.0	0.16	0.16	0.00	0.00
75.0	0.12	124.48	75.0	0.0	0.1	0.1	0.16	0.16	0.00	0.00
100.0	0.15	124.48	100.0	-0.1	0.1	0.1	0.12	0.12	0.00	0.00
125.0	0.20	143.64	125.0	-0.1	0.2	0.2	0.31	0.20	76.64	



Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
150.0	0.18	165.00	150.0	-0.2	0.2	0.3	0.29	-0.08	85.44
175.0	0.27	169.21	175.0	-0.3	0.2	0.4	0.37	0.36	16.84
200.0	0.28	159.54	200.0	-0.4	0.3	0.5	0.19	0.04	-38.68
225.0	0.19	155.10	225.0	-0.5	0.3	0.6	0.37	-0.36	-17.76
250.0	0.21	136.57	250.0	-0.6	0.3	0.7	0.27	0.08	-74.12
275.0	0.24	122.12	275.0	-0.6	0.4	0.7	0.26	0.12	-57.80
300.0	0.48	128.42	300.0	-0.7	0.5	0.9	0.97	0.96	25.20
325.0	0.82	119.76	325.0	-0.9	0.8	1.1	1.41	1.36	-34.64
350.0	0.90	114.50	350.0	-1.1	1.1	1.4	0.45	0.32	-21.04
375.0	1.12	110.42	375.0	-1.2	1.5	1.6	0.93	0.88	-16.32
400.0	1.46	112.37	400.0	-1.4	2.0	2.0	1.37	1.36	-7.86
425.0	2.35	102.46	425.0	-1.7	2.8	2.5	3.78	3.56	-39.64
450.0	2.76	98.14	449.9	-1.9	3.9	3.0	1.81	1.64	-17.28
475.0	3.44	95.11	474.9	-2.0	5.3	3.6	2.80	2.72	-12.12
500.0	4.08	93.27	499.9	-2.1	6.9	4.2	2.60	2.56	-7.36
525.0	4.87	88.60	524.8	-2.2	8.9	4.8	3.48	3.16	-18.68
550.0	5.11	87.15	549.7	-2.1	11.0	5.5	1.08	0.96	-5.80
575.0	5.03	88.08	574.6	-2.0	13.2	6.1	0.46	-0.32	3.72
600.0	5.04	88.31	599.5	-1.9	15.4	6.7	0.09	0.04	0.92
625.0	5.51	76.10	624.4	-1.6	17.7	7.1	4.86	1.88	-48.84
650.0	5.88	70.92	649.3	-0.9	20.1	7.2	2.53	1.48	-20.72
675.0	5.99	71.50	674.1	-0.1	22.5	7.2	0.50	0.44	2.32
700.0	5.95	70.92	699.0	0.8	25.0	7.2	0.29	-0.16	-2.32
725.0	6.14	70.36	723.9	1.7	27.5	7.1	0.80	0.76	-2.24
750.0	6.07	58.76	748.7	2.8	29.9	6.8	4.93	-0.28	-46.40
775.0	6.28	50.89	773.6	4.3	32.1	6.0	3.49	0.84	-31.48
800.0	6.52	49.84	798.4	6.1	34.2	5.0	1.07	0.96	-4.20
824.8	6.13	49.81	823.0	7.9	36.3	4.0	1.57	-1.57	-0.12
847.7	5.78	48.28	845.9	9.4	38.1	3.1	1.68	-1.53	-6.67
872.9	5.49	47.93	871.0	11.1	39.9	2.1	1.16	-1.15	-1.39
898.6	5.39	46.94	896.5	12.7	41.7	1.1	0.53	-0.39	-3.86
924.3	5.43	47.00	922.1	14.4	43.5	0.1	0.16	0.16	0.23
949.7	4.87	46.35	947.4	16.0	45.1	-0.8	2.22	-2.21	-2.56
975.0	4.36	45.27	972.6	17.4	46.6	-1.7	2.05	-2.02	-4.27
997.8	4.21	45.46	995.3	18.6	47.8	-2.5	0.66	-0.66	0.83
1,023.4	3.89	44.71	1,020.9	19.8	49.1	-3.3	1.27	-1.25	-2.93
1,048.9	3.67	45.71	1,046.3	21.0	50.3	-4.0	0.90	-0.86	3.92
1,074.1	3.30	45.11	1,071.4	22.1	51.4	-4.7	1.48	-1.47	-2.38
1,099.3	3.13	45.64	1,096.7	23.1	52.4	-5.3	0.68	-0.67	2.10
1,122.6	2.87	46.83	1,119.9	23.9	53.3	-5.9	1.15	-1.12	5.11
1,147.9	2.54	46.54	1,145.2	24.8	54.1	-6.4	1.31	-1.31	-1.15
1,173.4	2.37	45.95	1,170.7	25.5	54.9	-6.8	0.67	-0.67	-2.31
1,198.1	2.00	43.49	1,195.3	26.2	55.6	-7.2	1.55	-1.50	-9.97

