

JUL 27 2015

WR-35
Rev. 8/23/13

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

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

API 47 - 017 - 06182 County Doddridge District Greenbrier
Quad Big Isaac Pad Name Marsden Pad Field/Pool Name _____
Farm name Marsden, Richard E. & Wilma J. Well Number White 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 4,344,287.396m Easting 534,628.905m
Landing Point of Curve Northing 4,344,037.32m Easting 534,489.81m
Bottom Hole Northing 4,341,519.143m Easting 535,365.629m

Elevation (ft) 975' 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 3/28/2013 Date drilling commenced 6/28/2014 Date drilling ceased 9/16/2014
Date completion activities began 9/21/2014 Date completion activities ceased 11/29/2014
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 153' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1750' Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

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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"	90'	New	106.5#/J-55	N/A	Y
Surface	17-1/2"	13-3/8"	370'	New	54.5#/J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2580'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	16,559'	New	23#/P-110	N/A	Y
Tubing		2-3/8"	7114'		4.7#/N-80		
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	196 sx	15.6	1.18	38 Cu. Ft.	0'	8 Hrs.
Surface	Class A	428 sx	15.6	1.18	257 Cu. Ft.	0'	8 Hrs.
Coal							
Intermediate 1	Class A	957 sx	15.6	1.18	808 Cu. Ft.	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	956 sx (Lead), 1535 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.80 (Tail)	3317 Cu. Ft.	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16,559' MD, 7062' TVD (BHL); 7117' TVD (Deepest Point Drilled) Loggers TD (ft) 16,569' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6467'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Flossie Unit 2H API# 47-017-06144). Please reference the wireline logs submitted with Form WR-35 for the Flossie Unit 2H. A Cement Bond Log has been included with this submittal.

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

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 N/A

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

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)

SEE ATTACHED EXHIBIT 2

Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>7053' (Top)</u> TVD	<u>7482' (Top)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3600 psi Bottom Hole ---- psi DURATION OF TEST ---- hrs

OPEN FLOW Gas 2550 mcfpd Oil --- bpd NGL --- bpd Water 2192 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)
-------------------------	--------------------------------	------------------------------	--------------------------	-----------------------------	--

	0		0		

SEE ATTACHED EXHIBIT 3

Please insert additional pages as applicable.

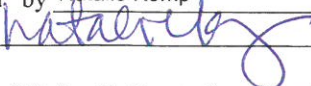
Drilling Contractor Frontier Drilling LLC
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company STRC
Address 1560 Good Hope Pike City Clarksburg State WV Zip 26301

Cementing Company Allied Oil & Gas Services, LLC
Address 1036 East Main Street City Bridgeport State WV Zip 26330

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

Please insert additional pages as applicable.

Completed by Natalie Komp Telephone 303-357-6820
Signature  Title Permitting Agent Date 7/23/2015

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API 47-017-06182 Farm Name Marsden, Richard E. & Wilma J. Well Number White Unit 1H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	21-Sep-14	17,094	17,282	60	Marcellus
2	26-Oct-14	16,870	17,058	60	Marcellus
3	26-Oct-14	16,646	16,834	60	Marcellus
4	27-Oct-14	16,422	16,611	60	Marcellus
5	27-Oct-14	16,198	16,387	60	Marcellus
6	2-Nov-14	15,306	15,482	60	Marcellus
7	2-Nov-14	15,098	15,273	60	Marcellus
8	3-Nov-14	14,890	15,065	60	Marcellus
9	3-Nov-14	14,457	14,626	60	Marcellus
10	4-Nov-14	14,256	14,425	60	Marcellus
11	4-Nov-14	14,056	14,225	60	Marcellus
12	4-Nov-14	13,855	14,024	60	Marcellus
13	5-Nov-14	13,655	13,824	60	Marcellus
14	5-Nov-14	13,454	13,623	60	Marcellus
15	5-Nov-14	13,253	13,423	60	Marcellus
16	5-Nov-14	13,053	13,222	60	Marcellus
17	6-Nov-14	12,852	13,021	60	Marcellus
18	6-Nov-14	12,652	12,821	60	Marcellus
19	6-Nov-14	12,451	12,620	60	Marcellus
20	7-Nov-14	12,251	12,420	60	Marcellus
21	7-Nov-14	12,050	12,219	60	Marcellus
22	7-Nov-14	11,849	12,019	60	Marcellus
23	7-Nov-14	11,649	11,818	60	Marcellus
24	8-Nov-14	11,448	11,617	60	Marcellus
25	8-Nov-14	11,248	11,417	60	Marcellus
26	8-Nov-14	11,047	11,216	60	Marcellus
27	9-Nov-14	10,665	10,830	60	Marcellus
28	9-Nov-14	10,468	10,364	60	Marcellus
29	9-Nov-14	10,272	10,438	60	Marcellus
30	9-Nov-14	10,076	10,241	60	Marcellus
31	10-Nov-14	9,880	10,045	60	Marcellus
32	10-Nov-14	9,683	9,849	60	Marcellus
33	10-Nov-14	9,683	9,849	60	Marcellus
34	10-Nov-14	9,291	9,457	60	Marcellus
35	11-Nov-14	9,095	9,260	60	Marcellus
36	11-Nov-14	8,899	9,064	60	Marcellus
37	11-Nov-14	8,702	8,868	60	Marcellus
38	11-Nov-14	8,506	8,672	60	Marcellus
39	12-Nov-14	8,310	8,476	60	Marcellus
40	12-Nov-14	8,114	8,279	60	Marcellus
41	12-Nov-14	7,918	8,083	60	Marcellus
42	12-Nov-14	7,721	7,887	60	Marcellus
43	13-Nov-14	7,525	7,691	60	Marcellus

