

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-033-05695 County Harrison District Union
Quad West Milford Pad Name Bowyer Pad Field/Pool Name _____
Farm name Bowyer, Matt E. & Lisa Devought Well Number Tenmile Unit 1H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,339,276.090m Easting 544,078.067m
Landing Point of Curve Northing 4,339,270.45m Easting 543,655.10m
Bottom Hole Northing 4,341,666.595m Easting 542,832.992m

Elevation (ft) 1,278' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Air- Foam & 4% KCL

Mud- Polymer

Date permit issued 12/26/2012 Date drilling commenced 03/28/2013 Date drilling ceased 07/20/2013
Date completion activities began 09/25/2013 Date completion activities ceased 03/24/2014
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 102', 204' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1,466'; 1,762' Void(s) encountered (Y/N) depths None
Coal depth(s) ft 391' Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

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Reviewed by:
JK
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API 47-033 - 05695 Farm name Bowyer, Matt E. & Lisa Devought Well number Tenmile Unit 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	20"	40'	New	94#; H-40	N/A	Yes
Surface	17 1/2"	13 3/8"	417'	New	48#; J-55	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,566'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	16,034'	New	20#; P-110	N/A	Yes
Tubing		2 3/8"	7,525'		4.7# N-80	N/A	
Packer type and depth set		N/A					

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	75 sx	15.6	1.2	38	0'	8 Hrs.
Surface	Class A	514 sx	15.6	1.18	290	0'	8 Hrs.
Coal							
Intermediate 1	Class A	948 sx	15.6	1.18	804	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,158 sx (Lead); 1,331 sx (Tail)	14.5 (Lead); 15.2 (Tail)	1.3 (Lead); 1.86 (Tail)	3,200	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16,034' MD; 7,270' TVD (BHL); 7,278' TVD (Deepest Point Drilled) Loggers TD (ft) 15,988'
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 7,034'

**This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Winnie Unit 2H, API #47-033-05615). Please reference the wireline logs submitted with Form WR-35 for the Winnie Unit 2H. A Cement Bond Log has been included with this submital.

Check all wireline logs run **
 caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Conductor- 0
 Surface- 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface
 Intermediate- 1 above float joint, 1 above float collar, 1 every 4th joint to surface
 Production- 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47- 033 - 05695 Farm name Bowyer, Matt E. & Lisa Devought Well number Tenmile Unit 1H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
		* PLEASE SEE ATTACHED EXHIBIT 1			

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
		* PLEASE SEE ATTACHED EXHIBIT 2						

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API 47- 033 - 05695 Farm name Bowyer, Matt E. & Lisa Devought Well number Tenmile Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>7,090' (top)</u> TVD	<u>7,481' (top)</u> MD
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3,600 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 8,682 mcfpd Oil _____ bpd NGL _____ bpd Water 122 bpd
 GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>		<u>BOTTOM</u>		<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		

*** PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Patterson - UTI Drilling Company, LLC
 Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Nine Energy Service (FKA CDK Perforating)
 Address 125 Museum Rd. City Washington State PA Zip 15301

Cementing Company Nabors Completion & Production Services Co.
 Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Baker Hughes
 Address 837 Philippi Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Megan Darling Telephone 303-357-7230
 Signature Megan C. Darling Title Permitting Agent Date 08/07/2015

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	25-Sep-13	15,704	15,979	60	Marcellus
2	5-Feb-14	15,477	15,669	60	Marcellus
3	5-Feb-14	15,250	15,442	60	Marcellus
4	5-Feb-14	15,023	15,214	60	Marcellus
5	6-Feb-14	14,796	14,987	60	Marcellus
6	6-Feb-14	14,569	14,760	60	Marcellus
7	6-Feb-14	14,341	14,533	60	Marcellus
8	7-Feb-14	14,114	14,305	60	Marcellus
9	7-Feb-14	13,887	14,078	60	Marcellus
10	7-Feb-14	13,660	13,851	60	Marcellus
11	8-Feb-14	13,432	13,624	60	Marcellus
12	8-Feb-14	13,205	13,397	60	Marcellus
13	8-Feb-14	12,978	13,169	60	Marcellus
14	9-Feb-14	12,751	12,942	60	Marcellus
15	9-Feb-14	12,524	12,715	60	Marcellus
16	9-Feb-14	12,296	12,488	60	Marcellus
17	9-Feb-14	12,069	12,260	60	Marcellus
18	10-Feb-14	11,842	12,033	60	Marcellus
19	10-Feb-14	11,615	11,806	60	Marcellus
20	10-Feb-14	11,387	11,579	60	Marcellus
21	10-Feb-14	11,160	11,352	60	Marcellus
22	11-Feb-14	10,933	11,124	60	Marcellus
23	11-Feb-14	10,706	10,897	60	Marcellus
24	11-Feb-14	10,479	10,670	60	Marcellus
25	11-Feb-14	10,251	10,443	60	Marcellus
26	12-Feb-14	10,024	10,215	60	Marcellus
27	12-Feb-14	9,797	9,988	60	Marcellus
28	12-Feb-14	9,570	9,761	60	Marcellus
29	13-Feb-14	9,342	9,534	60	Marcellus
30	13-Feb-14	9,115	9,307	60	Marcellus
31	14-Feb-14	8,888	9,079	60	Marcellus
32	14-Feb-14	8,661	8,852	60	Marcellus
33	14-Feb-14	8,434	8,625	60	Marcellus
34	14-Feb-14	8,206	8,398	60	Marcellus
35	15-Feb-14	7,979	8,171	60	Marcellus
36	15-Feb-14	7,752	7,943	60	Marcellus
37	15-Feb-14	7,525	7,716	60	Marcellus

