

JUL 20 2015

WR-35  
Rev. 8/23/13

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

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

API 47 - 017 - 06420 County Doddridge District New Milton  
Quad Headwaters Middle Island Creek Pad Name Snake Run Pad Field/Pool Name \_\_\_\_\_  
Farm name Dufflemeyer, Michael B. et al & Hyre, Justine Paula et al Well Number Honey 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 4,339,586.264m Easting 530,173.530m  
Landing Point of Curve Northing 4,339,409.50m Easting 530,333.17m  
Bottom Hole Northing 4,337,666.340m Easting 530,871.001m

Elevation (ft) 1,081' 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 12/30/2013 Date drilling commenced 07/04/2014 Date drilling ceased 10/15/2014  
Date completion activities began 10/23/2014 Date completion activities ceased 01/01/2015  
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 107', 132' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 968', 1864' 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: \_\_\_\_\_

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API 47-017 - 06420

Farm name Duffemeyer, Michael B. et al & Hyre, Justine Paula et al

Well number Honey 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"	372'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,545'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	13,591'	New	20#; P-110	N/A	Yes
Tubing		2 3/8"	7,272'		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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	196 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	448 sx	15.6	1.18	258	0'	8 Hrs.
Coal							
Intermediate 1	Class A	998 sx	15.6	1.18	797	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	982 sx (Lead); 1,055sx (Tail)	13.5 (Lead); 15.2 (Tail)	1.44 (Lead); 1.78 (Tail)	2,645	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13,591' MD; 7,091' TVD (BHL); 7,094' (Deepest Point Drilled)

Loggers TD (ft) 13,543'

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6,508'

\*\*This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Asena Unit 2H, API #47-017-06429). Please reference the wireline logs submitted with Form WR-35 for the Asena 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
- 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 - 06420

Farm name Dufflemeyer, Michael B. et al & Hyre, Justine Paula et al

Well number Honey Unit 1H

PERFORATION RECORD

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

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)
		<b>* PLEASE SEE ATTACHED EXHIBIT 2</b>						

Please insert additional pages as applicable.

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API 47- 017 - 06420 Farm name Duffemeyer, Michael B. et al & Hyre, Justine Paula et al Well number Honey Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>7,030' (top)</u> TVD	<u>7,311' (top)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST     Build up     Drawdown     Open Flow                      OIL TEST     Flow     Pump

SHUT-IN PRESSURE    Surface 3,950 psi    Bottom Hole \_\_\_\_\_ psi    DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW    Gas                      Oil                      NGL                      Water                      GAS MEASURED BY

10,413 mcfpd    1 bpd    \_\_\_\_\_ bpd    1 bpd     Estimated     Orifice     Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP DEPTH IN FT</u>	<u>BOTTOM DEPTH IN FT</u>	<u>TOP DEPTH IN FT</u>	<u>BOTTOM DEPTH IN FT</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H<sub>2</sub>S, ETC)</u>
	<u>NAME</u>	<u>TVD</u>	<u>MD</u>	<u>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 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 US Well Services  
 Address 533 Industrial Park Drive City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Megan Darling Telephone 303-357-7230  
 Signature Megan C. Darling Title Permitting Agent Date 07/17/2015

