

APPROVED



NAME: *[Signature]*
DATE: *9/15/16*

August 31, 2016

Antero Resources
1615 Wynkoop Street
Denver, CO 80202
Office 303.357.7310
Fax 303.357.7315

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: John Kearney
601 57th Street
Charleston, WV 25304

Mr. Kearney:

Please find enclosed the Well Operator's Report of Well Work, Form WR-35 (including As-Drilled Survey Plat, Directional Survey and FracFocus report) and corresponding logs for the following well:

- Hoskins Unit 1H (API# 47-017-06416) – Hamilton Pad
- Hoskins Unit 2H (API# 47-017-06304) – Hamilton Pad

If you have any questions please feel free to contact me at (303) 357-7233.

Sincerely,

[Signature: Kara Quackenbush]

Kara Quackenbush
Permitting Agent
Antero Resources Corporation

Enclosures

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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 47-017-06416 County Doddridge District Grant
Quad Smithburg 7.5' Pad Name Hamilton Field/Pool Name ----
Farm name Kenneth E. Hamilton, et al Well Number Hoskins 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 4357617m Easting 522087m
Landing Point of Curve Northing 4357835.21m Easting 522106.95m
Bottom Hole Northing 4360518m Easting 521023m

Elevation (ft) 1157' 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 9/5/2014 Date drilling ceased 2/3/2016
Date completion activities began 3/29/2016 Date completion activities ceased 6/8/2016
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 225' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 630' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 840' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

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API 47-017-06416 Farm name Kenneth E. Hamilton, et al Well number Hoskins 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	30"	20"	40'	New	94# J-55	N/A	Y
Surface	17-1/2"	13-3/8"	409'	New	48# H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2558'	New	36# J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	16996'	New	23# P-110	N/A	Y
Tubing		2-3/8"	7096'		4.7# N-80		
Packer type and depth set		N/A					

Comment Details Side Track @ 13080'

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	200 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	490 sx	15.6	1.18	284	0'	8 Hrs.
Coal							
Intermediate 1	Class A	940 sx	15.6	1.18	801	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	958 sx (Lead) 1568 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.33 (Lead), 1.83 (Tail)	3422	-500' Into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16996' MD, 6944' TVD (BHL); 6995' TVD (Deepest Point Drilled) Loggers TD (ft) 16950'

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6438'

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 - 06416 Farm name Kenneth E. Hamilton, et al Well number Hoskins Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6936' (TOP) TVD</u>	<u>7171' (TOP) MD</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2950 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 5996 mcfpd Oil 41 bpd NGL --- bpd Water 420 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)
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***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

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

Logging Company Allied Horizontal Wireline Services
Address 380 Bedford Rd. City North Huntingdon State PA Zip 15642

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

Stimulating Company US Well Services
Address 533 Industrial Park Dr. City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Kara Quackenbush Telephone 303-357-7233
Signature *Kara Quackenbush* Title Permitting Agent Date 8/30/2016