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Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,223.0	1.80	44.17	1,220.3	26.8	56.2	-7.6	0.81	-0.80	2.72
1,248.7	1.76	41.69	1,245.9	27.4	56.7	-8.0	0.34	-0.16	-9.66
1,273.9	1.66	39.58	1,271.1	27.9	57.2	-8.4	0.47	-0.40	-8.39
1,297.9	1.28	38.30	1,295.0	28.4	57.6	-8.7	1.59	-1.58	-5.34
1,324.2	1.17	34.90	1,321.3	28.9	57.9	-9.1	0.50	-0.42	-12.93
1,348.1	0.92	32.81	1,345.3	29.2	58.2	-9.3	1.06	-1.04	-8.72
1,374.4	0.70	32.46	1,371.6	29.5	58.4	-9.6	0.84	-0.84	-1.33
1,398.8	0.57	26.05	1,395.9	29.8	58.5	-9.7	0.61	-0.53	-26.31
1,423.5	0.48	26.90	1,420.7	30.0	58.6	-9.9	0.36	-0.36	3.43
1,448.3	0.36	40.30	1,445.5	30.1	58.7	-10.0	0.62	-0.48	54.05
1,474.6	0.33	51.75	1,471.8	30.2	58.8	-10.1	0.29	-0.11	43.60
1,498.6	0.30	55.83	1,495.8	30.3	58.9	-10.1	0.16	-0.12	16.98
1,525.0	0.31	68.42	1,522.1	30.4	59.0	-10.1	0.26	0.04	47.78
1,548.8	0.35	63.14	1,546.0	30.4	59.2	-10.2	0.21	0.17	-22.17
1,572.8	0.37	72.30	1,570.0	30.5	59.3	-10.2	0.25	0.08	38.10
1,599.3	0.33	90.40	1,596.4	30.5	59.5	-10.1	0.44	-0.15	68.48
1,623.9	0.44	64.31	1,621.1	30.6	59.6	-10.1	0.83	0.45	-105.80
1,647.9	0.40	62.97	1,645.0	30.6	59.8	-10.1	0.17	-0.17	5.59
1,674.5	0.42	53.43	1,671.6	30.7	59.9	-10.2	0.27	0.08	-35.85
1,698.8	0.42	65.43	1,696.0	30.8	60.1	-10.2	0.36	0.00	49.28
1,723.1	0.29	53.80	1,720.3	30.9	60.2	-10.3	0.61	-0.54	-47.90
1,749.7	0.29	25.51	1,746.9	31.0	60.3	-10.3	0.53	0.00	-106.43
1,773.5	0.17	42.37	1,770.7	31.1	60.3	-10.4	0.57	-0.50	70.81
1,798.2	0.16	19.52	1,795.4	31.1	60.4	-10.4	0.27	-0.04	-92.44
1,824.4	0.22	19.13	1,821.6	31.2	60.4	-10.5	0.23	0.23	-1.49
1,848.6	0.15	44.87	1,845.8	31.3	60.5	-10.6	0.44	-0.29	106.28
1,873.3	0.13	356.31	1,870.5	31.3	60.5	-10.6	0.47	-0.08	-196.52
1,899.9	0.09	344.91	1,897.1	31.4	60.5	-10.6	0.17	-0.15	-42.87
1,923.9	0.05	350.83	1,921.0	31.4	60.5	-10.7	0.17	-0.17	24.72
1,948.5	0.09	330.15	1,945.7	31.4	60.4	-10.7	0.19	0.16	-83.83
1,974.8	0.09	244.67	1,972.0	31.5	60.4	-10.7	0.46	0.00	-325.27
1,998.6	0.02	187.50	1,995.8	31.4	60.4	-10.7	0.34	-0.29	-240.01
2,024.4	0.03	346.63	2,021.6	31.4	60.4	-10.7	0.19	0.04	616.54
2,047.9	0.12	127.35	2,045.0	31.4	60.4	-10.7	0.62	0.38	600.34
2,073.6	0.18	121.51	2,070.8	31.4	60.5	-10.6	0.24	0.23	-22.66
2,098.3	0.15	105.62	2,095.4	31.4	60.5	-10.6	0.22	-0.12	-64.54
2,124.1	0.08	121.26	2,121.2	31.4	60.6	-10.6	0.30	-0.27	60.64
2,149.8	0.26	94.28	2,147.0	31.3	60.7	-10.5	0.75	0.70	-104.82
2,174.1	0.25	71.16	2,171.2	31.4	60.8	-10.5	0.42	-0.04	-95.18
2,199.9	0.20	60.78	2,197.1	31.4	60.9	-10.5	0.25	-0.19	-40.20
2,223.3	0.25	70.76	2,220.5	31.4	60.9	-10.5	0.27	0.21	42.58
2,249.4	0.22	49.42	2,246.6	31.5	61.0	-10.5	0.35	-0.12	-81.86

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Scientific Drilling International
Survey Report