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API 47-017-06420 Farm Name Dufflemeyer, Michael B. et al Well Number Honey Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	23-Oct-14	13,331	13,499	60	Marcellus
2	6-Dec-14	13,132	13,300	60	Marcellus
3	6-Dec-14	12,933	13,101	60	Marcellus
4	6-Dec-14	12,734	12,902	60	Marcellus
5	7-Dec-14	12,535	12,703	60	Marcellus
6	7-Dec-14	12,335	12,503	60	Marcellus
7	7-Dec-14	12,136	12,304	60	Marcellus
8	7-Dec-14	11,937	12,105	60	Marcellus
9	8-Dec-14	11,738	11,906	60	Marcellus
10	8-Dec-14	11,539	11,707	60	Marcellus
11	8-Dec-14	11,340	11,508	60	Marcellus
12	9-Dec-14	11,140	11,308	60	Marcellus
13	9-Dec-14	10,941	11,109	60	Marcellus
14	9-Dec-14	10,742	10,910	60	Marcellus
15	9-Dec-14	10,543	10,711	60	Marcellus
16	10-Dec-14	10,344	10,512	60	Marcellus
17	10-Dec-14	10,145	10,313	60	Marcellus
18	10-Dec-14	9,945	10,113	60	Marcellus
19	11-Dec-14	9,746	9,914	60	Marcellus
20	11-Dec-14	9,547	9,715	60	Marcellus
21	11-Dec-14	9,348	9,516	60	Marcellus
22	11-Dec-14	9,149	9,317	60	Marcellus
23	11-Dec-14	8,950	9,118	60	Marcellus
24	12-Dec-14	8,750	8,918	60	Marcellus
25	12-Dec-14	8,551	8,719	60	Marcellus
26	12-Dec-14	8,352	8,520	60	Marcellus
27	12-Dec-14	8,153	8,321	60	Marcellus
28	13-Dec-14	7,954	8,122	60	Marcellus
29	13-Dec-14	7,755	7,923	60	Marcellus
30	13-Dec-14	7,555	7,723	60	Marcellus
31	14-Dec-14	7,356	7,524	60	Marcellus

**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	5-Dec-14	64.6	7,526	N/A	4,674	232,880	7,000	N/A
2	6-Dec-14	64.7	7,569	6,690	5,525	195,080	6,016	N/A
3	6-Dec-14	63.2	7,371	6,508	6,146	195,100	6,017	N/A
4	6-Dec-14	65.0	7,509	6,566	5,771	243,840	6,471	N/A
5	7-Dec-14	63.0	7,377	6,214	5,405	244,255	6,428	N/A
6	7-Dec-14	64.1	7,255	5,933	5,807	216,780	6,274	N/A
7	7-Dec-14	62.4	7,496	6,268	5,146	209,480	7,106	N/A
8	7-Dec-14	68.4	7,533	6,018	5,546	239,400	6,514	N/A
9	8-Dec-14	64.9	7,416	6,136	5,659	234,680	6,796	N/A
10	8-Dec-14	67.5	7,379	6,211	5,718	241,230	6,524	N/A
11	8-Dec-14	67.4	7,292	6,392	5,598	246,420	6,357	N/A
12	9-Dec-14	66.7	7,157	6,238	5,739	237,900	6,439	N/A
13	9-Dec-14	67.2	7,208	6,100	5,658	238,740	6,357	N/A
14	9-Dec-14	68.0	7,161	6,111	5,832	250,825	6,318	N/A
15	9-Dec-14	68.5	7,425	5,845	4,956	241,260	6,253	N/A
16	10-Dec-14	65.8	7,312	6,163	5,738	227,980	6,155	N/A
17	10-Dec-14	66.1	7,406	6,102	5,453	240,020	6,257	N/A
18	10-Dec-14	65.4	7,868	5,990	5,206	114,310	6,513	N/A
19	11-Dec-14	68.9	7,117	6,307	4,999	236,600	6,333	N/A
20	11-Dec-14	66.2	7,267	5,977	5,674	243,260	6,190	N/A
21	11-Dec-14	66.8	7,190	5,969	5,368	237,880	6,103	N/A
22	11-Dec-14	69.5	7,087	5,969	5,235	245,850	6,125	N/A
23	11-Dec-14	68.7	6,937	5,781	5,207	245,500	6,140	N/A
24	12-Dec-14	68.4	6,996	5,817	5,542	217,220	5,909	N/A
25	12-Dec-14	67.2	6,938	5,643	4,920	243,680	6,172	N/A
26	12-Dec-14	67.8	6,997	6,296	5,156	245,590	6,065	N/A
27	12-Dec-14	68.7	6,824	6,262	5,168	246,400	6,075	N/A
28	13-Dec-14	66.2	6,744	5,844	5,382	236,237	6,065	N/A
29	13-Dec-14	68.4	6,543	5,501	4,878	221,520	5,741	N/A
30	13-Dec-14	67.8	6,642	5,906	5,383	244,740	6,052	N/A
31	14-Dec-14	67.9	6,732	6,686	5,163	210,460	5,852	N/A
	AVG=	<b>66.6</b>	<b>7,202</b>	<b>6,115</b>	<b>5,408</b>	<b>7,125,117</b>	<b>194,617</b>	TOTAL