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FRACFOCUS Registry

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of _____

10/28/2016

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	29-Mar-16	16,580	16,748	60	Marcellus
2	14-Apr-16	16,381	16,549	60	Marcellus
3	15-Apr-16	16,181	16,349	60	Marcellus
4	15-Apr-16	15,982	16,150	60	Marcellus
5	15-Apr-16	15,783	15,951	60	Marcellus
6	15-Apr-16	15,583	15,751	60	Marcellus
7	16-Apr-16	15,384	15,552	60	Marcellus
8	16-Apr-16	15,184	15,353	60	Marcellus
9	16-Apr-16	14,985	15,153	60	Marcellus
10	16-Apr-16	14,786	14,954	60	Marcellus
11	17-Apr-16	14,586	14,755	60	Marcellus
12	17-Apr-16	14,387	14,555	60	Marcellus
13	17-Apr-16	14,188	14,356	60	Marcellus
14	17-Apr-16	13,988	14,156	60	Marcellus
15	18-Apr-16	13,789	13,957	60	Marcellus
16	18-Apr-16	13,590	13,758	60	Marcellus
17	18-Apr-16	13,390	13,558	60	Marcellus
18	19-Apr-16	13,191	13,359	60	Marcellus
19	19-Apr-16	12,992	13,160	60	Marcellus
20	19-Apr-16	12,792	12,960	60	Marcellus
21	19-Apr-16	12,593	12,761	60	Marcellus
22	19-Apr-16	12,393	12,562	60	Marcellus
23	20-Apr-16	12,194	12,362	60	Marcellus
24	20-Apr-16	11,995	12,163	60	Marcellus
25	20-Apr-16	11,795	11,964	60	Marcellus
26	20-Apr-16	11,596	11,764	60	Marcellus
27	20-Apr-16	11,397	11,565	60	Marcellus
28	20-Apr-16	11,197	11,365	60	Marcellus
29	21-Apr-16	10,998	11,166	60	Marcellus
30	22-Apr-16	10,799	10,967	60	Marcellus
31	22-Apr-16	10,599	10,767	60	Marcellus
32	22-Apr-16	10,400	10,568	60	Marcellus
33	22-Apr-16	10,201	10,369	60	Marcellus
34	22-Apr-16	10,001	10,169	60	Marcellus
35	23-Apr-16	9,802	9,970	60	Marcellus
36	23-Apr-16	9,603	9,771	60	Marcellus
37	23-Apr-16	9,403	9,571	60	Marcellus
38	23-Apr-16	9,204	9,372	60	Marcellus
39	23-Apr-16	9,004	9,173	60	Marcellus
40	24-Apr-16	8,805	8,973	60	Marcellus
41	24-Apr-16	8,606	8,774	60	Marcellus
42	24-Apr-16	8,406	8,575	60	Marcellus
43	24-Apr-16	8,207	8,375	60	Marcellus
44	24-Apr-16	8,008	8,176	60	Marcellus
45	25-Apr-16	7,808	7,976	60	Marcellus
46	25-Apr-16	7,609	7,777	60	Marcellus
47	25-Apr-16	7,410	7,578	60	Marcellus
48	25-Apr-16	7,210	7,378	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	14-Apr-16	69.1	7,537	0	5,364	315,050	8,055	N/A
2	14-Apr-16	72.6	7,718	5,465	5,540	314,800	8,045	N/A
3	15-Apr-16	73.0	7,623	5,500	5,475	314,520	8,054	N/A
4	15-Apr-16	71.0	7,526	5,600	5,693	314,600	8,013	N/A
5	15-Apr-16	71.1	7,575	5,518	5,794	315,950	7,983	N/A
6	15-Apr-16	72.3	7,534	5,579	5,432	313,775	7,972	N/A
7	16-Apr-16	71.9	7,592	5,472	5,894	313,200	7,954	N/A
8	16-Apr-16	71.0	7,570	5,604	5,819	314,250	7,943	N/A
9	16-Apr-16	72.0	7,508	5,668	5,450	314,050	7,929	N/A
10	16-Apr-16	72.5	7,687	5,758	5,218	311,550	7,880	N/A
11	17-Apr-16	72.0	7,562	5,611	5,887	315,580	7,903	N/A
12	17-Apr-16	74.0	7,807	5,958	5,836	313,850	7,909	N/A
13	17-Apr-16	70.3	7,707	5,654	4,849	313,050	8,295	N/A
14	17-Apr-16	71.6	7,597	5,747	5,715	315,190	7,866	N/A
15	18-Apr-16	72.2	7,493	5,304	5,382	311,500	7,848	N/A