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API 47-017-06182 Farm Name Marsden, Richard E. & Wilma J. Well Number White Unit 1H

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	25-Oct-14	57.7	7,145	6,447	4,965	249,400	7,249	N/A
2	26-Oct-14	61.0	7,446	5,451	5,517	249,400	7,162	N/A
3	26-Oct-14	63.0	7,376	9,509	5,894	247,200	7,144	N/A
4	27-Oct-14	60.4	7,389	6,240	5,655	249,000	7,138	N/A
5	27-Oct-14	61.2	7,223	6,218	5,465	249,100	7,241	N/A
6	2-Nov-14	61.0	7,122	6,315	5,151	245,900	6,693	N/A
7	2-Nov-14	63.7	7,458	6,041	5,395	244,600	6,795	N/A
8	3-Nov-14	63.5	7,337	6,351	5,616	247,700	6,800	N/A
9	3-Nov-14	63.2	7,134	6,248	5,597	249,400	6,678	N/A
10	4-Nov-14	64.2	7,367	6,100	5,017	247,000	6,611	N/A
11	4-Nov-14	61.3	7,165	6,273	5,779	248,800	6,639	N/A
12	4-Nov-14	64.9	7,351	6,189	5,647	194,300	6,963	N/A
13	5-Nov-14	64.8	7,427	6,372	5,466	244,800	6,650	N/A
14	5-Nov-14	59.2	7,344	6,407	5,779	249,700	6,544	N/A
15	5-Nov-14	51.3	7,714	6,229	5,537	67,600	6,514	N/A
16	5-Nov-14	64.7	6,774	5,727	5,735	248,700	6,547	N/A
17	6-Nov-14	63.0	7,048	6,013	5,723	250,800	6,548	N/A
18	6-Nov-14	62.1	6,820	5,926	5,066	247,800	6,535	N/A
19	6-Nov-14	63.0	6,878	5,640	5,179	247,700	6,497	N/A
20	7-Nov-14	64.6	6,740	5,672	5,413	246,700	6,481	N/A
21	7-Nov-14	63.1	6,512	5,933	5,441	247,900	6,464	N/A
22	7-Nov-14	62.2	6,689	5,771	5,407	246,200	6,402	N/A
23	7-Nov-14	64.1	6,968	6,095	5,134	249,200	6,421	N/A
24	8-Nov-14	64.8	6,889	6,333	5,220	247,300	6,391	N/A
25	8-Nov-14	62.9	6,723	6,086	5,685	240,600	6,340	N/A
26	8-Nov-14	66.7	7,204	6,201	5,603	235,200	6,884	N/A
27	8-Nov-14	63.9	6,734	5,874	4,277	248,700	6,323	N/A
28	9-Nov-14	63.0	6,793	6,284	4,872	250,200	6,361	N/A
29	9-Nov-14	62.7	7,020	6,159	4,457	248,000	6,310	N/A
30	9-Nov-14	65.1	6,999	6,712	5,570	249,300	6,308	N/A
31	9-Nov-14	64.6	6,706	5,787	5,608	246,900	6,246	N/A
32	10-Nov-14	63.2	6,929	5,820	4,879	248,500	6,276	N/A
33	10-Nov-14	64.2	6,912	6,070	5,398	249,000	6,318	N/A
34	10-Nov-14	63.7	6,730	6,495	4,860	249,000	6,262	N/A
35	11-Nov-14	61.7	6,780	5,911	4,936	244,900	6,228	N/A
36	11-Nov-14	64.3	6,996	5,875	5,506	237,200	6,163	N/A
37	11-Nov-14	64.7	6,433	5,992	5,444	249,000	6,152	N/A
38	11-Nov-14	64.4	6,501	6,329	5,556	247,500	6,137	N/A
39	12-Nov-14	63.6	6,400	6,308	5,559	250,400	6,202	N/A
40	12-Nov-14	63.9	6,311	5,945	5,249	247,600	6,208	N/A
41	12-Nov-14	63.8	6,567	6,843	5,192	237,800	5,963	N/A
42	12-Nov-14	63.0	6,751	5,868	5,251	248,600	6,272	N/A
43	13-Nov-14	64.7	6,872	6,931	5,354	248,800	6,184	N/A
	AVG=	62.9	6,969	6,209	5,350	10,393,400	280,244	TOTAL