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EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	4-Feb-14	44.0	8,465	N/A	5,471	26,460	7,087	N/A
2	5-Feb-14	64.0	7,832	6,118	6,033	115,881	7,391	N/A
3	5-Feb-14	71.0	7,848	6,768	6,137	162,870	7,551	N/A
4	5-Feb-14	74.0	8,171	6,922	4,999	219,409	7,509	N/A
5	6-Feb-14	71.0	8,444	7,244	4,775	183,218	7,089	N/A
6	6-Feb-14	78.0	8,282	6,735	5,258	258,695	7,056	N/A
7	6-Feb-14	77.0	8,271	6,919	5,022	282,900	7,203	N/A
8	7-Feb-14	75.0	8,246	6,694	5,565	274,372	7,395	N/A
9	7-Feb-14	74.0	8,000	6,262	5,488	262,699	7,370	N/A
10	7-Feb-14	76.0	8,321	6,381	4,965	275,565	7,107	N/A
11	8-Feb-14	76.0	8,294	6,219	4,793	220,652	7,368	N/A
12	8-Feb-14	76.0	8,071	6,341	4,578	254,106	7,487	N/A
13	8-Feb-14	75.0	7,856	6,163	4,729	277,514	6,979	N/A
14	9-Feb-14	75.0	7,358	6,364	5,657	278,120	6,932	N/A
15	9-Feb-14	79.0	7,142	6,137	4,464	267,139	6,844	N/A
16	9-Feb-14	79.0	7,969	6,225	4,514	274,831	6,820	N/A
17	9-Feb-14	79.0	7,705	6,209	4,914	279,702	6,839	N/A
18	10-Feb-14	74.0	7,359	5,705	4,874	274,445	7,033	N/A
19	10-Feb-14	80.0	7,727	6,054	4,343	274,693	6,759	N/A
20	10-Feb-14	81.0	7,834	6,268	4,456	277,079	6,757	N/A
21	10-Feb-14	78.0	7,751	6,497	4,122	272,397	6,875	N/A
22	11-Feb-14	79.0	7,726	5,802	3,998	278,072	6,844	N/A
23	11-Feb-14	74.0	7,367	5,596	5,255	212,748	7,231	N/A
24	11-Feb-14	75.0	7,911	5,901	4,211	224,920	7,101	N/A
25	11-Feb-14	78.0	7,728	5,707	3,687	274,495	6,799	N/A
26	12-Feb-14	77.0	7,409	5,925	4,464	278,336	6,778	N/A
27	12-Feb-14	78.0	7,313	5,867	4,647	276,999	6,685	N/A
28	12-Feb-14	77.0	7,778	5,920	4,461	219,913	6,897	N/A
29	13-Feb-14	75.0	7,071	5,872	4,387	280,099	7,164	N/A
30	13-Feb-14	70.0	7,971	6,087	5,648	194,293	7,195	N/A
31	14-Feb-14	76.0	7,293	6,159	4,650	255,506	6,946	N/A
32	14-Feb-14	78.0	7,203	5,988	4,517	247,902	6,359	N/A
33	14-Feb-14	79.0	6,691	5,772	4,425	275,383	6,651	N/A
34	14-Feb-14	78.0	6,863	6,359	4,487	275,821	6,896	N/A
35	15-Feb-14	77.0	6,894	6,633	4,588	275,406	6,964	N/A
36	15-Feb-14	74.0	6,735	6,059	4,669	277,366	7,044	N/A
37	15-Feb-14	79.0	6,830	6,521	4,583	274,695	6,468	N/A
	AVG=	75.1	7,668	6,233	4,806	9,134,701	259,473	TOTAL

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LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Fresh Water	102'	N/A	102'	N/A
Fresh Water	204'	N/A	204'	N/A
Sandy Siltstone	0	281	0	281
Siltstone	est. 281	326	est. 281	326
Sandstone	est. 326	391	est. 326	391
Coal	est. 391	421	est. 391	421
Sandstone	est. 421	571	est. 421	571
Sandy Shale	est. 571	876	est. 571	876
Sandstone	est. 876	1,026	est. 876	1,026
Shale	est. 1026	1,071	est. 1026	1,071
Sandstone	est. 1071	1,176	est. 1071	1,176
Sandy Shale	est. 1176	1,266	est. 1176	1,266
Sandy Siltstone	est. 1266	1,326	est. 1266	1,326
Shale	est. 1326	1,416	est. 1326	1,416
Sandstone	est. 1416	1,476	est. 1416	1,476
Shale	est. 1476	1,526	est. 1476	1,526
Limey Shale	est. 1526	1,746	est. 1526	1,746
Big Lime	1,746	1,860	1,746	1,860
Big Injun	1,860	2,106	1,860	2,106
Gantz Sand	2,106	2,225	2,106	2,225
Fifty Foot Sandstone	2,225	2,330	2,225	2,330
Gordon	2,330	2,569	2,330	2,569
Fifth Sandstone	2,569	2,630	2,569	2,630
Bayard	2,630	3,045	2,630	3,045
Warren	3,045	3,330	3,045	3,330
Speechley	3,330	3,557	3,330	3,557
Baltown	3,557	4,084	3,557	4,085
Bradford	4,084	4,724	4,085	4,733
Benson	4,724	5,049	4,733	5,080
Alexander	5,049	5,331	5,080	5,398
Elk	5,331	5,653	5,398	5,764
Rhinestreet	5,653	6,453	5,764	6,670
Sycamore	6,453	6,705	6,670	6,954
Middlesex	6,705	6,872	6,954	7,146
Burkett	6,872	6,900	7,146	7,180
Tully	6,900	7,090	7,180	7,481
Marcellus	7,090	NA	7,481	NA

*Please note Antero determines shallow formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

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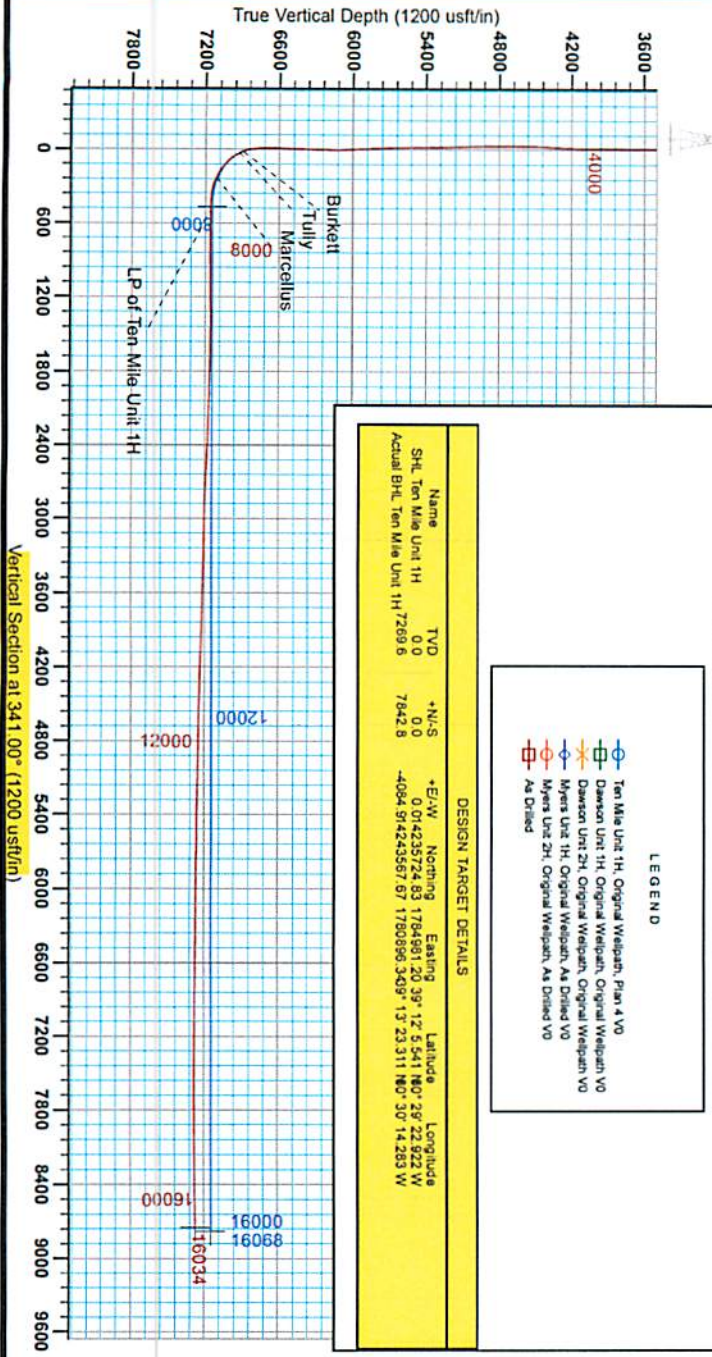
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Antero Resources
 Ten Mile Unit 1H
 Harrison County West Virginia
 Northing: 14235724.83
 Easting: 1784981.20
 As Drilled