16	18-Apr-16	72.0	7,479	5,536	5,643	313,000	7,841	N/A
17	18-Apr-16	71.8	7,412	5,554	5,751	311,800	7,828	N/A
18	19-Apr-16	71.7	7,348	5,479	5,736	312,500	7,816	N/A
19	19-Apr-16	72.1	7,377	5,765	5,107	304,700	7,798	N/A
20	19-Apr-16	72.3	7,216	5,418	5,239	312,100	7,782	N/A
21	19-Apr-16	71.5	7,061	5,915	5,550	314,050	7,777	N/A
22	19-Apr-16	74.2	7,129	5,751	5,726	313,750	7,767	N/A
23	20-Apr-16	72.5	7,155	5,915	5,565	314,100	7,754	N/A
24	20-Apr-16	72.3	7,200	5,554	5,018	313,900	7,739	N/A
25	20-Apr-16	71.2	7,186	5,482	4,946	312,600	7,726	N/A
26	20-Apr-16	70.5	7,209	6,219	5,103	313,840	7,716	N/A
27	20-Apr-16	71.0	7,080	5,658	5,093	314,020	7,705	N/A
28	20-Apr-16	72.4	7,153	5,482	4,585	316,000	7,689	N/A
29	21-Apr-16	72.3	7,116	5,550	5,765	315,950	7,677	N/A
30	22-Apr-16	72.6	7,084	5,908	5,397	315,900	7,666	N/A
31	22-Apr-16	73.0	7,373	5,751	4,907	314,350	7,666	N/A
32	22-Apr-16	71.7	7,088	5,343	5,314	314,400	7,637	N/A
33	22-Apr-16	71.2	6,955	5,432	5,339	315,320	7,635	N/A
34	22-Apr-16	72.2	6,930	5,736	5,497	314,000	7,613	N/A
35	23-Apr-16	72.2	7,009	5,912	4,753	316,000	7,579	N/A
36	23-Apr-16	71.3	7,006	5,908	4,867	313,250	7,617	N/A
37	23-Apr-16	73.4	7,175	6,076	5,472	298,200	7,675	N/A
38	23-Apr-16	72.1	6,961	5,690	5,622	312,300	7,717	N/A
39	23-Apr-16	72.6	6,919	5,958	4,653	271,900	7,574	N/A
40	24-Apr-16	70.8	7,486	6,012	4,960	304,100	7,613	N/A
41	24-Apr-16	73.0	6,904	5,475	5,221	312,960	7,524	N/A
42	24-Apr-16	73.0	6,938	5,801	5,890	316,000	7,522	N/A
43	24-Apr-16	74.8	6,921	5,618	5,254	315,500	7,498	N/A
44	24-Apr-16	74.9	6,749	5,665	5,375	315,100	7,488	N/A
45	25-Apr-16	74.5	7,103	5,908	5,579	279,700	8,245	N/A
46	25-Apr-16	73.1	6,779	5,457	5,397	314,700	7,460	N/A
47	25-Apr-16	73.4	6,758	5,579	5,229	314,400	7,456	N/A
48	25-Apr-16	74.0	6,820	6,280	4,889	277,650	7,488	N/A
AVG=		72.3	7,252	5,567	5,371	14,928,955	7,770	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	225'	N/A	225'	N/A
Shale	0	390	0	390
Sandstone/Siltstone/Shale	est. 390	750	est. 390	750
Sandstone	est. 750	840	est. 750	840
Coal	est. 840	870	est. 840	870
Sandstone	est. 870	1080	est. 870	1080
Siltstone	est. 1080	1140	est. 1080	1140
Sandstone	est. 1140	1470	est. 1140	1470
Shale	est. 1470	1650	est. 1470	1650
Sandstone	est. 1650	1800	est. 1650	1800
Shale	est. 1800	1890	est. 1800	1890
Sandstone	est. 1890	1950	est. 1890	1950
Shale	est. 1950	2010	est. 1950	2010
Sandstone	est. 2010	2122	est. 2010	2125
Big Lime	2122	2234	2125	2237
Big Injun	2234	2654	2237	2657
Gantz Sand	2654	2810	2657	2813
Fifty Foot Sandstone	2810	2886	2813	2889
Gordon	2886	3233	2889	3236
Fifth Sandstone	3233	3248	3236	3251
Bayard	3248	3598	3251	3601
Warren	3598	3989	3601	3992
Speechley	3989	4236	3992	4239
Baltown	4236	4705	4239	4708
Bradford	4705	5181	4708	5184
Benson	5181	5431	5184	5434
Alexander	5431	5634	5434	5637
Elk	5634	6157	5637	6160
Rhinestreet	6157	6533	6160	6539
Sycamore	6533	6717	6539	6751
Middlesex	6717	6852	6751	6966
Burkett	6852	6881	6966	7025
Tully	6881	6936	7025	7171
Marcellus	6936	NA	7171	NA

