

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

API 47-017-06269 County Doddridge District Grant
Quad Smithburg 7.5' Pad Name Revival Pad Field/Pool Name _____
Farm name Williams, Larry et al Well Number Mt. Salem Revival 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 4,352,810m Easting 526,710m
Landing Point of Curve Northing 4,353,601.21m Easting 526,400.27m
Bottom Hole Northing 4,354,587m Easting 526,072m

Elevation (ft) 1,376' 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 06/28/2013 Date drilling commenced 11/03/2013 Date drilling ceased 03/25/2014
Date completion activities began 04/18/2014 Date completion activities ceased 07/10/2014
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 427' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1,687' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

Reviewed by:

JL 8/20/15
10/23/2015

API 47-017 - 06269 Farm name Williams, Larry et al Well number Mt. Salem Revival Unit 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	New	94#; J-55	N/A	Yes
Surface	17 1/2"	13 3/8"	476'	New	48#; H-40	N/A	Yes*
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,594'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	13,231'	New	20#; P-110	N/A	Yes
Tubing		2 3/8"	7,312'	New	4.7#; N-80	N/A	
Packer type and depth set		N/A					

Comment Details *Surface cement (579 sacks) fell out at 70', grouted with 200 sacks of cement with successful returns to surface.

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	115 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	779 sx*	15.6	1.18	331	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1,011 sx	15.6	1.18	812	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,122 sx (Lead); 940 sx (Tail)	14.2 (Lead); 15.2 (Tail)	1.3 (Lead); 1.86 (Tail)	2,551	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13,231' MD, 7,284' TVD (BHL & Deepest Point Drilled) Loggers TD (ft) 13,231'
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6,563'

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 _____

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API 47- 017 - 06269 Farm name Williams, Larry et al Well number Mt. Salem Revival Unit 1H

PRODUCING FORMATION(S)	DEPTHS	
<u>Marcellus</u>	<u>7,184' (top)</u> TVD	<u>7,391' (top)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3,550 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 11,388 mcfpd Oil 6 bpd NGL _____ bpd Water 4 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	<u>0</u>		<u>0</u>		

*** PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company, LP
Address 2640 Reach Road City Williamsport State PA Zip 17701

Logging Company Cased Hole Solutions
Address 100 Arentzen Blvd. City Charleroi State PA Zip 15022

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

Stimulating Company Halliburton
Address 121 Champion Way, Suite 200 City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by Megan Darling Telephone 303-357-7230
Signature Megan C. Darling Title Permitting Agent Date 07/31/2015