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API 47-017-06182 Farm Name Marsden, Richard E. & Wilma J. Well Number White Unit 1H

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	153	N/A	153	N/A
Shale	0	287	0	287
Shale w/ Trace Coal	287	307	287	307
Sandstone	307	747	307	747
Unknown	747	787	747	787
Shale	787	1,107	787	1,107
Sandstone	1,107	1,167	1,107	1,167
Siltstone	1,167	1,187	1,167	1,187
Sandstone	1,187	1,307	1,187	1,307
Siltstone/Shale	1,307	1,587	1,307	1,587
Sandstone w/ Trace Coal	1,587	1,607	1,587	1,607
Sandstone	1,607	1,747	1,607	1,747
Shale	1,747	1,787	1,747	1,787
Sandstone	1,787	1,807	1,787	1,807
Shale	1,807	1,998	1,807	2,001
Big Lime	1,998	2,126	2,001	2,129
Big Injun	2,126	2,497	2,129	2,500
Gantz Sand	2,497	2,619	2,500	2,622
Fifty Foot Sandstone	2,619	2,713	2,622	2,716
Gordon	2,713	2,882	2,716	2,885
Fifth Sandstone	2,882	2,926	2,885	2,929
Bayard	2,926	3,408	2,929	3,411
Warren	3,408	3,634	3,411	3,637
Speechley	3,634	3,926	3,637	3,929
Baltown	3,926	4,406	3,929	4,409
Bradford	4,406	5,024	4,409	5,027
Benson	5,024	5,314	5,027	5,317
Alexander	5,314	5,507	5,317	5,510
Elk	5,507	6,074	5,510	6,077
Rhinestreet	6,074	6,520	6,077	6,524
Sycamore	6,520	6,747	6,524	6,784
Middlesex	6,747	6,896	6,784	7,066
Burkett	6,896	6,922	7,066	7,129
Tully	6,922	7,053	7,129	7,482
Marcellus	7,053	NA	7,482	NA
Onondaga**	7,039	NA	10,827	NA

**Antero drilled a small portion of this well less than 5 feet into the Onondaga formation from approximately 10,850'-11,027' and 14,646'-14,870' in the lateral but this section was not perforated or completed.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/25/2014
Job End Date:	11/13/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06182-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	White Unit 1H
Longitude:	-80.59869200
Latitude:	39.24721700
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,117
Total Base Water Volume (gal):	11,770,248
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
Water	ANTERO RESOURCES	Water					
			Water	7732-18-5	100.00000	90.07579	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	5.21229	
			Aluminum Oxide	1344-28-1	1.10000	0.05739	
			Titanium Oxide	13463-67-7	0.10000	0.00522	
			Iron Oxide	1309-37-1	0.10000	0.00522	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	3.50377	
			Aluminum Oxide	1344-28-1	1.10000	0.03858	
			Iron Oxide	1309-37-1	0.10000	0.00351	
			Titanium Oxide	13463-67-7	0.10000	0.00351	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	0.81145	
			Aluminum Oxide	1344-28-1	1.10000	0.00894	