WELL DETAILS: Ten Mile Unit 1H

+N/S	+E/W	Northing	Ground Level	1278.0	Longitude	Site
0.0	0.0	14235724.83	Easting	1784981.20	39° 12' 5.841" N 00° 29' 22.822" W	

PROJECT DETAILS: Harrison County West Virginia
 Geologic System: Universal Traverse Mercator (US Survey Feet)
 Datum: NAD 1983 (NAD83 CONUS)
 Ellipsoid: GRS 80
 Spheroid: Clarke 1866
 Prime Meridian: 76° 10' 17.16" W (76 W)
 System Datum: Mean Sea Level

REFERENCE INFORMATION:
 Client: Antero Resources, Inc., 1111 11th St, Suite 800, Denver, CO 80202
 Project: Ten Mile Unit 1H, Original Wellpath, Original Wellpath VO
 Well: Ten Mile Unit 1H, Original Wellpath, Original Wellpath VO
 Draw: 10/1/2013, 11:00 AM
 Author: [Name], 11/17/2013, 11:00 AM
 Checked: [Name], 11/17/2013, 11:00 AM
 Date: 10/1/2013
 Model: 10/1/2013

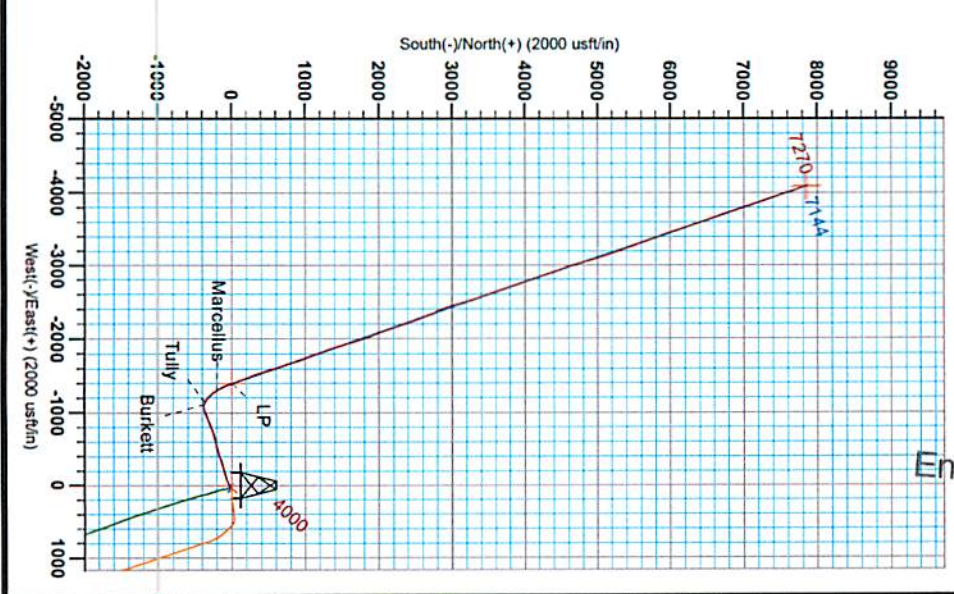
Genie Lightfoot
 13:42, August 02 2013
 Scientific Drilling
 421 South Eagle Lane
 Oklahoma City, OK

LEGEND

- Ten Mile Unit 1H, Original Wellpath, Plan A VO
- Dawson Unit 2H, Original Wellpath, Original Wellpath VO
- Myers Unit 2H, Original Wellpath, As Drilled VO
- As Drilled

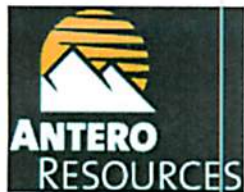
DESIGN TARGET DETAILS

Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
Shl. Ten Mile Unit 1H	0.0	0.0	7842.8	0.01423572483	1784981.2039	39° 12' 5.841" N 00° 29' 22.822" W	
Actual BHL Ten Mile Unit 1H	7269.6			-4094.91424356767	1780896.3409	39° 13' 23.311" N 00° 30' 14.283" W	



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Antero Resources

Harrison County West Virginia
Winnie/Dawson/Tenmile Pad
Ten Mile Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

02 August, 2013

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Company:	Antero Resources	Local Co-ordinate Reference:	Well Ten Mile Unit 1H
Project:	Harrison County West Virginia	TVD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Site:	Winnie/Dawson/Tenmile Pad	MD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Well:	Ten Mile 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	Winnie/Dawson/Tenmile Pad				
Site Position:		Northing:	14,235,752.63 usft	Latitude:	39° 12' 5.817 N
From:	Map	Easting:	1,784,952.46 usft	Longitude:	80° 29' 23.285 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.32 °

Well	Ten Mile Unit 1H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,235,724.83 usft	Latitude:	39° 12' 5.541 N
	+E/-W	0.0 usft	Easting:	1,784,981.20 usft	Longitude:	80° 29' 22.922 W
Position Uncertainty		2.0 usft	Wellhead Elevation:	1,291.0 usft	Ground Level:	1,278.0 usft

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/31/2013	-8.61	66.82	52,362

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	341.00

Survey Program	Date	8/2/2013			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	6,849.1	Survey #3 Def Gyro to KOP (Original Well	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,849.1	16,034.0	Survey #4 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	