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	18-Apr-14	12,976	13,143	60	Marcellus
2	21-May-14	12,778	12,945	60	Marcellus
3	22-May-14	12,580	12,747	60	Marcellus
4	22-May-14	12,382	12,549	60	Marcellus
5	22-May-14	12,184	12,351	60	Marcellus
6	8-Jun-14	11,986	12,153	60	Marcellus
7	9-Jun-14	11,788	11,955	60	Marcellus
8	9-Jun-14	11,590	11,757	60	Marcellus
9	9-Jun-14	11,392	11,559	60	Marcellus
10	9-Jun-14	11,194	11,361	60	Marcellus
11	10-Jun-14	10,996	11,163	60	Marcellus
12	10-Jun-14	10,797	10,965	60	Marcellus
13	10-Jun-14	10,599	10,766	60	Marcellus
14	10-Jun-14	10,401	10,568	60	Marcellus
15	10-Jun-14	10,203	10,370	60	Marcellus
16	11-Jun-14	10,005	10,172	60	Marcellus
17	11-Jun-14	9,807	9,974	60	Marcellus
18	11-Jun-14	9,609	9,776	60	Marcellus
19	12-Jun-14	9,411	9,578	60	Marcellus
20	12-Jun-14	9,213	9,380	60	Marcellus
21	12-Jun-14	9,015	9,182	60	Marcellus
22	12-Jun-14	8,817	8,984	60	Marcellus
23	13-Jun-14	8,619	8,786	60	Marcellus
24	13-Jun-14	8,421	8,588	60	Marcellus
25	14-Jun-14	8,223	8,390	60	Marcellus
26	13-Jun-14	8,025	8,192	60	Marcellus
27	13-Jun-14	7,827	7,994	60	Marcellus
28	14-Jun-14	7,629	7,796	60	Marcellus
29	14-Jun-14	7,430	7,598	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	21-May-14	70.8	8,307	n/a	5,237	201,493	6,956	N/A
2	21-May-14	78.4	8,114	5,641	4,297	260,580	6,532	N/A
3	22-May-14	68.4	8,105	5,948	4,250	252,865	6,545	N/A
4	22-May-14	69.9	8,007	5,181	5,124	222,691	6,818	N/A
5	22-May-14	69.1	8,161	5,550	5,324	229,249	7,017	N/A
6	8-Jun-14	68.2	7,670	5,457	4,747	258,370	6,682	N/A
7	9-Jun-14	77.2	6,646	5,417	5,198	209,600	5,756	N/A
8	9-Jun-14	72.9	7,292	5,335	5,007	133,207	6,216	N/A
9	9-Jun-14	64.9	8,262	5,246	4,686	108,911	5,911	N/A
10	9-Jun-14	67.2	7,661	5,372	5,085	159,250	6,929	N/A
11	10-Jun-14	68.7	7,205	5,455	5,073	259,100	6,422	N/A
12	10-Jun-14	68.8	7,402	5,265	4,980	225,937	6,850	N/A
13	10-Jun-14	70.5	7,150	5,293	5,032	256,923	6,656	N/A
14	10-Jun-14	78.0	6,955	5,230	5,087	256,688	6,250	N/A
15	10-Jun-14	75.8	7,132	5,282	5,130	256,573	6,161	N/A
16	11-Jun-14	78.8	7,017	5,388	4,873	259,880	6,282	N/A
17	11-Jun-14	70.0	7,337	5,271	5,442	191,169	6,939	N/A
18	11-Jun-14	70.6	7,339	5,285	4,353	254,951	6,165	N/A
19	12-Jun-14	56.7	7,410	5,228	5,421	190,639	6,821	N/A
20	12-Jun-14	68.8	7,480	5,307	5,354	159,290	6,545	N/A
21	12-Jun-14	78.1	7,182	5,300	4,701	236,530	6,032	N/A
22	12-Jun-14	77.7	7,024	5,305	4,098	255,464	6,261	N/A
23	13-Jun-14	71.1	7,237	5,364	4,261	217,873	6,774	N/A
24	13-Jun-14	73.6	7,150	5,460	4,341	205,111	6,648	N/A
25	14-Jun-14	81.5	6,205	5,476	4,899	255,530	6,086	N/A
26	13-Jun-14	79.0	6,263	5,432	5,155	201,480	6,611	N/A
27	13-Jun-14	80.3	6,346	5,340	4,416	252,888	6,073	N/A
28	14-Jun-14	77.8	6,789	5,404	5,082	234,809	6,000	N/A
29	14-Jun-14	77.2	6,338	5,249	5,329	237,050	6,634	N/A
	AVG=	72.8	7,282	5,374	4,896	6,444,101	187,572	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Fresh Water	427'	N/A	427'	N/A
Shale	0	337	0	337
Siltstone/ Sandstone	est. 337	597	est. 337	597
Shale	est. 597	707	est. 597	707
Sandstone	est. 707	837	est. 707	837
Siltstone/ Shale	est. 837	917	est. 837	917
Shale	est. 917	1,727	est. 917	1,727
Sandstone	est. 1727	1,787	est. 1727	1,787
Shale	est. 1787	1,907	est. 1787	1,907
Sandstone/ Trace Coal	est. 1907	1,987	est. 1907	1,987
Sandstone	est. 1987	2,127	est. 1987	2,127
Sandstone/ Trace Coal	est. 2127	2,147	est. 2127	2,147
Shale/ Sandstone	est. 2147	2,188	est. 2147	2,188
Big Lime	2,188	2,307	2,188	2,307
Big Injun	2,307	2,747	2,307	2,747
Gantz Sand	2,747	2,879	2,747	2,879
Fifty Foot Sandstone	2,879	2,949	2,879	2,949
Gordon	2,949	3,290	2,949	3,290
Fifth Sandstone	3,290	3,317	3,290	3,317
Bayard	3,317	3,684	3,317	3,685
Warren	3,684	4,026	3,685	4,027
Speechley	4,026	4,292	4,027	4,294
Baltown	4,292	4,816	4,294	4,818
Bradford	4,816	5,310	4,818	5,312
Benson	5,310	5,580	5,312	5,582
Alexander	5,580	5,772	5,582	5,773
Elk	5,772	6,334	5,773	6,336
Rhinestreet	6,334	6,698	6,336	6,707
Sycamore	6,698	6,925	6,707	6,957
Middlesex	6,925	7,074	6,957	7,152
Burkett	7,074	7,104	7,152	7,201
Tully	7,104	7,184	7,201	7,391
Marcellus	7,184	NA	7,391	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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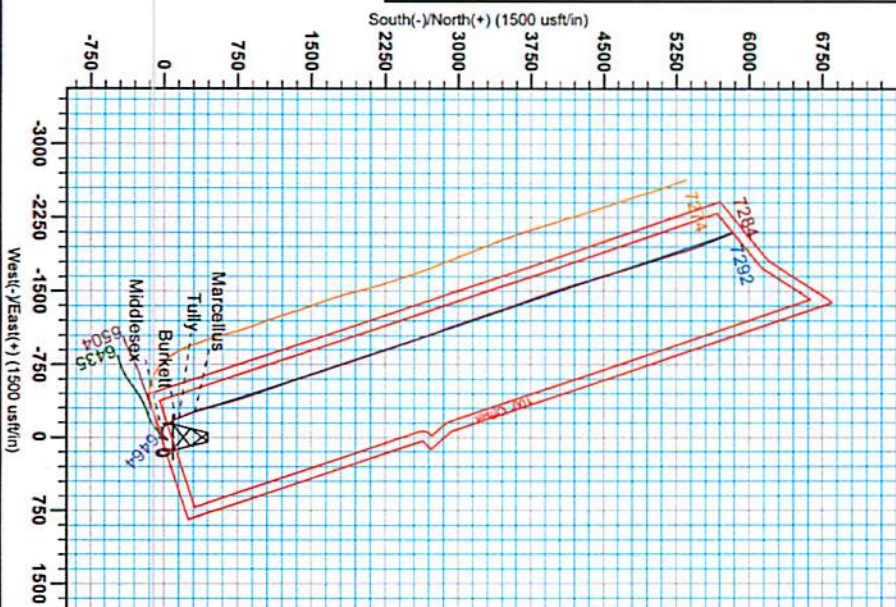
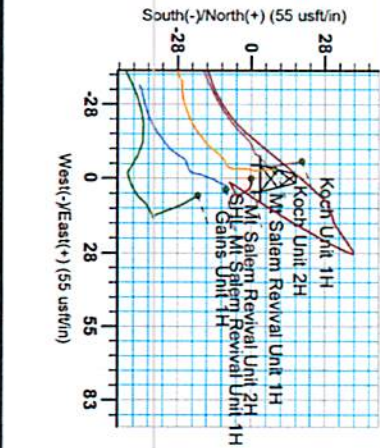
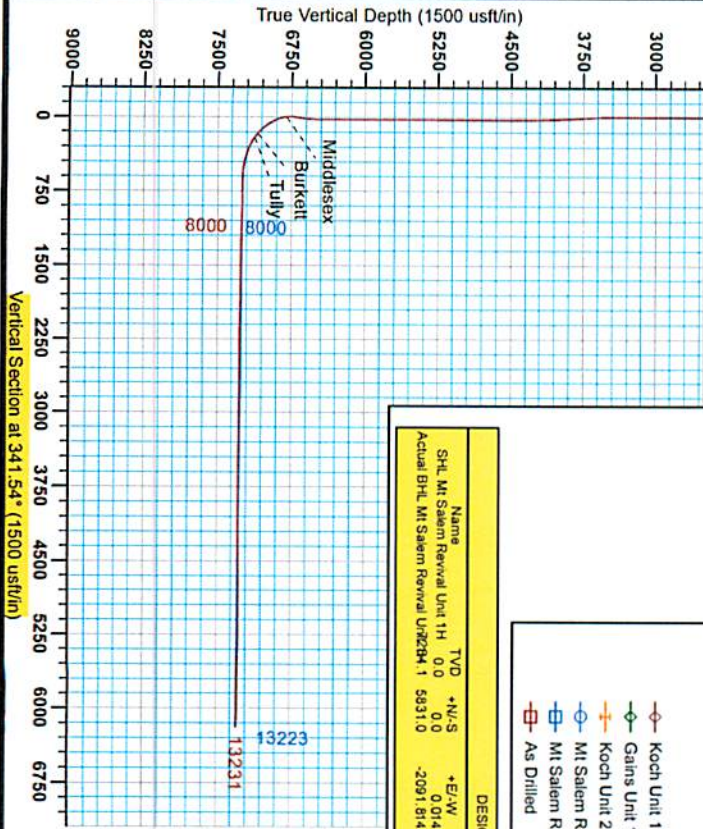
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Antero Resources
 Mt Salem Revival Unit 1H
 Doddridge County WV
 Northing: 14280128.17
 Easting: 1727999.38
 As Drilled