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Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,273.5	0.11	347.57	2,270.7	31.5	61.1	-10.6	0.81	-0.46	-256.85
2,299.4	0.04	15.24	2,296.5	31.6	61.1	-10.6	0.30	-0.27	106.92
2,322.9	0.07	24.07	2,320.0	31.6	61.1	-10.6	0.13	0.13	37.57
2,348.9	0.05	127.99	2,346.1	31.6	61.1	-10.6	0.37	-0.08	399.23
2,373.3	0.15	104.62	2,370.5	31.6	61.1	-10.6	0.43	0.41	-95.66
2,399.1	0.07	58.67	2,396.3	31.6	61.2	-10.6	0.44	-0.31	-178.17
2,424.6	0.26	106.69	2,421.8	31.6	61.2	-10.6	0.86	0.75	188.54
2,448.4	0.29	82.65	2,445.5	31.6	61.3	-10.5	0.50	0.13	-101.14
2,474.0	0.31	89.26	2,471.2	31.6	61.5	-10.5	0.16	0.08	25.76
2,524.3	0.06	44.63	2,521.4	31.6	61.6	-10.5	0.54	-0.50	-88.80
2,547.9	0.14	220.03	2,545.1	31.6	61.6	-10.5	0.85	0.34	742.91
2,573.8	0.13	237.45	2,571.0	31.5	61.6	-10.4	0.16	-0.04	67.18
2,599.4	0.17	257.92	2,596.6	31.5	61.5	-10.4	0.26	0.16	79.96
2,625.0	0.21	235.22	2,622.1	31.5	61.4	-10.4	0.33	0.16	-88.92
2,648.2	0.25	252.95	2,645.4	31.4	61.4	-10.4	0.35	0.17	76.19
2,674.9	0.36	248.08	2,672.1	31.4	61.2	-10.4	0.42	0.41	-18.25
2,698.3	0.45	244.49	2,695.4	31.3	61.1	-10.4	0.40	0.39	-15.38
2,723.9	0.44	235.47	2,721.0	31.2	60.9	-10.3	0.28	-0.04	-35.21
2,749.5	0.43	242.66	2,746.6	31.1	60.7	-10.3	0.22	-0.04	28.10
2,773.5	0.44	241.55	2,770.7	31.0	60.6	-10.3	0.05	0.04	-4.62
2,799.1	0.49	244.98	2,796.3	31.0	60.4	-10.2	0.22	0.20	13.38
2,824.7	0.51	241.54	2,821.8	30.9	60.2	-10.2	0.14	0.08	-13.47
2,849.1	0.36	227.04	2,846.3	30.7	60.0	-10.2	0.76	-0.61	-59.30
2,874.5	0.36	238.12	2,871.6	30.6	59.9	-10.1	0.27	0.00	43.69
2,899.5	0.32	250.12	2,896.6	30.6	59.8	-10.1	0.33	-0.16	48.04
2,924.6	0.28	237.91	2,921.8	30.5	59.7	-10.1	0.30	-0.16	-48.55
2,947.9	0.35	249.11	2,945.0	30.5	59.5	-10.1	0.40	0.30	48.11
2,973.0	0.36	265.27	2,970.1	30.4	59.4	-10.1	0.40	0.04	64.43
2,998.1	0.32	258.34	2,995.2	30.4	59.3	-10.1	0.23	-0.16	-27.62
3,023.2	0.40	278.55	3,020.3	30.4	59.1	-10.2	0.59	0.32	80.39
3,049.4	0.32	249.32	3,046.5	30.4	58.9	-10.2	0.75	-0.31	-11.67
3,074.5	0.28	268.40	3,071.6	30.4	58.8	-10.2	0.43	-0.16	76.11
3,099.5	0.27	242.89	3,096.7	30.3	58.7	-10.2	0.49	-0.04	-101.76
3,124.6	0.34	256.66	3,121.7	30.3	58.6	-10.2	0.40	0.28	54.93
3,147.8	0.28	243.46	3,144.9	30.3	58.5	-10.2	0.40	-0.26	-56.90
3,173.0	0.38	242.64	3,170.2	30.2	58.3	-10.2	0.40	0.40	-3.25
3,198.1	0.49	238.26	3,195.2	30.1	58.2	-10.1	0.46	0.44	-17.46
3,223.4	0.54	242.18	3,220.6	30.0	58.0	-10.1	0.24	0.20	15.47
3,249.5	0.49	237.08	3,246.7	29.9	57.8	-10.1	0.26	-0.19	-19.55
3,274.6	0.60	241.11	3,271.7	29.8	57.6	-10.0	0.46	0.44	16.07
3,299.7	0.46	232.54	3,296.9	29.6	57.4	-10.0	0.64	-0.56	-34.09
3,322.4	0.45	217.25	3,319.6	29.5	57.2	-9.9	0.54	-0.04	-67.39
3,348.1	0.40	222.26	3,345.3	29.4	57.1	-9.8	0.24	-0.19	19.58