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**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Fresh Water	107'	N/A	107'	N/A
Fresh Water	132'	N/A	132'	N/A
Shale	0	367	0	367
Siltstone/ Sandstone	est. 367	467	est. 367	467
Shale	est. 467	607	est. 467	607
Siltstone/ Sandstone	est. 607	687	est. 607	687
Shale	est. 687	727	est. 687	727
Siltstone/ Shale	est. 727	1,387	est. 727	1,387
Sandstone/ Siltstone	est. 1387	1,427	est. 1387	1,427
Shale/ Limestone	est. 1427	1,467	est. 1427	1,467
Sanstone	est. 1467	1,527	est. 1467	1,527
Siltstone/ Sandstone	est. 1527	1,947	est. 1527	1,947
Shale	est. 1947	1,967	est. 1947	1,967
Siltstone	est. 1967	2,106	est. 1967	2,108
Big Lime	2,106	2,226	2,108	2,228
Big Injun	2,226	2,440	2,228	2,442
Gantz Sand	2,440	2,612	2,442	2,614
Fifty Foot Sandstone	2,612	2,821	2,614	2,823
Gordon	2,821	3,168	2,823	3,170
Fifth Sandstone	3,168	3,231	3,170	3,233
Bayard	3,231	3,505	3,233	3,507
Warren	3,505	3,796	3,507	3,798
Speechley	3,796	3,973	3,798	3,975
Baltown	3,973	4,602	3,975	4,604
Bradford	4,602	5,076	4,604	5,078
Benson	5,076	5,352	5,078	5,354
Alexander	5,352	5,607	5,354	5,609
Elk	5,607	6,080	5,609	6,082
Rhinestreet	6,080	6,585	6,082	6,589
Sycamore	6,585	6,749	6,589	6,768
Middlesex	6,749	6,883	6,768	7,024
Burkett	6,883	6,924	7,024	7,024
Tully	6,924	7,030	7,024	7,311
Marcellus	7,030	NA	7,311	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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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/5/2014
Job End Date:	12/14/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06420-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Honey Unit 1H
Longitude:	-80.65053300
Latitude:	39.20501900
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,094
Total Base Water Volume (gal):	8,173,914
Total Base Non Water Volume:	366,788



## 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	Base Fluid	Water	7732-18-5	100.00000	90.16135	
Sand	J.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	9.42359	
LGC-15	J.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.07963	
			Petroleum Distillates	64742-47-8	60.00000	0.07542	
			Suspending agent (solid)	14808-60-7	3.00000	0.01218	
			Surfactant	68439-51-0	3.00000	0.00478	
HCL Acid (12.6%-18.0%)	J.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.09160	
			Hydrogen Chloride	7647-01-1	18.00000	0.02188	
WFRA-405	J.S. Well Services, LLC	Friction Reducer	Water	7732-18-5	40.00000	0.03101	
			Anionic Polyacrylamide	Proprietary	40.00000	0.03101	
			Petroleum Distillates	64742-47-8	40.00000	0.02497	
			Crystalline Salt	12125-02-9	5.00000	0.00388	