Survey								
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	
100.0	0.29	113.75	100.0	-0.1	0.2	-0.2	0.29	
200.0	0.37	122.41	200.0	-0.4	0.7	-0.6	0.09	
300.0	0.46	129.53	300.0	-0.8	1.3	-1.2	0.10	
400.0	0.34	129.69	400.0	-1.3	1.9	-1.8	0.12	
500.0	0.25	157.14	500.0	-1.6	2.2	-2.3	0.17	
600.0	0.32	140.92	600.0	-2.1	2.4	-2.7	0.11	
700.0	0.18	131.13	700.0	-2.4	2.7	-3.1	0.15	
800.0	0.32	151.05	800.0	-2.7	3.0	-3.5	0.16	
900.0	0.17	145.95	900.0	-3.1	3.2	-4.0	0.15	
1,000.0	0.38	146.45	1,000.0	-3.5	3.5	-4.4	0.21	

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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Ten Mile Unit 1H
Project:	Harrison County West Virginia	TVD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Site:	Winnie/Dawson/Tenmile Pad	MD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Well:	Ten Mile Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,100.0	0.34	134.62	1,100.0	-4.0	3.9	-5.0	0.08
1,200.0	0.32	128.06	1,200.0	-4.4	4.3	-5.5	0.04
1,300.0	0.22	146.93	1,300.0	-4.7	4.6	-5.9	0.13
1,400.0	0.07	150.52	1,400.0	-4.9	4.7	-6.2	0.15
1,500.0	0.26	120.60	1,500.0	-5.1	5.0	-6.4	0.20
1,600.0	0.08	134.94	1,600.0	-5.2	5.2	-6.7	0.18
1,700.0	0.21	83.40	1,700.0	-5.3	5.4	-6.8	0.17
1,800.0	0.21	109.36	1,800.0	-5.3	5.8	-6.9	0.09
1,900.0	0.23	61.62	1,900.0	-5.3	6.2	-7.0	0.18
2,000.0	0.25	93.75	2,000.0	-5.2	6.5	-7.0	0.13
2,100.0	0.28	67.44	2,100.0	-5.1	7.0	-7.1	0.12
2,200.0	0.23	64.60	2,200.0	-4.9	7.4	-7.1	0.05
2,300.0	0.21	103.34	2,300.0	-4.9	7.8	-7.1	0.15
2,400.0	0.30	87.25	2,400.0	-4.9	8.2	-7.3	0.11
2,500.0	0.67	75.32	2,500.0	-4.8	9.0	-7.4	0.38
2,600.0	0.32	92.85	2,600.0	-4.6	9.9	-7.6	0.38
2,700.0	0.26	88.43	2,700.0	-4.6	10.4	-7.8	0.06
2,800.0	0.37	78.50	2,800.0	-4.6	10.9	-7.9	0.12
2,900.0	0.43	81.20	2,900.0	-4.4	11.6	-8.0	0.06
3,000.0	0.40	103.31	3,000.0	-4.5	12.3	-8.2	0.16
3,100.0	0.42	82.69	3,100.0	-4.5	13.0	-8.5	0.15
3,200.0	0.50	100.00	3,200.0	-4.5	13.8	-8.8	0.16
3,300.0	0.41	92.26	3,299.9	-4.6	14.6	-9.1	0.11
3,400.0	0.49	92.96	3,399.9	-4.6	15.4	-9.4	0.08
3,500.0	0.47	101.22	3,499.9	-4.8	16.2	-9.8	0.07
3,600.0	0.38	103.75	3,599.9	-4.9	16.9	-10.2	0.09
3,700.0	0.35	79.55	3,699.9	-4.9	17.6	-10.4	0.16
3,800.0	0.30	88.01	3,799.9	-4.9	18.1	-10.5	0.07
3,900.0	0.21	87.70	3,899.9	-4.9	18.6	-10.6	0.09
4,000.0	0.23	132.97	3,999.9	-5.0	18.9	-10.9	0.17
4,100.0	2.34	240.45	4,099.9	-6.1	17.3	-11.4	2.42
4,200.0	5.77	218.93	4,199.6	-11.0	12.3	-14.5	3.69
4,300.0	8.19	231.39	4,298.9	-19.4	3.6	-19.5	2.84
4,400.0	10.63	230.61	4,397.6	-29.7	-9.1	-25.1	2.44
4,500.0	10.89	243.07	4,495.8	-39.8	-24.6	-29.6	2.34
4,600.0	11.57	250.89	4,593.9	-47.4	-42.5	-31.0	1.67
4,700.0	13.94	250.55	4,691.4	-54.7	-63.4	-31.1	2.37
4,800.0	17.71	250.85	4,787.6	-63.7	-89.1	-31.2	3.77
4,900.0	20.21	251.65	4,882.2	-74.1	-119.9	-31.1	2.51
5,000.0	22.83	253.23	4,975.2	-85.2	-154.9	-30.1	2.68
5,100.0	25.03	255.43	5,066.6	-96.1	-193.9	-27.7	2.37
5,200.0	26.83	254.82	5,156.5	-107.3	-236.2	-24.6	1.82
5,300.0	27.70	254.26	5,245.4	-119.5	-280.3	-21.8	0.91
5,400.0	29.38	253.05	5,333.3	-133.0	-326.2	-19.6	1.78