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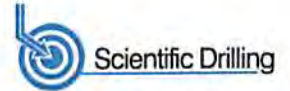
Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,373.6	0.36	229.62	3,370.7	29.2	57.0	-9.7	0.25	-0.16	28.81
3,399.5	0.35	219.16	3,396.6	29.1	56.9	-9.6	0.25	-0.04	-40.43
3,424.6	0.38	230.55	3,421.8	29.0	56.8	-9.6	0.31	0.12	45.29
3,449.7	0.40	235.95	3,446.8	28.9	56.6	-9.5	0.17	0.08	21.53
3,474.8	0.50	235.23	3,471.9	28.8	56.5	-9.4	0.40	0.40	-2.87
3,497.6	0.46	234.07	3,494.7	28.7	56.3	-9.4	0.18	-0.18	-5.09
3,523.2	0.56	228.81	3,520.3	28.5	56.1	-9.3	0.43	0.39	-20.54
3,548.3	0.55	234.06	3,545.4	28.4	55.9	-9.2	0.21	-0.04	20.94
3,573.3	0.62	241.73	3,570.5	28.3	55.7	-9.2	0.42	0.28	30.58
3,598.4	0.60	231.09	3,595.5	28.1	55.5	-9.1	0.46	-0.08	-42.44
3,623.9	0.72	238.40	3,621.0	27.9	55.3	-9.0	0.57	0.47	28.69
3,649.2	0.62	226.52	3,646.4	27.8	55.0	-8.9	0.67	-0.39	-46.86
3,674.5	0.62	242.03	3,671.6	27.6	54.8	-8.8	0.66	0.00	61.50
3,699.6	0.67	239.46	3,696.7	27.5	54.6	-8.8	0.23	0.20	-10.21
3,724.7	0.72	233.31	3,721.9	27.3	54.3	-8.7	0.36	0.20	-24.49
3,749.6	0.66	238.91	3,746.8	27.1	54.1	-8.6	0.36	-0.24	22.47
3,774.3	0.63	242.09	3,771.4	27.0	53.8	-8.6	0.19	-0.12	12.90
3,798.9	0.62	251.86	3,796.0	26.9	53.6	-8.6	0.43	-0.04	39.75
3,823.9	0.59	248.43	3,821.0	26.8	53.3	-8.5	0.19	-0.12	-13.70
3,848.5	0.57	247.37	3,845.7	26.7	53.1	-8.5	0.09	-0.08	-4.30
3,873.4	0.62	245.34	3,870.5	26.6	52.9	-8.5	0.22	0.20	-8.16
3,898.4	0.74	253.47	3,895.5	26.5	52.6	-8.5	0.62	0.48	32.57
3,923.8	0.66	245.18	3,920.9	26.4	52.3	-8.5	0.51	-0.31	-32.64
3,948.7	0.71	238.69	3,945.8	26.3	52.0	-8.4	0.37	0.20	-26.10
3,973.3	0.76	248.60	3,970.4	26.1	51.7	-8.4	0.55	0.20	40.27
3,998.2	0.77	236.66	3,995.3	26.0	51.5	-8.3	0.64	0.04	-47.89
4,024.9	0.70	233.88	4,022.0	25.8	51.2	-8.2	0.29	-0.26	-10.42
4,049.9	0.73	231.30	4,047.0	25.6	50.9	-8.1	0.18	0.12	-10.32
4,074.5	0.56	233.17	4,071.6	25.4	50.7	-8.1	0.70	-0.69	7.60
4,099.3	0.63	231.97	4,096.4	25.2	50.5	-8.0	0.29	0.28	-4.69
4,124.7	0.59	239.17	4,121.8	25.1	50.3	-7.9	0.34	-0.16	28.38
4,149.3	0.49	251.55	4,146.4	25.0	50.1	-7.9	0.62	-0.41	50.35
4,173.8	0.59	251.22	4,170.9	24.9	49.9	-7.9	0.41	0.41	-1.95
4,198.7	0.66	253.94	4,195.8	24.8	49.6	-7.9	0.31	0.28	10.99
4,223.2	0.68	252.52	4,220.3	24.8	49.3	-7.9	0.11	0.08	-5.80
4,249.8	0.69	245.54	4,246.9	24.6	49.0	-7.9	0.32	0.04	-26.19
4,274.3	0.68	248.97	4,271.4	24.5	48.8	-7.8	0.17	-0.04	14.01
4,297.8	0.72	243.32	4,294.9	24.4	48.5	-7.8	0.34	0.17	-24.08
4,324.6	0.75	238.69	4,321.7	24.3	48.2	-7.8	0.25	0.11	-17.28
4,349.1	0.77	238.50	4,346.2	24.1	47.9	-7.7	0.08	0.08	-0.78
4,374.1	0.70	235.93	4,371.2	23.9	47.6	-7.6	0.31	-0.26	-10.28
4,398.7	0.66	239.57	4,395.8	23.8	47.4	-7.5	0.24	-0.16	14.79

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Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad.Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,423.2	0.66	237.55	4,420.3	23.6	47.2	-7.5	0.09	0.00	-8.23	
4,449.3	0.76	240.31	4,446.4	23.4	46.9	-7.4	0.41	0.38	10.60	
4,473.7	0.68	242.50	4,470.8	23.3	46.6	-7.3	0.35	-0.33	8.98	
4,499.1	0.79	241.23	4,496.2	23.1	46.3	-7.3	0.44	0.43	-5.00	
4,523.7	0.76	249.14	4,520.7	23.0	46.0	-7.3	0.45	-0.12	32.19	
4,548.3	0.74	244.05	4,545.4	22.9	45.7	-7.2	0.28	-0.08	-20.63	
4,573.5	0.81	238.42	4,570.6	22.7	45.4	-7.2	0.41	0.28	-22.37	
4,599.0	0.94	237.30	4,596.0	22.5	45.1	-7.1	0.51	0.51	-4.40	
4,623.6	0.82	238.27	4,620.6	22.3	44.8	-7.0	0.49	-0.49	3.94	
4,649.0	0.89	232.69	4,646.1	22.1	44.5	-6.9	0.43	0.27	-21.91	
4,673.7	0.98	229.25	4,670.8	21.8	44.2	-6.7	0.43	0.37	-13.96	
4,699.0	0.89	227.53	4,696.0	21.6	43.8	-6.6	0.37	-0.36	-6.80	
4,724.5	0.84	220.53	4,721.6	21.3	43.6	-6.4	0.46	-0.20	-27.41	
4,749.5	0.81	222.89	4,746.6	21.0	43.3	-6.2	0.18	-0.12	9.43	
4,774.5	0.83	225.57	4,771.5	20.8	43.1	-6.1	0.17	0.08	10.75	
4,799.8	0.91	229.97	4,796.8	20.5	42.8	-5.9	0.41	0.32	17.36	
4,824.7	0.79	225.59	4,821.7	20.2	42.5	-5.7	0.55	-0.48	-17.63	
4,849.7	0.88	239.48	4,846.7	20.0	42.2	-5.6	0.88	0.36	55.47	
4,874.6	0.89	234.51	4,871.7	19.8	41.9	-5.5	0.31	0.04	-19.93	
4,899.2	0.83	230.56	4,896.3	19.6	41.6	-5.4	0.34	-0.24	-16.05	
4,924.2	0.81	227.79	4,921.2	19.4	41.4	-5.3	0.18	-0.08	-11.11	
4,948.9	0.86	230.32	4,945.9	19.1	41.1	-5.1	0.25	0.20	10.26	
4,973.5	1.01	237.29	4,970.5	18.9	40.8	-5.0	0.76	0.61	28.31	
4,999.8	1.00	241.64	4,996.8	18.7	40.4	-4.9	0.29	-0.04	16.53	
5,024.0	1.03	239.32	5,021.0	18.4	40.0	-4.8	0.21	0.12	-9.58	
5,049.7	1.18	237.23	5,046.7	18.2	39.6	-4.7	0.60	0.58	-8.14	
5,074.3	1.05	237.07	5,071.3	17.9	39.2	-4.6	0.53	-0.53	-0.65	
5,099.1	0.65	217.79	5,096.1	17.7	38.9	-4.5	1.96	-1.61	-77.74	
5,124.2	0.39	130.29	5,121.2	17.5	38.9	-4.3	2.96	-1.03	-348.19	
5,149.2	0.96	84.63	5,146.2	17.5	39.1	-4.2	2.96	2.28	-182.42	
5,174.6	1.53	70.76	5,171.6	17.6	39.7	-4.2	2.52	2.24	-54.58	
5,199.9	2.81	66.02	5,196.8	18.0	40.6	-4.2	5.11	5.07	-18.77	
5,224.2	3.93	62.76	5,221.1	18.6	41.8	-4.4	4.67	4.60	-13.40	
5,249.7	4.62	61.37	5,246.6	19.5	43.5	-4.7	2.73	2.70	-5.45	
5,275.0	5.41	58.86	5,271.7	20.6	45.4	-5.2	3.25	3.13	-9.95	
5,299.5	6.37	56.26	5,296.1	22.0	47.6	-5.8	4.06	3.92	-10.61	
5,323.7	7.32	52.33	5,320.2	23.6	49.9	-6.6	4.37	3.92	-16.21	
5,349.1	8.29	49.45	5,345.3	25.8	52.6	-7.9	4.12	3.82	-11.36	
5,374.1	9.10	47.02	5,370.0	28.3	55.4	-9.4	3.55	3.23	-9.70	
5,399.5	10.27	45.36	5,395.1	31.3	58.5	-11.2	4.73	4.60	-6.53	
5,424.8	11.24	44.31	5,420.0	34.7	61.8	-13.3	3.91	3.83	-4.15	
5,448.7	11.74	42.69	5,443.4	38.1	65.1	-15.6	2.49	2.09	-6.78	
5,474.9	12.56	41.00	5,469.0	42.2	68.7	-18.3	3.41	3.13	-6.45	