SI-1100	J.S. Well Services	Scale Inhibitor	Ethoxylated alcohol blend	Proprietary	5.00000	0.00388
			DI Water	7732-18-5	80.00000	0.01065
			Ethylene Glycol	107-21-1	40.00000	0.00602
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	10.00000	0.00180
			2-Phosphonobutane 1,2,4 tricarboxylic salt	37971-36-1	10.00000	0.00172
			hexamethylenediamine tetra (methylene phosphonic acid)	38820-59-6	10.00000	0.00166
			Copolymer of Maleic and Acrylic acid	26677-99-6	10.00000	0.00157
			bis (hexamethylene) tramine penta (methylene phosphonic acid) - phosphate acid	40623-75-4	10.00000	0.00153
			Acrylic polymer	52255-49-9	5.00000	0.00067
K-BAC 1020	J.S. Well Services, LLC	Anti-Bacterial Agent				
			2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00430
			Deionized Water	7732-18-5	28.00000	0.00246
AP One	J.S. Well Services, LLC	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00209
AI-301	J.S. Well Services, LLC	Acid Corrosion Inhibitors				
			Diethylene Glycol	111-46-6	30.00000	0.00014
			Methanamine	100-97-0	20.00000	0.00011
			Hydrogen Chloride	7647-01-0	10.00000	0.00005
			Polyethylene polyamine	38603-67-8	10.00000	0.00004
			Coco amine	61791-14-8	5.00000	0.00002

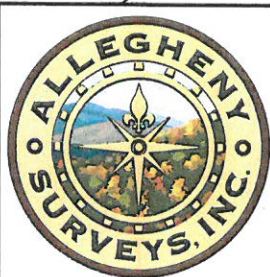
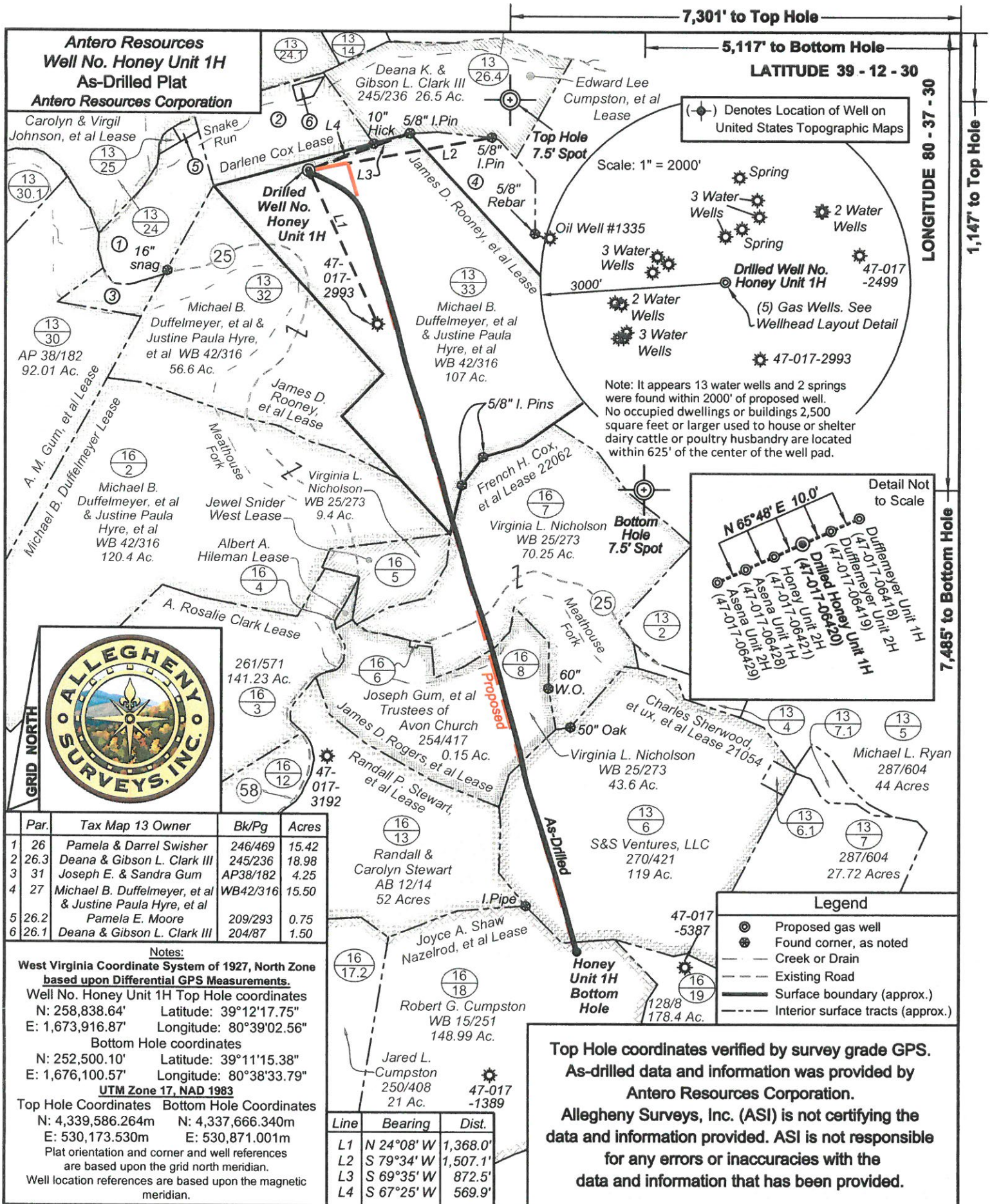
Ingredients shown above are subject to 29 CFR 1910.1200(j) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