WELL DETAILS: Mt Salem Revival Unit 1H

N-U-S	+E/W	Northing	Easting	Longitude	SLID
0.0	0.0	14280128.17	1727999.38	19° 27' 13.00" W	41° 28' 00.00" W

Ground Level: 1377.0

PROJECT DETAILS: Doddridge County WV

Geologic System: Universal Transverse Mercator (US Survey Feet)
 Ellipsoid: Clarke 1866
 Zone: Zone 17N (84 W to 78 W)
 System Datum: Mean Sea Level

Genie Lightfoot
 Scientific Drilling
 421 South Eagle Lane
 Oklahoma City Oklahoma
 405-787-3663

LEGEND

- Koch Unit 1H, Original Wellpath, As Drilled V0
- Gains Unit 1H, Original Wellpath, As Drilled V0
- Koch Unit 2H, Original Wellpath, As Drilled V0
- Mt Salem Revival Unit 2H, Original Wellpath, As Drilled V0
- Mt Salem Revival Unit 1H, Original Wellpath, Plan 5 V0
- As Drilled

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Mt Salem Revival Unit 1H	0.0	0.0	0.0	0.01428012817	1727999.3869	19° 27' 13.00" N	41° 28' 00.00" W
Actual BHL Mt Salem Revival Unit 2H 1	5931.0	-2091.81	-4289599.17	1728907.5889	20° 24' 59.40" N	41° 51' 46.50" W	

REFERENCE INFORMATION

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Azimuth to Grid North
 True North: -0.20°
 Magnetic North: -8.72°
 Strength: 52374.28 nT
 Declination: -11.42°
 Date: 11/4/2013
 Model: IGR2010

10/23/2015

17-06269

17-06269



Antero Resources

Doddridge County WV
Koch/Gains/McCue/Mt Salem Revival
Mt Salem Revival Unit 1H
Original Wellpath

Design: As Drilled

EOW Completion Report

26 March, 2014

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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Mt Salem Revival Unit 1H
Project:	Doddridge County WV	TVD Reference:	Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Site:	Koch/Gains/McCue/Mt Salem Revival	MD Reference:	Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Well:	Mt Salem Revival Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Project	Doddridge County WV, McClellan District		
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	Koch/Gains/McCue/Mt Salem Revival				
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:	2.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.20 °

Well	Mt Salem Revival Unit 1H, Marcellus					
Well Position	+N/-S	0.0 usft	Northing:	14,280,128.17 usft	Latitude:	39° 19' 27.130 N
	+E/-W	0.0 usft	Easting:	1,727,999.38 usft	Longitude:	80° 41' 25.084 W
Position Uncertainty	2.0 usft	Wellhead Elevation:	1,388.0 usft	Ground Level:	1,377.0 usft	

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	GRF2010	11/4/2013	-8.52	66.89	52,374