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Survey Report



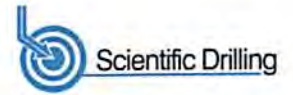
Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,498.9	13.12	40.01	5,492.4	46.3	72.2	-21.0	2.51	2.34	-4.13
5,524.9	13.82	38.99	5,517.7	51.0	76.1	-24.3	2.84	2.69	-3.92
5,549.4	14.84	37.78	5,541.4	55.7	79.8	-27.6	4.34	4.16	-4.94
5,574.2	16.16	36.59	5,565.3	61.0	83.8	-31.3	5.48	5.32	-4.80
5,599.8	17.42	35.74	5,589.8	67.0	88.2	-35.6	5.02	4.92	-3.32
5,624.3	18.08	35.68	5,613.2	73.0	92.5	-40.0	2.69	2.69	-0.24
5,649.7	18.66	37.12	5,637.2	79.5	97.3	-44.6	2.90	2.29	5.68
5,673.8	19.06	39.48	5,660.0	85.6	102.1	-48.8	3.58	1.66	9.80
5,699.7	19.29	42.12	5,684.5	92.0	107.7	-53.2	3.46	0.89	10.19
5,724.1	19.26	44.26	5,707.6	97.9	113.2	-57.0	2.89	-0.12	8.75
5,749.8	19.46	45.98	5,731.8	103.9	119.2	-60.8	2.35	0.78	6.70
5,774.3	19.81	47.35	5,754.9	109.5	125.2	-64.3	2.36	1.43	5.59
5,799.1	20.01	48.39	5,778.1	115.2	131.5	-67.7	1.65	0.81	4.21
5,824.8	20.15	50.15	5,802.3	121.0	138.2	-71.0	2.41	0.54	6.83
5,849.5	20.38	52.37	5,825.5	126.3	144.8	-74.0	3.26	0.93	9.01
5,874.5	20.60	53.50	5,848.9	131.6	151.8	-76.8	1.81	0.88	4.51
5,899.1	21.27	53.79	5,871.9	136.8	158.9	-79.5	2.75	2.72	1.18
5,923.9	21.83	53.91	5,894.9	142.2	166.2	-82.2	2.27	2.27	0.49
5,949.6	22.56	54.12	5,918.7	147.9	174.1	-85.2	2.85	2.84	0.82
5,974.9	22.95	56.24	5,942.0	153.4	182.1	-87.9	3.59	1.54	8.39
5,999.5	23.28	57.93	5,964.7	158.7	190.3	-90.3	3.00	1.34	6.85
6,023.8	23.66	59.32	5,987.0	163.7	198.5	-92.5	2.77	1.57	5.73
6,049.3	24.05	60.29	6,010.3	168.9	207.4	-94.6	2.17	1.53	3.80
6,074.4	24.52	59.57	6,033.2	174.1	216.4	-96.7	2.22	1.88	-2.87
6,099.6	25.19	58.87	6,056.0	179.5	225.5	-98.9	2.90	2.66	-2.78
6,123.9	25.14	57.98	6,078.1	184.9	234.3	-101.3	1.57	-0.21	-3.66
6,149.6	24.56	57.39	6,101.3	190.7	243.4	-103.9	2.46	-2.26	-2.30
6,174.7	24.48	58.45	6,124.2	196.2	252.2	-106.3	1.78	-0.32	4.21
6,199.5	24.55	59.88	6,146.7	201.5	261.0	-108.5	2.41	0.28	5.77
6,224.5	24.48	59.79	6,169.5	206.7	270.0	-110.6	0.32	-0.28	-0.36
6,249.8	25.07	60.62	6,192.5	212.0	279.2	-112.7	2.71	2.34	3.29
6,274.7	25.97	62.26	6,215.0	217.1	288.7	-114.6	4.58	3.60	6.57
6,299.7	26.55	63.10	6,237.4	222.2	298.5	-116.3	2.76	2.32	3.36
6,324.9	26.89	62.86	6,259.9	227.3	308.6	-118.0	1.42	1.35	-0.96
6,350.0	27.54	62.68	6,282.2	232.6	318.8	-119.7	2.61	2.59	-0.72
6,374.8	28.01	62.10	6,304.2	238.0	329.0	-121.6	2.18	1.89	-2.33
6,399.3	28.10	61.83	6,325.7	243.4	339.2	-123.5	0.64	0.37	-1.10
6,424.7	28.60	61.72	6,348.1	249.1	349.8	-125.6	1.98	1.97	-0.43
6,450.5	28.76	60.27	6,370.7	255.1	360.6	-127.8	2.77	0.62	-5.62
6,476.3	28.56	58.59	6,393.4	261.4	371.3	-130.4	3.21	-0.77	-6.49
6,500.5	28.42	57.32	6,414.7	267.5	381.1	-133.1	2.57	-0.58	-5.26
6,526.1	28.16	55.37	6,437.2	274.2	391.2	-136.3	3.75	-1.02	-7.63