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Site:	Winnie/Dawson/Tenmile Pad	MD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Well:	Ten Mile Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
5,500.0	29.47	252.02	5,420.4	-147.7	-373.0	-18.2	0.51	
5,600.0	28.60	250.87	5,507.8	-163.2	-419.0	-17.9	1.03	
5,700.0	27.60	249.55	5,596.0	-179.1	-463.4	-18.5	1.18	
5,800.0	27.20	254.89	5,684.8	-193.2	-507.1	-17.5	2.49	
5,900.0	26.73	257.89	5,773.9	-203.8	-551.2	-13.3	1.44	
6,000.0	27.98	257.19	5,862.8	-213.8	-596.1	-8.1	1.29	
6,100.0	27.79	257.08	5,951.1	-224.2	-641.6	-3.1	0.20	
6,200.0	29.26	255.63	6,039.0	-235.4	-688.0	1.4	1.62	
6,300.0	28.21	251.09	6,126.7	-249.2	-734.1	3.4	2.42	
6,400.0	27.36	246.57	6,215.2	-266.0	-777.5	1.7	2.27	
6,500.0	26.80	247.59	6,304.2	-283.7	-819.5	-1.5	0.73	
6,600.0	26.39	248.04	6,393.6	-300.6	-860.9	-3.9	0.46	
6,700.0	28.34	248.16	6,482.4	-317.8	-903.6	-6.3	1.95	
6,800.0	27.98	247.45	6,570.6	-335.6	-947.3	-8.9	0.49	
6,849.1	27.95	247.26	6,614.0	-344.4	-968.5	-10.4	0.19	
6,908.0	27.60	249.85	6,666.1	-354.5	-994.0	-11.5	2.13	
6,940.0	27.16	253.61	6,694.5	-359.1	-1,008.0	-11.4	5.58	
6,969.0	26.77	253.90	6,720.4	-362.8	-1,020.6	-10.7	1.42	
7,003.0	25.85	254.51	6,750.8	-366.9	-1,035.1	-9.9	2.82	
7,034.0	26.46	260.32	6,778.7	-369.8	-1,048.5	-8.3	8.49	
7,064.0	27.52	264.75	6,805.4	-371.6	-1,062.0	-5.6	7.57	
7,097.0	29.39	274.42	6,834.4	-371.7	-1,077.6	-0.6	15.05	
7,128.0	31.86	276.94	6,861.1	-370.1	-1,093.3	6.0	8.98	
7,158.0	33.72	283.19	6,886.3	-367.2	-1,109.3	13.9	12.87	
7,170.0	34.30	285.49	6,896.3	-365.6	-1,115.8	17.6	11.76	
Burkett								
7,190.0	35.36	289.17	6,912.7	-362.2	-1,126.7	24.4	11.76	
7,204.0	36.40	291.81	6,924.0	-359.3	-1,134.4	29.6	13.31	
Tully								
7,222.0	37.81	295.02	6,938.4	-355.0	-1,144.4	36.9	13.31	
7,252.0	41.07	299.25	6,961.6	-346.3	-1,161.3	50.7	14.08	
7,284.0	44.41	303.32	6,985.1	-335.0	-1,179.8	67.4	13.54	
7,315.0	46.82	307.33	7,006.8	-322.2	-1,197.9	85.4	12.08	
7,346.0	49.50	311.82	7,027.4	-307.4	-1,215.7	105.1	13.82	
7,378.0	52.33	316.58	7,047.6	-290.1	-1,233.4	127.3	14.54	
7,409.0	55.22	320.84	7,065.9	-271.3	-1,249.9	150.4	14.48	
7,439.0	58.07	324.06	7,082.4	-251.5	-1,265.2	174.1	13.06	
7,472.0	61.73	326.90	7,099.0	-227.9	-1,281.3	201.6	13.36	
7,503.0	65.25	329.19	7,112.8	-204.4	-1,296.0	228.7	13.14	
7,505.0	65.42	329.11	7,113.7	-202.8	-1,297.0	230.5	9.16	
Marcellus								
7,532.0	67.72	328.12	7,124.4	-181.7	-1,309.9	254.6	9.16	
7,566.0	73.00	332.41	7,135.8	-153.9	-1,325.7	286.1	19.55	
7,597.0	77.03	332.88	7,143.8	-127.3	-1,339.5	315.7	13.08	
7,628.0	80.72	334.46	7,149.8	-100.0	-1,353.0	345.9	12.91	

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Site:	Winnie/Dawson/Tenmile Pad	MD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Well:	Ten Mile Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

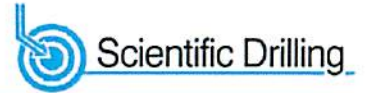
Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,660.0	84.33	336.39	7,154.0	-71.2	-1,366.1	377.5	12.77
7,717.0	89.25	339.12	7,157.2	-18.5	-1,387.7	434.2	9.87
7,785.0	90.27	339.36	7,157.5	45.0	-1,411.8	502.2	1.54
7,879.0	90.03	341.90	7,157.2	133.7	-1,443.0	596.2	2.71
7,974.0	89.16	337.84	7,157.9	222.9	-1,475.6	691.2	4.37
8,067.0	89.02	340.57	7,159.4	309.8	-1,508.6	784.1	2.94
8,161.0	89.30	343.41	7,160.7	399.2	-1,537.7	878.1	3.04
8,255.0	91.51	341.80	7,160.1	488.9	-1,565.8	972.0	2.91
8,349.0	90.81	341.06	7,158.2	578.0	-1,595.7	1,066.0	1.08
8,444.0	91.01	342.97	7,156.7	668.3	-1,625.1	1,161.0	2.02
8,537.0	90.54	341.60	7,155.4	756.9	-1,653.4	1,253.9	1.56
8,631.0	90.20	344.16	7,154.8	846.7	-1,681.0	1,347.9	2.75
8,725.0	88.83	340.95	7,155.6	936.4	-1,709.2	1,441.8	3.71
8,819.0	89.87	338.61	7,156.7	1,024.6	-1,741.7	1,535.8	2.72
8,913.0	88.59	337.49	7,157.9	1,111.7	-1,776.8	1,629.6	1.81
9,007.0	88.55	341.89	7,160.3	1,199.8	-1,809.4	1,723.6	4.68
9,101.0	89.66	339.37	7,161.7	1,288.5	-1,840.6	1,817.5	2.93
9,192.0	89.19	341.31	7,162.6	1,374.2	-1,871.2	1,908.5	2.19
9,283.0	88.52	345.65	7,164.5	1,461.4	-1,897.1	1,999.4	4.82
9,375.0	87.91	343.26	7,167.3	1,550.0	-1,921.7	2,091.2	2.68
9,466.0	88.99	344.46	7,169.8	1,637.4	-1,947.0	2,182.0	1.77
9,557.0	88.39	344.31	7,171.9	1,725.0	-1,971.5	2,272.8	0.68
9,648.0	87.81	340.82	7,174.9	1,811.7	-1,998.7	2,363.8	3.89
9,739.0	87.05	337.18	7,179.0	1,896.6	-2,031.3	2,454.6	4.08
9,830.0	87.01	337.45	7,183.7	1,980.4	-2,066.4	2,545.3	0.30
9,922.0	87.85	341.78	7,187.8	2,066.6	-2,098.4	2,637.1	4.79
10,013.0	87.31	342.48	7,191.7	2,153.1	-2,126.3	2,728.0	0.97
10,104.0	87.95	341.07	7,195.4	2,239.5	-2,154.7	2,818.9	1.70
10,195.0	89.16	342.75	7,197.7	2,325.9	-2,182.9	2,909.9	2.27
10,289.0	88.52	338.53	7,199.6	2,414.6	-2,214.1	3,003.9	4.54
10,383.0	89.56	342.34	7,201.2	2,503.1	-2,245.6	3,097.8	4.20
10,477.0	87.68	337.14	7,203.5	2,591.2	-2,278.1	3,191.7	5.88
10,571.0	89.23	337.80	7,206.0	2,678.0	-2,314.1	3,285.5	1.79
10,665.0	88.59	335.45	7,207.8	2,764.3	-2,351.4	3,379.2	2.59
10,761.0	88.55	337.89	7,210.2	2,852.4	-2,389.4	3,474.9	2.54
10,854.0	87.25	338.58	7,213.6	2,938.7	-2,423.8	3,567.7	1.58
10,949.0	88.89	346.18	7,216.8	3,029.1	-2,452.5	3,662.6	8.18
11,043.0	89.09	344.81	7,218.4	3,120.1	-2,476.1	3,756.3	1.47
11,138.0	87.85	343.21	7,221.0	3,211.4	-2,502.2	3,851.1	2.13
11,231.0	87.92	342.17	7,224.4	3,300.1	-2,529.9	3,944.0	1.12
11,325.0	88.05	340.50	7,227.7	3,389.1	-2,560.0	4,037.9	1.78
11,419.0	88.22	341.03	7,230.8	3,477.8	-2,590.9	4,131.8	0.59
11,514.0	87.79	339.97	7,234.1	3,567.3	-2,622.6	4,226.8	1.20
11,608.0	88.42	341.21	7,237.2	3,655.9	-2,653.8	4,320.8	1.48