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	341.54	

Survey Program	Date 3/26/2014				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
108.0	6,367.6	Survey #4 Final (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,429.0	13,231.0	Survey #5 SDI 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	0.00	0.0	0.0	0.0	0.0	0.00
108.0	0.29	75.54	108.0	0.1	0.3	0.0	0.0	0.27
208.0	0.30	70.03	208.0	0.2	0.8	0.0	0.0	0.03
308.0	0.29	93.06	308.0	0.3	1.3	-0.1	-0.1	0.12
408.0	0.28	100.55	408.0	0.2	1.7	-0.3	-0.3	0.04
508.0	0.28	102.85	508.0	0.1	2.2	-0.6	-0.6	0.01
608.0	0.19	121.98	608.0	0.0	2.6	-0.8	-0.8	0.12
708.0	0.11	126.12	708.0	-0.1	2.8	-1.0	-1.0	0.08
808.0	0.24	102.46	808.0	-0.2	3.1	-1.2	-1.2	0.15
908.0	0.26	117.93	908.0	-0.4	3.5	-1.5	-1.5	0.07
1,008.0	0.34	136.61	1,008.0	-0.7	3.9	-1.9	-1.9	0.13

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Site:	Koch/Gains/McCue/Mt Salem Revival	MD Reference:	Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Well:	Mt Salem Revival 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)
1,108.0	0.30	136.53	1,108.0	-1.1	4.3	-2.4	0.04
1,208.0	0.25	167.54	1,208.0	-1.5	4.5	-2.9	0.15
1,308.0	0.18	153.94	1,308.0	-1.9	4.6	-3.3	0.09
1,408.0	0.18	131.47	1,408.0	-2.1	4.8	-3.5	0.07
1,508.0	0.18	131.32	1,508.0	-2.3	5.1	-3.8	0.00
1,608.0	0.31	142.69	1,608.0	-2.7	5.3	-4.2	0.14
1,708.0	0.22	167.06	1,708.0	-3.1	5.6	-4.7	0.14
1,808.0	0.20	156.53	1,808.0	-3.4	5.7	-5.0	0.04
1,908.0	0.21	162.35	1,908.0	-3.7	5.8	-5.4	0.02
2,008.0	0.22	176.58	2,008.0	-4.1	5.9	-5.8	0.05
2,108.0	0.16	145.35	2,108.0	-4.4	5.9	-6.1	0.12
2,208.0	0.26	115.13	2,208.0	-4.6	6.2	-6.4	0.15
2,308.0	0.10	186.07	2,308.0	-4.8	6.4	-6.6	0.25
2,408.0	0.05	235.39	2,408.0	-4.9	6.4	-6.7	0.08
2,508.0	0.16	211.69	2,508.0	-5.1	6.3	-6.8	0.12
2,608.0	0.30	228.65	2,608.0	-5.4	6.0	-7.0	0.15
2,708.0	0.39	239.94	2,708.0	-5.7	5.5	-7.2	0.11
2,808.0	0.32	247.71	2,808.0	-6.0	5.0	-7.2	0.08
2,908.0	0.47	236.81	2,908.0	-6.3	4.4	-7.4	0.17
3,008.0	0.47	243.51	3,008.0	-6.7	3.6	-7.5	0.05
3,108.0	0.40	239.14	3,108.0	-7.1	3.0	-7.7	0.08
3,208.0	0.34	242.20	3,208.0	-7.4	2.4	-7.8	0.06
3,308.0	0.37	237.52	3,308.0	-7.7	1.9	-7.9	0.04
3,408.0	0.31	247.43	3,408.0	-8.0	1.4	-8.0	0.08
3,508.0	3.14	34.14	3,507.9	-5.8	2.7	-6.4	3.40
3,608.0	5.34	33.69	3,607.6	0.3	6.8	-1.8	2.20
3,708.0	5.01	31.50	3,707.2	7.9	11.6	3.8	0.38
3,808.0	4.55	29.82	3,806.9	15.1	15.9	9.3	0.48
3,908.0	4.35	29.28	3,906.6	21.8	19.7	14.5	0.20
4,008.0	3.27	28.61	4,006.4	27.6	22.9	19.0	1.08
4,108.0	2.35	26.11	4,106.2	32.0	25.2	22.4	0.93
4,208.0	1.79	24.05	4,206.2	35.3	26.7	25.0	0.56
4,308.0	0.82	21.84	4,306.1	37.3	27.6	26.7	0.97
4,408.0	0.26	349.21	4,406.1	38.2	27.9	27.4	0.62
4,508.0	0.28	262.22	4,506.1	38.4	27.6	27.7	0.37
4,608.0	0.24	247.53	4,606.1	38.3	27.1	27.7	0.08
4,708.0	0.48	242.36	4,706.1	38.0	26.6	27.7	0.24
4,808.0	0.66	236.41	4,806.1	37.5	25.7	27.7	0.19
4,908.0	0.85	230.46	4,906.1	36.7	24.7	27.9	0.21
5,008.0	0.90	241.47	5,006.1	35.9	23.4	26.6	0.18
5,108.0	0.95	231.00	5,106.1	35.0	22.1	26.2	0.18
5,208.0	0.92	239.13	5,206.1	34.1	20.8	25.7	0.14
5,308.0	0.90	234.10	5,306.1	33.2	19.4	25.3	0.08
5,408.0	0.75	232.06	5,406.1	32.3	18.3	24.9	0.15