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Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,550.6	28.10	54.29	6,458.8	280.9	400.6	-139.6	2.09	-0.24	-4.40	
6,575.6	28.02	52.16	6,480.9	287.9	410.0	-143.3	4.03	-0.32	-8.54	
6,600.3	28.26	50.70	6,502.7	295.2	419.1	-147.3	2.95	0.97	-5.90	
6,618.3	28.79	50.02	6,518.5	300.7	425.8	-150.5	3.45	2.94	-3.78	
6,659.0	29.15	47.87	6,554.1	313.6	440.6	-158.0	2.71	0.88	-5.29	
First SDI MWD @ 6659										
6,722.0	27.55	48.66	6,609.5	333.5	462.9	-169.9	2.61	-2.54	1.25	
6,753.0	27.04	48.92	6,637.1	342.9	473.6	-175.4	1.69	-1.65	0.84	
6,784.0	26.36	48.18	6,664.8	352.1	484.1	-180.8	2.44	-2.19	-2.39	
6,847.0	25.35	48.32	6,721.5	370.4	504.6	-191.7	1.61	-1.60	0.22	
6,878.0	24.97	60.65	6,749.5	378.0	515.2	-195.5	16.93	-1.23	39.77	
6,910.0	25.71	73.41	6,778.5	383.3	527.8	-196.6	17.19	2.31	39.88	
6,941.0	26.21	83.78	6,806.4	386.0	541.0	-194.9	14.72	1.61	33.45	
6,973.0	26.65	91.30	6,835.0	386.6	555.2	-191.0	10.54	1.38	23.50	
7,004.0	26.98	96.90	6,862.7	385.6	569.2	-185.6	8.22	1.06	18.06	
7,035.0	27.37	102.21	6,890.3	383.2	583.1	-179.0	7.92	1.26	17.13	
7,067.0	28.39	107.60	6,918.6	379.4	597.6	-170.7	8.49	3.19	16.84	
7,098.0	29.11	112.42	6,945.8	374.3	611.6	-161.5	7.83	2.32	15.55	
7,115.0	29.82	115.22	6,960.6	370.9	619.2	-155.9	9.10	4.15	16.46	
Middlesex @ 7115										
7,129.0	30.44	117.43	6,972.7	367.8	625.5	-150.9	9.10	4.46	15.80	
7,161.0	33.31	122.65	6,999.8	359.3	640.1	-138.2	12.43	8.97	16.31	
7,192.0	36.20	126.04	7,025.3	349.3	654.7	-124.2	11.21	9.32	10.94	
7,223.0	39.49	127.79	7,049.8	337.9	669.9	-108.5	11.16	10.61	5.65	
7,254.0	43.76	128.31	7,073.0	325.2	686.1	-91.3	13.82	13.77	1.68	
7,285.0	47.56	129.78	7,094.6	311.2	703.3	-72.6	12.72	12.26	4.74	
7,305.0	50.12	131.05	7,107.8	301.5	714.8	-59.8	13.68	12.82	6.33	
Burket @ 7305										
7,317.0	51.67	131.76	7,115.3	295.3	721.7	-51.7	13.68	12.88	5.95	
7,348.0	55.65	135.31	7,133.7	278.1	739.8	-29.7	15.81	12.84	11.45	
7,352.0	56.08	135.56	7,136.0	275.7	742.2	-26.7	11.88	10.70	6.23	
Tully @ 7352										
7,379.0	58.98	137.18	7,150.5	259.2	757.9	-6.1	11.88	10.75	6.00	
7,411.0	61.50	139.02	7,166.3	238.6	776.4	19.4	9.32	7.88	5.75	
7,442.0	63.30	141.76	7,180.7	217.4	793.9	45.0	9.75	5.81	8.84	
7,473.0	64.78	144.81	7,194.3	195.1	810.6	71.5	10.05	4.77	9.84	
7,505.0	67.66	147.64	7,207.2	170.7	826.8	99.7	12.10	9.00	8.84	
7,532.0	69.95	150.62	7,216.9	149.1	839.8	124.3	13.32	8.47	11.02	
Marcellus @ 7532										
7,536.0	70.29	151.05	7,218.3	145.8	841.6	128.0	13.32	8.58	10.83	
7,568.0	72.06	154.08	7,228.6	119.0	855.5	157.9	10.53	5.53	9.47	
7,599.0	73.99	156.63	7,237.7	92.0	867.9	187.4	10.03	6.23	8.23	
7,630.0	77.38	158.82	7,245.3	64.2	879.3	217.4	12.90	10.94	7.06	
7,661.0	81.67	160.65	7,251.0	35.6	889.8	247.8	15.01	13.84	5.90	