\* 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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Par.	Tax Map 13 Owner	Bk/Pg	Acres
1	26 Pamela & Darrel Swisher	246/469	15.42
2	26.3 Deana & Gibson L. Clark III	245/236	18.98
3	31 Joseph E. & Sandra Gum	AP38/182	4.25
4	27 Michael B. Duffelmeyer, et al & Justine Paula Hyre, et al	WB42/316	15.50
5	26.2 Pamela E. Moore	209/293	0.75
6	26.1 Deana & Gibson L. Clark III	204/87	1.50

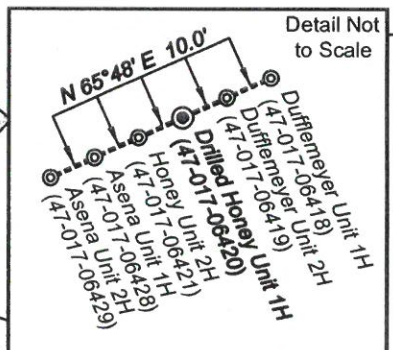
**Notes:**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Honey Unit 1H Top Hole coordinates  
 N: 258,838.64' Latitude: 39°12'17.75"  
 E: 1,673,916.87' Longitude: 80°39'02.56"  
 Bottom Hole coordinates  
 N: 252,500.10' Latitude: 39°11'15.38"  
 E: 1,676,100.57' Longitude: 80°38'33.79"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,339,586.264m N: 4,337,666.340m  
 E: 530,173.530m E: 530,871.001m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

Line	Bearing	Dist.
L1	N 24°08' W	1,368.0'
L2	S 79°34' W	1,507.1'
L3	S 69°35' W	872.5'
L4	S 67°25' W	569.9'

Scale: 1" = 2000'



Note: It appears 13 water wells and 2 springs were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



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

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.

FILE NO: 69-30-NM-13  
 DRAWING NO: Honey Unit 1H Well Plat As-Drill  
 SCALE: 1" = 1000'  
 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: March 30 2015  
 OPERATOR'S WELL NO. Honey Unit 1H  
 API WELL NO  
 47 - 017 - 06420  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: Existing Grade - 1081' Original Grade - 1112' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: New Milton  
 DISTRICT: New Milton COUNTY: Doddridge  
 SURFACE OWNER: Michael B. Duffelmeyer, et al & Justine Paula Hyre, et al James D. Rogers, et al Charles Sherwood, et ux, et al  
 ROYALTY OWNER: Joyce A. Shaw Nazelrod, et al; James D. Rooney, et al; French H. Cox, et al LEASE NO: 21054 22062 ACREAGE: 107 163.85  
 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 DEPTH: 7,091' TVD 13,591' 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