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					Titanium Oxide	13463-67-7	0.10000	0.00081	
					Iron Oxide	1309-37-1	0.10000	0.00081	
HCl Acid (12.5-18.0%) 22 Baume	Nabors Completion and Production Services	Bulk Acid							
					Water	7732-18-5	87.50000	0.17578	
					Hydrochloric Acid	7647-01-0	18.00000	0.03616	
WFR-6W	Nabors Completion and Production Services	Friction Reducer							
					Anionic Water-Soluble Polymer Emulsion	Proprietary	100.00000	0.06854	
LSG-100L	Nabors Completion and Production Services	Gelling Agents							
					Petroleum Distillates	64742-47-8	70.00000	0.05587	
Super TSC-LT	Nabors Completion and Production Services	Paraffin & Scale Additives							
					100% Non-Hazardous Mixture	Proprietary	100.00000	0.01476	
AQUACAR DB 20	Nabors Completion and Production Services	Biocides							
					Polyethylene glycol	25322-68-3	54.50000	0.00912	
					2,2-Dibromo-3-nitro- propanamide (DBNPA)	10222-01-2	20.00000	0.00335	
					Sodium bromide	7647-15-6	4.00000	0.00067	
					Dibromoacetonitrile	3252-43-5	3.00000	0.00050	
Super GREEN SOLV- M	Nabors Completion and Production Services	Paraffin & Scale Additives							
					Aliphatic Hydrocarbons	Proprietary	95.00000	0.00297	
					Dodecane	Proprietary	14.00000	0.00044	
					Tetradecane	Proprietary	11.00000	0.00034	
					Tridecane	Proprietary	9.00000	0.00028	
					Undecane	Proprietary	8.00000	0.00025	
OB-2 LT	Nabors Completion and Production Services	Gel Breakers							
					Ammonium Persulfate	7727-54-0	85.00000	0.00090	
					Crystalline Silica (in the form of quartz)	14808-60-7	10.00000	0.00011	
Acid Inhibitor 2 (AI-2)	Nabors Completion and Production Services	Acid Corrosion Inhibitors							
					Propargyl Alcohol	107-19-7	40.00000	0.00015	
					Isopropyl Alcohol	67-63-0	40.00000	0.00015	
					Glycol Ethers	111-46-6	40.00000	0.00015	
					Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000	0.00004	
EB-4L	Nabors Completion and Production Services	Gel Breakers							

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Super TSC 2 LT	Nabors Completion and Production Services	Paraffin & Scale Additives	Ethylene Glycol	107-21-1	40.00000	0.00016
			Bis(hexamethylene triaminepenta(methylenephosphonic acid))	Proprietary	10.00000	0.00015
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.						
	Nabors Completion and Production Services	Other Ingredients				
			Copolymer	Proprietary	100.00000	0.06854
			guar gum	9000-30-0	50.00000	0.03991
			Water	7732-18-5	40.00000	0.02742
			Isoparaffinic Solvent	64742-47-8	26.00000	0.01782
			Water	7732-18-5	60.00000	0.00885
			Proprietary	Proprietary	50.00000	0.00738
			Water	7732-18-5	32.00000	0.00536
			Ethoxylated alcohols	Proprietary	4.00000	0.00274
			Ethylene Glycol	107-21-1	4.00000	0.00274
			Proprietary	Proprietary	15.00000	0.00221
			Proprietary	Proprietary	15.00000	0.00221
			Proprietary	Proprietary	15.00000	0.00221
			Surfactant Blend	Proprietary	3.00000	0.00206
			Crystalline Silica (in the form of quartz)	14808-60-7	2.00000	0.00160
			Surfactant	68439-51-0	2.00000	0.00160
			Water	7732-18-5	90.00000	0.00130
			Proprietary	Proprietary	100.00000	0.00041
			Sugar	57-50-1	100.00000	0.00041
			Water	7732-18-5	100.00000	0.00021
			Water	7732-18-5	48.00000	0.00018
			Monobromo-3-nitropropionamide	1113-55-9	1.00000	0.00017
			2,2-Dibromomalonamide	73003-80-2	1.00000	0.00017
			Alkali Chloride salt	Proprietary	15.00000	0.00016
			2-Propenamide as residual	79-06-1	0.10000	0.00007
			2-Butoxyethanol	111-76-2	13.00000	0.00005
			Proprietary	Proprietary	10.00000	0.00004
			Sodium Hydroxide	1310-73-2	1.00000	0.00001
			Proprietary	Proprietary	0.99000	0.00000
			Proprietary	Proprietary	1.00000	0.00000
			Proprietary	Proprietary	1.00000	0.00000
			Proprietary	Proprietary	1.00000	0.00000
			Proprietary	Proprietary	1.00000	0.00000
			Proprietary	Proprietary	0.02000	
			Organophilic Clay	68953-58-2		