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Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad: Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,688.0	85.93	161.62	7,253.9	10.2	898.5	274.7	16.18	15.78	3.59
7,726.0	89.80	162.35	7,255.3	-25.9	910.2	312.6	10.36	10.18	1.92
7,813.0	90.71	161.42	7,254.9	-108.6	937.3	399.6	1.50	1.05	-1.07
7,907.0	90.54	161.02	7,253.9	-197.6	967.6	493.6	0.46	-0.18	-0.43
8,001.0	88.59	161.28	7,254.6	-286.5	997.9	587.6	2.09	-2.07	0.28
8,096.0	89.63	161.71	7,256.1	-376.6	1,028.1	682.6	1.18	1.09	0.45
8,190.0	87.35	160.82	7,258.6	-465.6	1,058.2	776.5	2.60	-2.43	-0.95
8,284.0	88.62	161.50	7,261.9	-554.5	1,088.6	870.5	1.53	1.35	0.72
8,378.0	91.07	162.70	7,262.1	-643.9	1,117.5	964.5	2.90	2.61	1.28
8,472.0	89.93	161.89	7,261.3	-733.5	1,146.1	1,058.5	1.49	-1.21	-0.86
8,566.0	90.17	161.55	7,261.2	-822.7	1,175.5	1,152.5	0.44	0.26	-0.36
8,660.0	90.60	161.69	7,260.6	-911.9	1,205.2	1,246.4	0.48	0.46	0.15
8,754.0	91.14	161.07	7,259.2	-1,001.0	1,235.2	1,340.4	0.87	0.57	-0.66
8,848.0	89.50	160.66	7,258.6	-1,089.8	1,266.0	1,434.4	1.80	-1.74	-0.44
8,942.0	91.41	163.02	7,257.9	-1,179.1	1,295.3	1,528.4	3.23	2.03	2.51
9,037.0	89.43	161.27	7,257.2	-1,269.5	1,324.4	1,623.4	2.78	-2.08	-1.84
9,131.0	90.44	162.57	7,257.3	-1,358.9	1,353.6	1,717.4	1.75	1.07	1.38
9,225.0	89.93	161.70	7,257.0	-1,448.3	1,382.4	1,811.4	1.07	-0.54	-0.93
9,319.0	91.24	160.30	7,256.0	-1,537.2	1,413.0	1,905.4	2.04	1.39	-1.49
9,413.0	90.67	157.51	7,254.5	-1,624.9	1,446.8	1,999.2	3.03	-0.61	-2.97
9,508.0	89.16	156.45	7,254.6	-1,712.3	1,484.0	2,093.9	1.94	-1.59	-1.12
9,602.0	91.34	159.57	7,254.2	-1,799.4	1,519.2	2,187.7	4.05	2.32	3.32
9,696.0	90.81	161.29	7,252.4	-1,888.0	1,550.7	2,281.7	1.91	-0.56	1.83
9,790.0	88.96	161.18	7,252.6	-1,977.0	1,580.9	2,375.7	1.97	-1.97	-0.12
9,884.0	91.92	166.49	7,251.9	-2,067.2	1,607.1	2,469.6	6.47	3.15	5.65
9,978.0	91.98	165.61	7,248.7	-2,158.4	1,629.7	2,563.2	0.94	0.06	-0.94
10,072.0	89.77	164.76	7,247.3	-2,249.3	1,653.7	2,657.0	2.52	-2.35	-0.90
10,166.0	89.19	162.74	7,248.1	-2,339.5	1,680.0	2,750.9	2.24	-0.62	-2.15
10,261.0	89.83	161.27	7,248.9	-2,429.8	1,709.4	2,845.9	1.69	0.67	-1.55
10,354.0	90.64	163.06	7,248.6	-2,518.4	1,737.9	2,938.9	2.11	0.87	1.92
10,449.0	90.94	162.49	7,247.2	-2,609.1	1,766.0	3,033.9	0.68	0.32	-0.60
10,543.0	88.99	160.59	7,247.3	-2,698.3	1,795.8	3,127.9	2.90	-2.07	-2.02
10,637.0	89.50	161.15	7,248.5	-2,787.1	1,826.6	3,221.9	0.81	0.54	0.60
10,730.0	88.42	159.64	7,250.2	-2,874.6	1,857.8	3,314.8	2.00	-1.16	1.62
10,824.0	91.95	162.57	7,249.9	-2,963.6	1,888.2	3,408.8	4.88	3.76	3.12
10,918.0	89.90	160.20	7,248.4	-3,052.6	1,918.2	3,502.8	3.33	-2.18	-2.52
11,012.0	90.13	159.41	7,248.4	-3,140.8	1,950.6	3,596.7	0.88	0.24	-0.84
11,106.0	91.21	159.79	7,247.3	-3,228.9	1,983.4	3,690.7	1.22	1.15	0.40
11,200.0	91.28	159.59	7,245.2	-3,317.1	2,016.0	3,784.6	0.23	0.07	-0.21
11,294.0	89.06	155.63	7,245.0	-3,404.0	2,051.8	3,878.4	4.83	-2.36	-4.21
11,388.0	88.89	158.09	7,246.6	-3,490.4	2,088.8	3,972.0	2.62	-0.18	2.62
11,483.0	91.38	162.15	7,246.4	-3,579.7	2,121.0	4,067.0	5.01	2.62	4.27