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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Mt Salem Revival Unit 1H
Project:	Doddridge County WV	TVD Reference:	Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Site:	Koch/Gains/McCue/Mt Salem Revival	MD Reference:	Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Well:	Mt Salem Revival 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)	
5,508.0	0.66	239.11	239.11	5,506.1	31.6	17.3	24.5	24.5	0.12
5,608.0	0.66	247.34	247.34	5,606.0	31.1	16.2	24.4	24.4	0.09
5,708.0	0.77	256.35	256.35	5,706.0	30.7	15.1	24.4	24.4	0.16
5,808.0	0.76	253.81	253.81	5,806.0	30.4	13.8	24.5	24.5	0.04
5,908.0	0.83	248.43	248.43	5,906.0	29.9	12.5	24.4	24.4	0.10
6,008.0	0.42	247.63	247.63	6,006.0	29.5	11.4	24.4	24.4	0.41
6,108.0	0.40	274.48	274.48	6,106.0	29.4	10.8	24.5	24.5	0.19
6,208.0	0.64	250.68	250.68	6,206.0	29.3	9.9	24.6	24.6	0.32
6,308.0	0.30	202.02	202.02	6,306.0	28.8	9.3	24.4	24.4	0.50
6,367.6	0.38	265.00	265.00	6,365.6	28.7	9.0	24.3	24.3	0.61
6,429.0	0.44	216.95	216.95	6,427.0	28.5	8.7	24.3	24.3	0.55
6,473.0	0.27	209.70	209.70	6,471.0	28.2	8.5	24.1	24.1	0.40
6,518.0	2.41	221.34	221.34	6,516.0	27.4	7.8	23.5	23.5	4.77
6,563.0	7.91	222.47	222.47	6,560.8	24.4	5.1	21.6	21.6	12.22
6,608.0	13.55	221.73	221.73	6,605.0	18.2	-0.5	17.4	17.4	12.54
6,653.0	17.87	217.01	217.01	6,648.3	8.8	-8.2	10.9	10.9	10.00
6,698.0	19.27	222.39	222.39	6,690.9	-2.2	-17.3	3.4	3.4	4.91
6,743.0	20.36	240.64	240.64	6,733.3	-11.6	-29.2	-1.7	-1.7	13.90
6,787.0	22.34	258.57	258.57	6,774.3	-17.0	-44.1	-2.2	-2.2	15.44
6,815.0	23.46	268.48	268.48	6,800.2	-18.2	-54.8	0.1	0.1	14.32
Middlesex									
6,832.0	24.42	273.99	273.99	6,815.7	-18.0	-61.7	2.4	2.4	14.32
6,877.0	26.79	289.05	289.05	6,856.3	-14.1	-80.6	12.2	12.2	15.35
6,922.0	28.40	301.61	301.61	6,896.2	-5.2	-99.3	26.6	26.6	13.39
6,967.0	30.30	315.02	315.02	6,935.5	8.5	-116.5	45.0	45.0	15.17
7,012.0	32.67	324.95	324.95	6,973.9	26.5	-131.5	66.8	66.8	12.65
7,057.0	37.46	329.34	329.34	7,010.7	48.2	-145.5	91.8	91.8	12.02
7,102.0	42.70	330.89	330.89	7,045.1	73.3	-159.9	120.2	120.2	11.85
7,146.0	47.31	332.81	332.81	7,076.2	100.8	-174.5	150.9	150.9	10.92
7,171.0	49.74	334.21	334.21	7,092.8	117.5	-182.9	169.4	169.4	10.60
Burkett									
7,191.0	51.70	335.26	335.26	7,105.5	131.5	-189.5	184.8	184.8	10.60
7,220.0	54.68	336.81	336.81	7,122.8	152.8	-198.9	207.9	207.9	11.13
Tully									
7,236.0	56.33	337.62	337.62	7,131.9	164.9	-204.0	221.0	221.0	11.13
7,281.0	62.12	337.78	337.78	7,154.9	200.7	-218.7	259.6	259.6	12.87
7,326.0	67.03	338.88	338.88	7,174.2	238.4	-233.7	300.2	300.2	11.13
7,371.0	69.80	340.24	340.24	7,190.8	277.6	-248.3	342.0	342.0	6.77
7,410.0	72.61	341.47	341.47	7,203.3	312.5	-260.4	384.6	384.6	7.79
Marcellus									
7,416.0	73.04	341.65	341.65	7,205.1	318.0	-262.2	384.6	384.6	7.79
7,461.0	75.73	343.05	343.05	7,217.2	359.2	-275.3	427.9	427.9	6.69
7,505.0	78.61	343.98	343.98	7,227.0	400.4	-287.5	470.8	470.8	6.86
7,550.0	82.76	344.26	344.26	7,234.3	443.1	-299.7	515.2	515.2	9.24
7,594.0	85.65	344.32	344.32	7,238.7	485.2	-311.5	558.9	558.9	6.57