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11,702.0	89.63	341.55	7,238.8	3,745.0	-2,683.8	4,414.8	1.34
11,797.0	89.33	340.51	7,239.7	3,834.9	-2,714.7	4,509.7	1.14
11,891.0	87.98	340.80	7,241.9	3,923.5	-2,745.8	4,603.7	1.47
11,985.0	88.66	341.61	7,244.6	4,012.5	-2,776.1	4,697.7	1.12
12,079.0	89.56	340.80	7,246.1	4,101.4	-2,806.4	4,791.7	1.29
12,172.0	89.56	341.59	7,246.8	4,189.5	-2,836.4	4,884.7	0.85
12,267.0	88.39	340.87	7,248.5	4,279.4	-2,866.9	4,979.6	1.45
12,361.0	89.43	341.66	7,250.3	4,368.4	-2,897.1	5,073.6	1.39
12,454.0	89.33	341.70	7,251.3	4,456.7	-2,926.3	5,166.6	0.12
12,548.0	87.55	338.79	7,253.8	4,545.1	-2,958.1	5,260.5	3.63
12,642.0	88.72	341.79	7,256.9	4,633.5	-2,989.8	5,354.5	3.42
12,737.0	89.73	343.16	7,258.2	4,724.1	-3,018.4	5,449.4	1.79
12,831.0	89.77	343.65	7,258.6	4,814.2	-3,045.2	5,543.4	0.52
12,925.0	89.09	344.15	7,259.5	4,904.5	-3,071.3	5,637.2	0.90
13,019.0	88.69	343.62	7,261.4	4,994.8	-3,097.4	5,731.1	0.71
13,113.0	89.70	340.36	7,262.7	5,084.2	-3,126.4	5,825.1	3.63
13,207.0	89.97	340.27	7,263.0	5,172.7	-3,158.1	5,919.0	0.30
13,302.0	89.50	339.00	7,263.4	5,261.7	-3,191.2	6,014.0	1.43
13,396.0	89.93	341.13	7,263.9	5,350.1	-3,223.2	6,108.0	2.31
13,490.0	89.36	340.09	7,264.4	5,438.8	-3,254.4	6,202.0	1.26
13,584.0	89.60	339.71	7,265.3	5,527.0	-3,286.7	6,296.0	0.48
13,679.0	89.87	339.91	7,265.7	5,616.2	-3,319.5	6,390.9	0.35
13,773.0	88.99	337.94	7,266.7	5,703.9	-3,353.3	6,484.9	2.30
13,867.0	89.87	340.02	7,267.6	5,791.6	-3,387.0	6,578.8	2.40
13,961.0	88.79	340.51	7,268.7	5,880.1	-3,418.8	6,672.8	1.26
14,055.0	88.66	340.04	7,270.8	5,968.6	-3,450.5	6,766.8	0.52
14,149.0	89.43	342.79	7,272.4	6,057.6	-3,480.4	6,860.7	3.04
14,242.0	89.36	343.66	7,273.3	6,146.7	-3,507.3	6,953.7	0.94
14,336.0	89.09	341.33	7,274.6	6,236.3	-3,535.5	7,047.6	2.50
14,430.0	89.30	340.54	7,275.9	6,325.1	-3,566.2	7,141.6	0.87
14,524.0	89.76	341.30	7,276.7	6,414.0	-3,597.0	7,235.6	0.95
14,618.0	89.40	339.82	7,277.4	6,502.6	-3,628.2	7,329.6	1.62
14,712.0	89.56	340.90	7,278.2	6,591.1	-3,659.8	7,423.6	1.16
14,806.0	90.77	341.67	7,278.0	6,680.2	-3,690.0	7,517.6	1.53
14,901.0	90.17	341.43	7,277.2	6,770.3	-3,720.1	7,612.6	0.68
14,995.0	90.44	341.73	7,276.7	6,859.5	-3,749.8	7,706.6	0.43
15,089.0	89.80	340.32	7,276.5	6,948.4	-3,780.3	7,800.6	1.65
15,182.0	91.04	341.95	7,275.8	7,036.4	-3,810.4	7,893.5	2.20
15,277.0	90.57	340.94	7,274.5	7,126.4	-3,840.6	7,988.5	1.17
15,372.0	90.20	340.59	7,273.8	7,216.1	-3,871.9	8,083.5	0.54
15,466.0	89.60	340.13	7,274.0	7,304.6	-3,903.5	8,177.5	0.80
15,560.0	90.97	341.04	7,273.5	7,393.3	-3,934.8	8,271.5	1.75
15,654.0	90.20	340.53	7,272.6	7,482.0	-3,965.7	8,365.5	0.98
15,747.0	90.67	342.90	7,271.9	7,570.3	-3,994.9	8,458.5	2.60

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33.05695

EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Ten Mile Unit 1H
Project:	Harrison County West Virginia	TVD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Site:	Winnie/Dawson/Tenmile Pad	MD Reference:	HALL Ten Mile Unit 1H 1278' GL + 13' RKB @ 12
Well:	Ten Mile Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
15,841.0	90.07	341.07	7,271.3	7,659.7	-4,023.9	8,552.5	2.05
15,935.0	90.87	341.80	7,270.5	7,748.8	-4,053.9	8,646.5	1.15
15,983.0	90.40	341.75	7,270.0	7,794.4	-4,068.9	8,694.5	0.98
16,034.0	90.40	341.70	7,269.6	7,842.8	-4,084.9	8,745.5	0.10

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,170.0	6,896.3	-365.6	-1,115.8	Burkett
7,204.0	6,924.0	-359.3	-1,134.4	Tully
7,505.0	7,113.7	-202.8	-1,297.0	Marcellus

Checked By: _____ Approved By: _____ Date: _____

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WV Department of
Environmental Protection
10/23/2015