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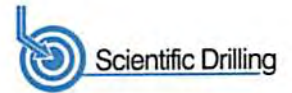
Scientific Drilling International
Survey Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad:Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,577.0	92.12	162.06	7,243.6	-3,669.1	2,149.9	4,160.9	0.79	0.79	-0.10
11,671.0	92.15	165.04	7,240.1	-3,759.2	2,176.5	4,254.8	3.17	0.03	3.17
11,765.0	91.24	164.62	7,237.3	-3,849.9	2,201.1	4,348.6	1.07	-0.97	-0.45
11,859.0	90.60	163.60	7,235.8	-3,940.3	2,226.8	4,442.5	1.28	-0.68	-1.09
11,954.0	90.17	162.19	7,235.1	-4,031.1	2,254.8	4,537.4	1.55	-0.45	-1.48
12,048.0	91.38	163.61	7,233.9	-4,120.9	2,282.4	4,631.4	1.98	1.29	1.51
12,142.0	90.94	161.45	7,231.9	-4,210.5	2,310.6	4,725.4	2.34	-0.47	-2.30
12,236.0	91.38	161.36	7,230.0	-4,299.6	2,340.6	4,819.3	0.48	0.47	-0.10
12,330.0	91.38	160.96	7,227.8	-4,388.5	2,370.9	4,913.3	0.43	0.00	-0.43
12,424.0	89.63	162.22	7,227.0	-4,477.7	2,400.6	5,007.3	2.29	-1.86	1.34
12,518.0	91.11	163.27	7,226.3	-4,567.5	2,428.5	5,101.3	1.93	1.57	1.12
12,612.0	91.34	162.02	7,224.3	-4,657.2	2,456.5	5,195.2	1.35	0.24	-1.33
12,706.0	88.69	156.13	7,224.1	-4,744.9	2,490.1	5,289.1	6.79	-2.61	-6.27
12,800.0	89.83	158.15	7,225.2	-4,831.5	2,526.6	5,382.8	2.37	1.00	2.15
12,894.0	90.44	160.60	7,225.0	-4,919.5	2,559.7	5,476.7	2.69	0.65	2.61
12,988.0	89.70	162.80	7,224.9	-5,008.7	2,589.2	5,570.7	2.47	-0.79	2.34
13,082.0	91.91	163.35	7,223.5	-5,098.7	2,616.6	5,664.7	2.42	2.35	0.59
13,176.0	90.34	163.32	7,221.7	-5,188.7	2,643.5	5,758.6	1.67	-1.67	-0.03
13,270.0	89.19	159.51	7,222.1	-5,277.8	2,673.5	5,852.6	4.23	-1.22	-4.05
13,364.0	89.33	162.65	7,223.3	-5,366.7	2,704.0	5,946.6	3.34	0.15	3.34
13,458.0	90.71	164.02	7,223.3	-5,456.7	2,730.9	6,040.5	2.07	1.47	1.46
13,552.0	89.40	164.24	7,223.2	-5,547.1	2,756.6	6,134.4	1.41	-1.39	0.23
13,646.0	89.46	164.38	7,224.1	-5,637.6	2,782.0	6,228.3	0.16	0.06	0.15
13,740.0	90.34	164.27	7,224.3	-5,728.1	2,807.4	6,322.2	0.94	0.94	-0.12
13,834.0	90.50	163.16	7,223.6	-5,818.4	2,833.8	6,416.1	1.19	0.17	-1.18
13,928.0	90.64	162.49	7,222.6	-5,908.2	2,861.6	6,510.1	0.73	0.15	-0.71
14,022.0	88.05	161.13	7,223.7	-5,997.5	2,890.9	6,604.1	3.11	-2.76	-1.45
14,116.0	89.87	159.40	7,225.4	-6,085.9	2,922.6	6,698.0	2.67	1.94	-1.84
14,210.0	89.03	156.33	7,226.3	-6,173.0	2,958.0	6,791.8	3.39	-0.89	-3.27
14,304.0	91.27	156.76	7,226.1	-6,259.2	2,995.4	6,885.5	2.43	2.38	0.46
14,398.0	88.83	157.39	7,226.0	-6,345.8	3,032.1	6,979.2	2.68	-2.60	0.67
14,493.0	89.53	160.96	7,227.4	-6,434.5	3,065.8	7,074.1	3.83	0.74	3.76
14,587.0	92.65	163.69	7,225.6	-6,524.1	3,094.4	7,168.0	4.41	3.32	3.90
14,681.0	92.38	161.82	7,221.4	-6,613.7	3,122.2	7,261.9	2.01	-0.29	-1.99
14,774.0	91.11	162.88	7,218.6	-6,702.3	3,150.4	7,354.8	1.78	-1.37	-1.44
14,868.0	91.88	165.43	7,216.2	-6,792.7	3,176.0	7,448.7	2.83	0.82	2.71
14,962.0	91.91	166.19	7,213.1	-6,883.8	3,199.1	7,542.4	0.81	0.03	0.81
Last SDI MWD @ 14962									
15,034.0	91.91	166.19	7,210.7	-6,953.7	3,216.2	7,614.1	0.00	0.00	0.00
Projection To Bit @ 15034 MD / 7210 TVD									

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Company:	Antero Resources	Local Co-ordinate Reference:	Well McCue Unit 2H
Project:	Doddridge County WV	TVD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Site:	Revival Pad:Koch/Gains/McCue/Mt Salem Revival/Milo	MD Reference:	Patterson 340: 1375' GL + 24' KB @ 1399.0usft
Well:	McCue Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Antero NE

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,115.0	6,960.6	Middlesex @ 7115		0.00		
7,305.0	7,107.8	Burket @ 7305		0.00		
7,352.0	7,136.0	Tully @ 7352		0.00		
7,532.0	7,216.9	Marcellus @ 7532		0.00		

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
6,659.0	6,554.1	313.6	440.6	First SDI MWD @ 6659	
14,962.0	7,213.1	-6,883.8	3,199.1	Last SDI MWD @ 14962	
15,034.0	7,210.7	-6,953.7	3,216.2	Projection To Bit @ 15034 MD / 7210 TVD	

Checked By: _____ Approved By: _____ Date: _____

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