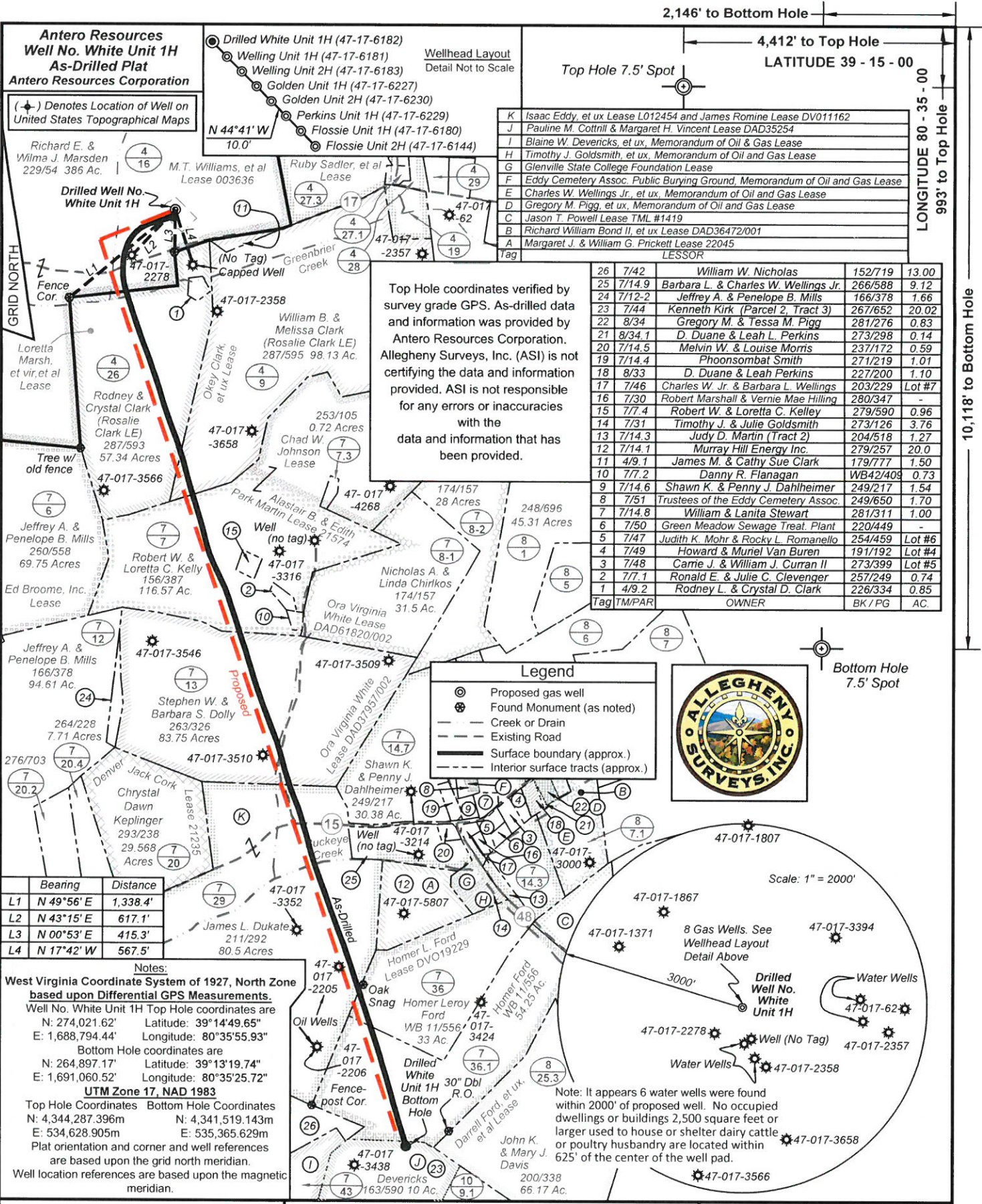
* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

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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JUL 27 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV



FILE NO: 236-30-G-12
 DRAWING NO: As-Drilled White 1H Well
 SCALE: 1" = 1200'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WV DOT, Bridgeport, WV