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/4/2014
Job End Date:	2/15/2014
State:	West Virginia
County:	Harrison
API Number:	47-033-05695-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Tenmile Unit 1H
Longitude:	-80.48970000
Latitude:	39.20153900
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,278
Total Base Water Volume (gal):	11,125,422
Total Base Non Water Volume:	0



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Environmental Protection



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Operator	Carrier	Water	7732-18-5	100.00000	90.55095	
Sand, White, 40/70	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00000	5.14510	
Sand, White, 20/40	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00000	3.08965	
Sand, White, 100 mesh	Baker Hughes	Proppant	Crystalline Silica (Quartz)	14808-60-7	100.00000	0.68292	
HCl, 10.1 - 15%	Baker Hughes	Acidizing	Water	7732-18-5	85.00000	0.18249	SmartCare Product
			Hydrochloric Acid	7647-01-0	15.00000	0.03220	SmartCare Product
GW-3LDF	Baker Hughes	Gelling Agent	Guar Gum	9000-30-0	60.00000	0.07310	SmartCare Product
			Paraffinic Petroleum Distillate	64742-55-8	30.00000	0.03655	SmartCare Product
			Petroleum Distillates	64742-47-8	30.00000	0.03655	SmartCare Product
			Isotridecanol, ethoxylated	9043-30-5	5.00000	0.00609	SmartCare Product
			1-butoxy-2-propanol	5131-66-8	5.00000	0.00609	SmartCare Product
			Crystalline Silica: Quartz	14808-60-7	5.00000	0.00609	SmartCare Product
Enzyme G-NE	Baker Hughes	Breaker					

33.05695

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		No hazardous ingredients	NA	100.00000	0.02042	SmartCare Product
FRW-18	Baker Hughes	Friction Reducer				
		Petroleum Distillates	64742-47-8	30.00000	0.01955	SmartCare Product
Alpha 1427	Baker Hughes	Biocide				
		Glutaraldehyde	111-30-8	30.00000	0.00363	SmartCare Product
		Didecyl Dimethyl Ammonium Chloride	7173-51-5	10.00000	0.00121	SmartCare Product
		Quaternary Ammonium Compound	68424-85-1	5.00000	0.00061	SmartCare Product
		Ethanol	64-17-5	5.00000	0.00061	SmartCare Product
Scaletrol 720	Baker Hughes	Scale Inhibitor				
		Ethylene Glycol	107-21-1	30.00000	0.00469	SmartCare Product
		Calcium Chloride	10043-52-4	5.00000	0.00078	SmartCare Product
Ferrotrol 300L	Baker Hughes	Iron Control				
		Citric Acid	77-92-9	60.00000	0.00082	SmartCare Product
CI-14	Baker Hughes	Corrosion Inhibitor				
		Methanol	67-56-1	100.00000	0.00032	SmartCare Product
		Polyoxyalkylenes	Trade Secret	30.00000	0.00010	SmartCare Product
		Fatty Acids	Trade Secret	10.00000	0.00003	SmartCare Product
		Propargyl Alcohol	107-19-7	5.00000	0.00002	SmartCare Product
		Olefin	Trade Secret	5.00000	0.00002	SmartCare Product
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.						
		Other Chemicals				
		Water	7732-18-5		0.06775	
		Poly (acrylamide-co-acrylic acid)	Trade Secret		0.01955	
		Sorbitan Monooleate	Trade Secret		0.00326	
		Salt	Trade Secret		0.00326	
		Polyacrylate	Trade Secret		0.00312	
		Ethoxylated Alcohol	Trade Secret		0.00130	
		Hemicellulase Enzyme Concentrate	9025-56-3		0.00102	
		2-butoxy-1-propanol	15821-83-7		0.00012	
		Modified Thiorea Polymer	68527-49-1		0.00002	
		Potassium Chloride	7447-40-7		0.00001	
		Sodium Chloride	7647-14-5		0.00000	
		Hydrochloric Acid	7647-01-0		0.00000	
		Formaldehyde	50-00-0		0.00000	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

WV Department of Environmental Protection
 Office of Oil and Gas
 AUG 10 2015

1,233' to Bottom Hole

8,915' to Top Hole

Bottom Hole Latitude : 39 - 15 - 00
Top Hole Latitude : 39 - 12 - 30

Bottom Hole Longitude : 80 - 30 - 00
Top Hole Longitude : 80 - 27 - 30

2,378' to Top Hole
9,769' to Bottom Hole

Antero Resources
Well No. Tenmile Unit 1H
As-Drilled Plat
Antero Resources Corporation