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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Mt Salem Revival Unit 1H
Project:	Doddridge County WV	TVD Reference:	Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Site:	Koch/Gains/McCue/Mt Salem Revival	MD Reference:	Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Well:	Mt Salem Revival 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)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	
7,626.0	87.76	343.97	343.97	7,240.6	515.9	-320.2	590.8	6.68	
7,657.0	89.43	343.88	343.88	7,241.3	545.7	-328.8	621.8	5.39	
7,752.0	89.43	343.79	343.79	7,242.3	637.0	-355.3	716.7	0.09	
7,845.0	89.25	343.53	343.53	7,243.3	726.2	-381.4	809.6	0.34	
7,935.0	88.46	342.30	342.30	7,245.1	812.2	-407.9	899.6	1.62	
8,025.0	88.20	341.42	341.42	7,247.8	897.7	-435.9	989.5	1.02	
8,115.0	89.34	340.28	340.28	7,249.7	982.7	-465.4	1,079.5	1.79	
8,204.0	88.46	341.07	341.07	7,251.4	1,066.7	-494.8	1,168.5	1.33	
8,294.0	88.55	340.45	340.45	7,253.7	1,151.6	-524.5	1,258.4	0.70	
8,384.0	88.81	340.01	340.01	7,255.8	1,236.3	-554.9	1,348.4	0.57	
8,473.0	89.34	340.37	340.37	7,257.3	1,320.0	-585.1	1,437.3	0.72	
8,563.0	89.25	340.63	340.63	7,258.4	1,404.8	-615.1	1,527.3	0.31	
8,653.0	89.96	341.42	341.42	7,259.0	1,489.9	-644.4	1,617.3	1.18	
8,743.0	89.25	342.12	342.12	7,259.6	1,575.4	-672.5	1,707.3	1.11	
8,833.0	89.96	341.60	341.60	7,260.2	1,660.9	-700.6	1,797.3	0.98	
8,922.0	88.81	341.16	341.16	7,261.2	1,745.3	-729.0	1,886.3	1.38	
9,012.0	88.99	341.68	341.68	7,262.9	1,830.6	-757.6	1,976.3	0.61	
9,102.0	89.08	342.12	342.12	7,264.4	1,916.1	-785.6	2,066.3	0.50	
9,192.0	89.25	341.16	341.16	7,265.7	2,001.5	-813.9	2,156.3	1.08	
9,282.0	89.87	340.72	340.72	7,266.4	2,086.6	-843.3	2,246.3	0.84	
9,371.0	89.34	341.16	341.16	7,267.0	2,170.7	-872.4	2,335.2	0.77	
9,461.0	89.60	341.16	341.16	7,267.9	2,255.9	-901.5	2,425.2	0.29	
9,551.0	88.90	340.98	340.98	7,269.1	2,341.0	-930.7	2,515.2	0.80	
9,640.0	88.90	342.12	342.12	7,270.8	2,425.4	-958.8	2,604.2	1.28	
9,730.0	89.25	341.42	341.42	7,272.2	2,510.9	-987.0	2,694.2	0.87	
9,820.0	90.04	341.86	341.86	7,272.8	2,596.3	-1,015.3	2,784.2	1.00	
9,909.0	90.22	341.07	341.07	7,272.6	2,680.7	-1,043.6	2,873.2	0.91	
9,999.0	89.87	338.70	338.70	7,272.5	2,765.2	-1,074.6	2,963.1	2.66	
10,089.0	89.25	338.34	338.34	7,273.2	2,848.9	-1,107.5	3,053.0	0.80	
10,178.0	90.22	341.77	341.77	7,273.6	2,932.6	-1,137.9	3,142.0	4.00	
10,268.0	90.22	343.27	343.27	7,273.3	3,018.4	-1,164.9	3,232.0	1.67	
10,358.0	89.69	339.14	339.14	7,273.3	3,103.6	-1,193.9	3,321.9	4.63	
10,448.0	89.96	341.42	341.42	7,273.6	3,188.3	-1,224.3	3,411.9	2.55	
10,537.0	89.78	342.39	342.39	7,273.8	3,272.9	-1,251.9	3,500.9	1.11	
10,627.0	89.78	342.83	342.83	7,274.1	3,358.8	-1,278.8	3,590.9	0.49	
10,717.0	90.04	343.27	343.27	7,274.3	3,444.9	-1,305.0	3,680.9	0.57	
10,807.0	90.04	341.33	341.33	7,274.2	3,530.6	-1,332.4	3,770.8	2.16	
10,896.0	89.08	336.94	336.94	7,274.9	3,613.8	-1,364.1	3,859.7	5.05	
10,986.0	89.96	340.01	340.01	7,275.7	3,697.5	-1,397.1	3,949.6	3.55	
11,076.0	90.13	342.04	342.04	7,275.6	3,782.6	-1,426.4	4,039.6	2.26	
11,165.0	90.48	342.39	342.39	7,275.1	3,867.3	-1,453.5	4,129.6	0.56	
11,255.0	89.60	339.49	339.49	7,275.1	3,952.4	-1,482.9	4,218.6	3.37	
11,345.0	90.57	341.42	341.42	7,274.9	4,037.2	-1,513.0	4,308.6	2.40	
11,434.0	91.10	342.74	342.74	7,273.6	4,121.9	-1,540.4	4,397.5	1.60	

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EOW Completion Report



Company: Antero Resources	Local Co-ordinate Reference: Well Mt Salem Revival Unit 1H
Project: Doddridge County WV	TVD Reference: Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Site: Koch/Gains/McCue/Mt Salem Revival	MD Reference: Mt Salem 1H 1377 GL + 19 KB @ 1396.0usft
Well: Mt Salem Revival 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)
11,524.0	90.66	343.09	343.09	7,272.2	4,207.9	-1,566.9	4,487.5	0.62
11,614.0	90.40	343.09	343.09	7,271.4	4,294.0	-1,593.0	4,577.5	0.29
11,704.0	90.31	342.04	342.04	7,270.9	4,379.8	-1,620.0	4,667.4	1.17
11,793.0	91.01	342.74	342.74	7,269.8	4,464.7	-1,646.9	4,756.4	1.11
11,883.0	90.13	343.88	343.88	7,268.9	4,550.9	-1,672.8	4,846.4	1.60
11,973.0	89.78	343.88	343.88	7,269.0	4,637.3	-1,697.8	4,936.3	0.39
12,062.0	89.25	344.50	344.50	7,269.8	4,723.0	-1,722.0	5,025.2	0.92
12,152.0	90.40	343.53	343.53	7,270.0	4,809.5	-1,746.8	5,115.1	1.67
12,242.0	90.48	341.68	341.68	7,269.3	4,895.4	-1,773.7	5,205.1	2.06
12,331.0	88.55	343.09	343.09	7,270.1	4,980.2	-1,800.6	5,294.1	2.69
12,421.0	88.90	342.74	342.74	7,272.1	5,066.2	-1,827.1	5,384.0	0.55
12,511.0	89.43	342.30	342.30	7,273.4	5,152.0	-1,854.1	5,474.0	0.77
12,601.0	88.72	343.71	343.71	7,274.9	5,238.1	-1,880.4	5,564.0	1.75
12,691.0	88.99	344.58	344.58	7,276.7	5,324.6	-1,905.0	5,653.8	1.01
12,780.0	89.34	340.98	340.98	7,278.0	5,409.6	-1,931.3	5,742.8	4.06
12,870.0	89.78	338.61	338.61	7,278.6	5,494.1	-1,962.4	5,832.7	2.68
12,960.0	90.04	339.05	339.05	7,278.8	5,578.0	-1,994.9	5,922.6	0.57
13,050.0	88.64	339.22	339.22	7,279.8	5,662.1	-2,026.9	6,012.6	1.57
13,139.0	88.64	339.05	339.05	7,281.9	5,745.2	-2,058.6	6,101.5	0.19
13,174.0	88.62	338.79	338.79	7,282.8	5,777.9	-2,071.2	6,136.4	0.74
13,231.0	88.62	338.79	338.79	7,284.1	5,831.0	-2,091.8	6,193.3	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,815.0	6,800.2	-18.2	-54.8	Middlesex
7,171.0	7,092.8	117.5	-182.9	Burkett
7,220.0	7,122.8	152.8	-198.9	Tully
7,410.0	7,203.3	312.5	-260.4	Marcellus