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

DATE: March 30 2015
 OPERATOR'S WELL NO. White Unit 1H
 API WELL NO
 47 - 017 - 06182
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: Existing Grade - 975' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: Big Isaac
 DISTRICT: Greenbrier Richard E. & Pauline M. Cottrill & Margaret H. Vincent; Isaac Eddy, et ux and James Romine; DAD35254; COUNTY: Doddridge
 SURFACE OWNER: Wilma J. Marsden Alastair B. & Edith Park Martin; Loretta Marsh, et vir, et al; L012454 and DV011162; ACREAGE: 386 46;
 ROYALTY OWNER: M.T. Williams, et al; Okey Clark, et ux; Homer L. Ford; Ora Virginia White LEASE NO: 003636; DAD37957/002 ACREAGE: 350; 57; 100; 221

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale 7.062' TVD
 DEPTH: 16,559' 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

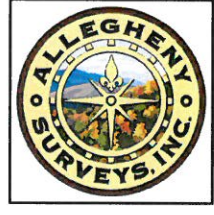
K	Isaac Eddy, et ux Lease L012454 and James Romine Lease DV011162
J	Pauline M. Cottrill & Margaret H. Vincent Lease DAD35254
I	Blaine W. Devericks, et ux, Memorandum of Oil & Gas Lease
H	Timothy J. Goldsmith, et ux, Memorandum of Oil and Gas Lease
G	Glenville State College Foundation Lease
F	Eddy Cemetery Assoc. Public Burying Ground, Memorandum of Oil and Gas Lease
E	Charles W. Wellings Jr., et ux, Memorandum of Oil and Gas Lease
D	Gregory M. Pigg, et ux, Memorandum of Oil and Gas Lease
C	Jason T. Powell Lease TML #1419
B	Richard William Bond II, et ux Lease DAD36472/001
A	Margaret J. & William G. Prickett Lease 22045
LESSOR	

26	7/42	William W. Nicholas	152/719	13.00
25	7/14.9	Barbara L. & Charles W. Wellings Jr.	266/588	9.12
24	7/12-2	Jeffrey A. & Penelope B. Mills	166/378	1.66
23	7/44	Kenneth Kirk (Parcel 2, Tract 3)	267/652	20.02
22	8/34	Gregory M. & Tessa M. Pigg	281/276	0.83
21	8/34.1	D. Duane & Leah L. Perkins	273/298	0.14
20	7/14.5	Melvin W. & Louise Morris	237/172	0.59
19	7/14.4	Phoonsombat Smith	271/219	1.01
18	8/33	D. Duane & Leah Perkins	227/200	1.10
17	7/46	Charles W. Jr. & Barbara L. Wellings	203/229	Lot #7
16	7/30	Robert Marshall & Vernie Mae Hilling	280/347	-
15	7/7.4	Robert W. & Loretta C. Kelley	279/590	0.96
14	7/31	Timothy J. & Julie Goldsmith	273/126	3.76
13	7/14.3	Judy D. Martin (Tract 2)	204/518	1.27
12	7/14.1	Murray Hill Energy Inc.	279/257	20.0
11	4/9.1	James M. & Cathy Sue Clark	179/777	1.50
10	7/7.2	Danny R. Flanagan	WB42/409	0.73
9	7/14.6	Shawn K. & Penny J. Dahlheimer	249/217	1.54
8	7/51	Trustees of the Eddy Cemetery Assoc.	249/650	1.70
7	7/14.8	William & Lanita Stewart	281/311	1.00
6	7/50	Green Meadow Sewage Treat. Plant	220/449	-
5	7/47	Judith K. Mohr & Rocky L. Romanello	254/459	Lot #6
4	7/49	Howard & Munei Van Buren	191/192	Lot #4
3	7/48	Carrie J. & William J. Curran II	273/399	Lot #5
2	7/7.1	Ronald E. & Julie C. Clevenger	257/249	0.74
1	4/9.2	Rodney L. & Crystal D. Clark	226/334	0.85
Tag	TM/PAR	OWNER	BK / PG	AC.

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.

Legend

- Proposed Gas well
- Found Monument (as noted)
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)



Bearing	Distance
L1 N 49°56' E	1,338.4'
L2 N 43°15' E	617.1'
L3 N 00°53' E	415.3'
L4 N 17°42' W	567.5'

Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. White Unit 1H Top Hole coordinates are
 N: 274,021.62' Latitude: 39°14'49.65"
 E: 1,688,794.44' Longitude: 80°35'55.93"
 Bottom Hole coordinates are
 N: 264,897.17' Latitude: 39°13'19.74"
 E: 1,691,060.52' Longitude: 80°35'25.72"
UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,344,287.396m N: 4,341,519.143m
 E: 534,628.905m E: 535,365.629m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