(+) Denotes Location of Well on United States Topographic Maps

Legend

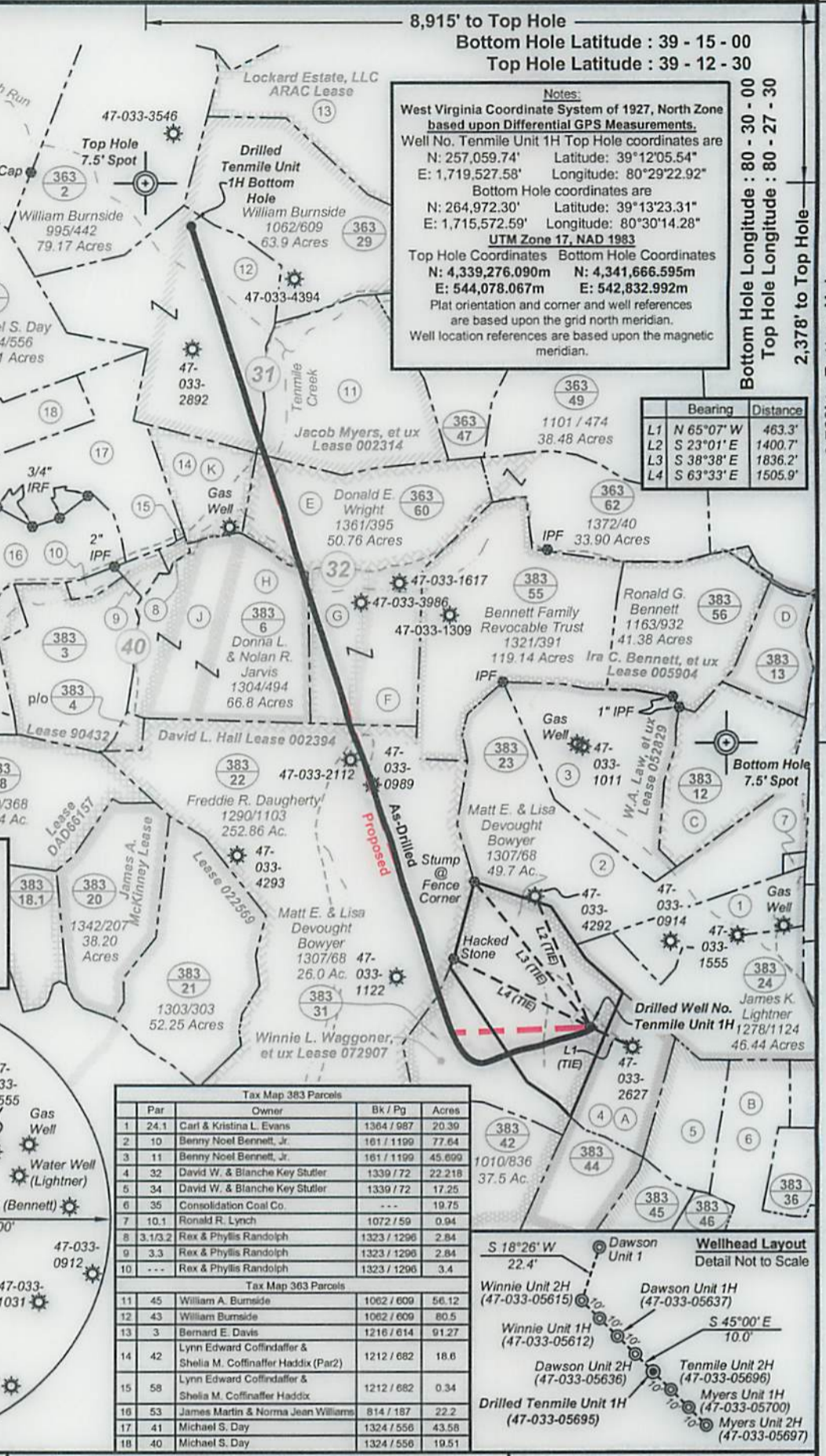
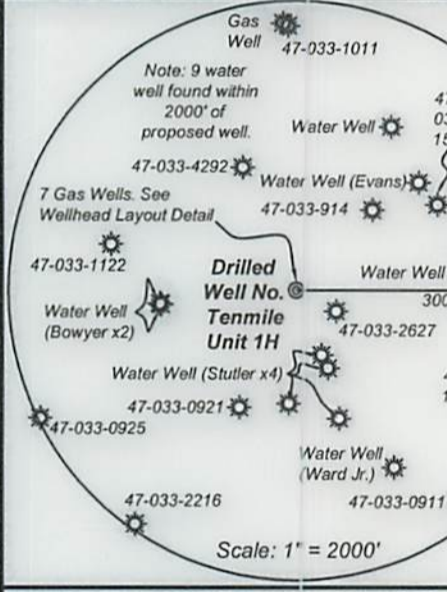
- Proposed gas well
- Found corner, as noted
- County Route
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)



Lease Chart

Lessor	Lease
A Opal Courtney, et al	072697
B Waldo B. & Mary E. Brown	---
C Simon S. Stutler	---
D Samuel G. & Ida Stutler	DVD1 642
E James I. Coffindaffer, et al	005778
F Ira C. Bennett, et ux	077102
G Robert L. Bennett, et al	---
H William J. Sigler, et al	---
J Maxine J. Badowski, et al	---
K Raymond E. Garrett	---

Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

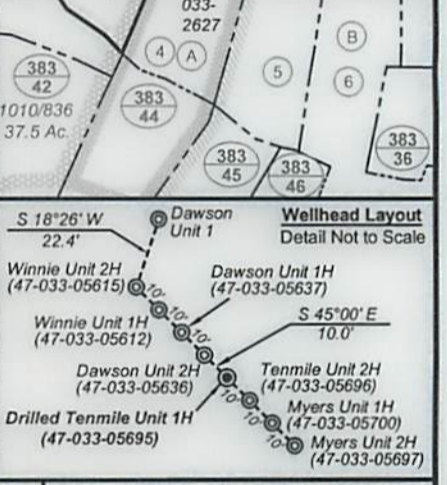


Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements. Well No. Tenmile Unit 1H Top Hole coordinates are N: 257,059.74' Latitude: 39°12'05.54" E: 1,719,527.58' Longitude: 80°29'22.92" Bottom Hole coordinates are N: 264,972.30' Latitude: 39°13'23.31" E: 1,715,572.59' Longitude: 80°30'14.28" UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,339,276.090m N: 4,341,666.595m
E: 544,078.067m E: 542,832.992m
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

	Bearing	Distance
L1	N 65°07' W	463.3'
L2	S 23°01' E	1400.7'
L3	S 38°38' E	1836.2'
L4	S 63°33' E	1505.9'

Par	Owner	Bk / Pg	Acres
1	Carl & Kristina L. Evans	1364 / 987	20.39
2	Benny Noel Bennett, Jr.	161 / 1199	77.64
3	Benny Noel Bennett, Jr.	161 / 1199	45.699
4	David W. & Blanche Key Stutler	1339 / 72	22.218
5	David W. & Blanche Key Stutler	1339 / 72	17.25
6	Consolidation Coal Co.	---	19.75
7	Ronald R. Lynch	1072 / 59	0.94
8	Rex & Phyllis Randolph	1323 / 1296	2.84
9	Rex & Phyllis Randolph	1323 / 1296	2.84
10	Rex & Phyllis Randolph	1323 / 1296	3.4

Par	Owner	Bk / Pg	Acres
11	William A. Burnside	1062 / 609	56.12
12	William Burnside	1062 / 609	80.5
13	Bernard E. Davis	1216 / 614	91.27
14	Lynn Edward Coffindaffer & Shelia M. Coffinaffer Haddix (Par2)	1212 / 682	18.6
15	Lynn Edward Coffindaffer & Shelia M. Coffinaffer Haddix	1212 / 682	0.34
16	James Martin & Norma Jean Williams	814 / 187	22.2
17	Michael S. Day	1324 / 556	43.58
18	Michael S. Day	1324 / 556	19.51



FILE NO: 164-36-U-12
DRAWING NO: 164-12 Tenmile 1H As-Drilled
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, BRIDGEPORT, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: July 27 2015
OPERATOR'S WELL NO. Tenmile Unit 1H
API WELL NO
47 - 033 - 05695
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
Original Grade 1288'
LOCATION: ELEVATION: Existing Grade 1278' WATERSHED: Middle West Fork River QUADRANGLE: West Milford
DISTRICT: Union COUNTY: Harrison
SURFACE OWNER: Matt E. & Lisa Devought Bowyer Winnie L. Waggoner, et ux; James I. Coffindaffer, et ux; 002314; ACREAGE: 49.7 177; 111.3;
ROYALTY OWNER: Robert L. Bennett, et al; William J. Sigler, et al; Ira C. Bennett, et ux David L. Hall; Jacob Myers, et ux; 072907; 002394; LEASE NO: 077902; 005778 ACREAGE: 255; 20.5; 18.75; 36.5; 54.12
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 7,270' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: 16,034' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313