Checked By: _____ Approved By: _____ Date: _____

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/21/2014
Job End Date:	6/14/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06269-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Mt. Salem Revival Unit 1H
Longitude:	-80.69012200
Latitude:	39.32428900
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,284
Total Base Water Volume (gall):	8,134,186
Total Base Non Water Volume:	0

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
Fresh Water	Operator	Base Fluid	Fresh Water	7732-18-5	100.00000	90.97011	Density = 8.330
40/70 - COMMON BROWN	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00000	5.27807	
20/40 - COMMON WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00000	2.70430	
100 MESH - COMMON WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00000	0.65894	
HCl > 10%	Halliburton	Solvent	Hydrochloric Acid	7647-01-0	30.00000	0.19504	
PermVis VFR-10	Halliburton	Friction Reducer	Hydrotreated light petroleum distillate	54742-47-8	30.00000	0.04437	
			Ammonium chloride	12125-02-9	10.00000	0.01479	
			Alcohols, C12-16, ethoxylated	88551-12-2	10.00000	0.01479	
			9-Octadecanamide, n,n-bis-2(hydroxy-ethyl)-(Z)	93-83-4	5.00000	0.00739	
M/G-36 GELLING AGENT	Halliburton	Gelling Agent					

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OptiKleen-WF(TM)	Halliburton	Concentrate	Guar gum	9000-30-0	100.00000	0.01146	
LP-65 - MC	Halliburton	Scale Inhibitor	Sodium perborate tetrahydrate	10486-00-7	100.00000	0.00261	
BE-9	Halliburton	Biocide	Ammonium chloride	12125-02-9	10.00000	0.00190	
SP BREAKER	Halliburton	Breaker	Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00121	
HAIOS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Sodium persulfate	7775-27-1	100.00000	0.00034	
			Methanol	67-56-1	60.00000	0.00005	
			Propargyl alcohol	107-19-7	10.00000	0.00001	
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 Ingredient(s)	Polyacrylate	Confidential		0.09613	
		Other Ingredient(s)	Water	7732-18-5		0.04437	
		Other Ingredient(s)	Water	7732-18-5		0.02354	
		Other Ingredient(s)	Organic phosphonate	Confidential		0.01140	
		Other Ingredient(s)	Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121886-68-4		0.00057	
		Other Ingredient(s)	Formaldehyde	50-00-0		0.00019	
		Other Ingredient(s)	Surfactant mixture	Confidential		0.00011	
		Other Ingredient(s)	Silica gel	112926-00-8		0.00011	
		Other Ingredient(s)	Surfactant mixture	Confidential		0.00011	
		Other Ingredient(s)	Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	88527-49-1		0.00003	
		Other Ingredient(s)	Alcohols, C14-C15, ethoxylated	88951-67-7		0.00003	
		Other Ingredient(s)	Fatty acids, tall oil	Confidential		0.00003	

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AUG 03 2015
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10/23/2015

Denise Tuck,
Halliburton
3000 N. Sam Houston Pkwy
E.
Houston, TX 77032
281-871-6226

17.06269

	Other Ingredient(s)	Crystalline Silica, Quartz	14808-60-7		0.00001	
	Other Ingredient(s)	Olefins	Confidential		0.00000	
	Other Ingredient(s)	Olefins	Confidential		0.00000	
	Other Ingredient(s)	Olefins	Confidential		0.00000	
	Other Ingredient(s)	Olefins	Confidential		0.00000	
	Other Ingredient(s)	Olefins	Confidential		0.00000	
	Other Ingredient(s)	Sodium sulfate	7757-82-6		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)

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LATITUDE 39°20'00"

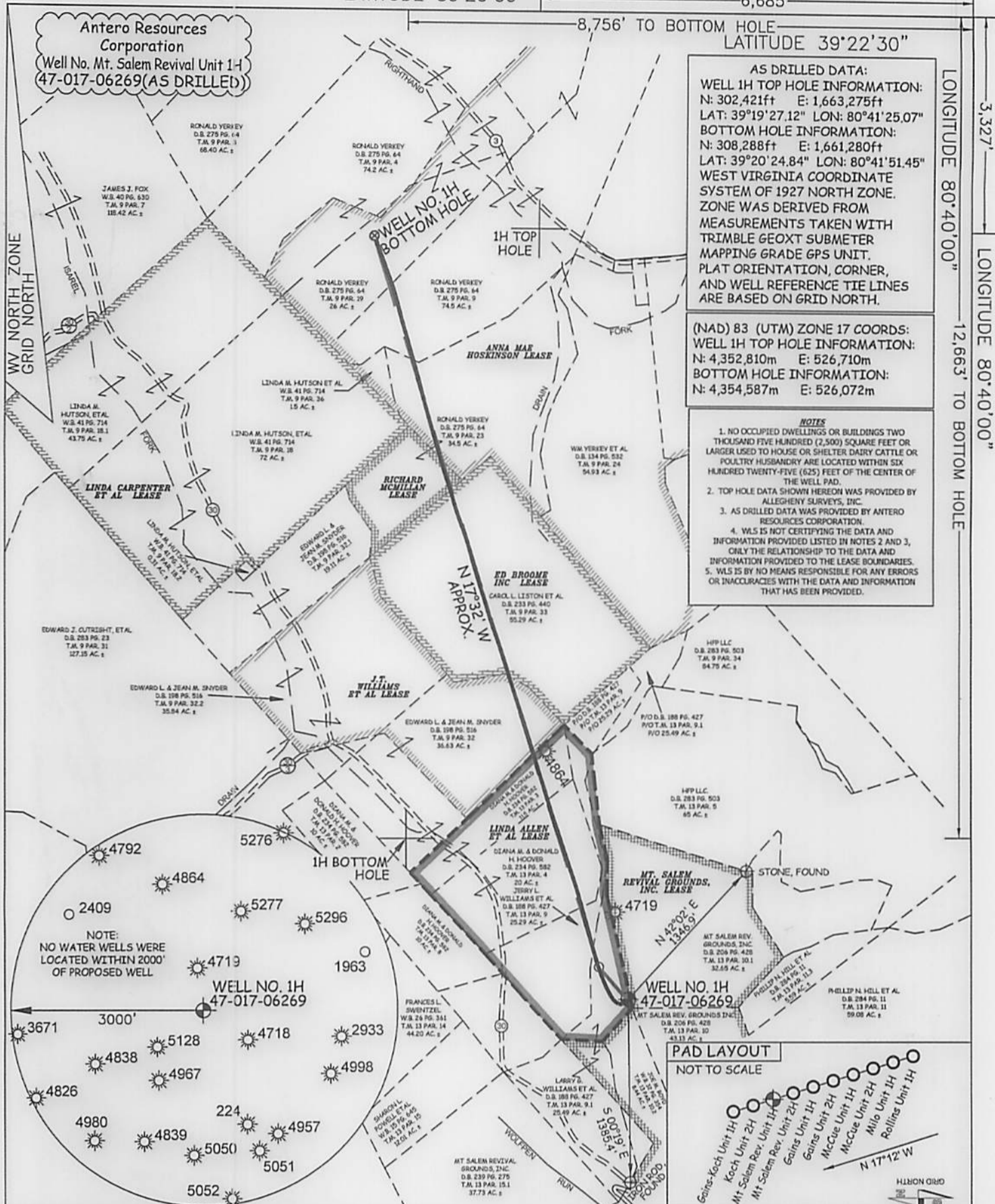
6,685'

Antero Resources Corporation
Well No. Mt. Salem Revival Unit 1-1
47-017-06269 (AS DRILLED)

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 302,421ft E: 1,663,275ft
LAT: 39°19'27.12" LON: 80°41'25.07"
BOTTOM HOLE INFORMATION:
N: 308,288ft E: 1,661,280ft
LAT: 39°20'24.84" LON: 80°41'51.45"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,352,810m E: 526,710m
BOTTOM HOLE INFORMATION:
N: 4,354,587m E: 526,072m

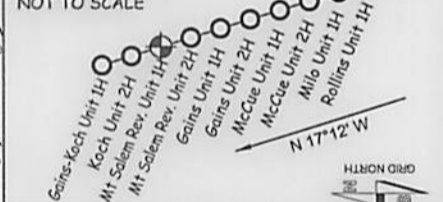
- NOTES
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



NOTE:
NO WATER WELLS WERE LOCATED WITHIN 2000' OF PROPOSED WELL



PAD LAYOUT



JOB # 12-134WA
DRAWING # MTSALENREVIVAL1HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GFS



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

LEGEND
— Surface Owner Boundary Lines +/-
- - Interior Surface Tracts +/-
- - Existing Fence
⊕ Found monument, as noted
⊙ Proposed Well Path
⊙ As Drilled Well Path

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1,402' ORIGINAL - 1,376' AS-DRILLED WATERSHED HEADWATERS OF MIDDLE ISLAND CREEK

QUADRANGLE SMITHBURG 7.5' DISTRICT GRANT COUNTY DODDRIDGE

SURFACE OWNER LARRY WILLIAMS ET AL ACREAGE 25.49 ACRES +/-
OIL & GAS ROYALTY OWNER LINDA ALLEN ET AL; J.T. WILLIAMS ET AL; ED BROOME INC.; RICHARD MCMILLAN; ANNA MAE HOSKINSON LEASE ACREAGE 35.11 ACRES +/-; 59 ACRES +/-; 55.29 ACRES +/-; 10.87 ACRES +/-; 214 ACRES +/-

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL
(SPECIFY) (X) AS DRILLED PLUG & ABANDON ___ CLEAN OUT & REPLUG ___

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,284' TVD 13,231' MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

10/23/2015

COUNTY NAME PERMIT