*Please note Antero determines 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:	4/14/2016
Job End Date:	4/25/2016
State:	West Virginia
County:	Doddridge
API Number:	47-017-06416-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Hoskins 1H
Latitude:	39.36773300
Longitude:	-80.74359700
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,995
Total Base Water Volume (gal):	15,635,804
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Antero Resources	Base Fluid					
Sand	U.S. Well Services, LLC	Proppant					
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid	Crystalline Silica, quartz	14808-60-7	100.00000	10.23430	
			Water	7732-18-5	87.50000	0.13744	
			Hydrogen Chloride	7647-01-0	18.00000	0.03283	
LGC-15	U.S. Well Services	Gelling Agents					
			Guar Gum	3000-30-0	50.00000	0.04772	
			Petroleum Distillates	64742-47-8	60.00000	0.04519	
			Suspending agent (solid)	14808-60-7	3.00000	0.00730	
			Surfactant	68439-51-0	3.00000	0.00286	
WFRA-405	U.S. Well Services	Friction Reducer					
			Water	7732-18-5	60.00000	0.03479	
			2-Propanoic acid, polymer with 29003-06-9 propenamide	29003-06-9	30.00000	0.01739	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01400	

SI-1100	J.S. Well Services	Scale Inhibitor	Ethoxylated alcohol blend	98002-97-1	4.00000	0.00232
			Water	7732-18-5	80.00000	0.01063
			Ethylene Glycol	107-21-1	25.00000	0.00375
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00157
			Potassium salt of diethylene triamine penta (methylene phosphonic acid) polymer	15827-60-8	7.50000	0.00134
			Phosphino carboxylic acid	71050-62-9	5.00000	0.00086
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	5.00000	0.00086
			Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5	2.00000	0.00035
K-BAC 1020	J.S. Well Services	Anti-Bacterial Agent	2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00437
			Deionized Water	7732-18-5	28.00000	0.00250
AP One	J.S. Well Services	Gel Breakers	Ammonium Persulfate	7727-54-0	100.00000	0.00193
AI-302	J.S. Well Services	Acid Corrosion Inhibitors	Water	7732-18-5	95.00000	0.00030
			2-Propyn-1-ol compound with methoxyane	38172-91-7	15.00000	0.00005

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.

* 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)

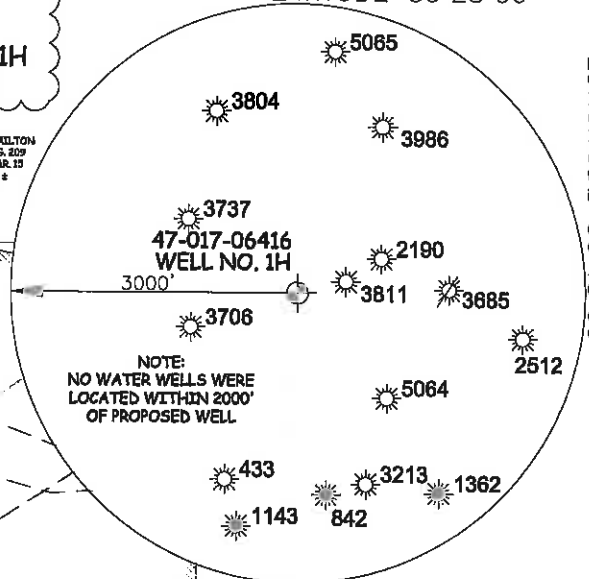
LATITUDE 39°22'30"

10,018'

1,703' TO BOTTOM HOLE
LATITUDE 39°25'00"

LONGITUDE 80°45'00"
LONGITUDE 80°42'30"

Antero Resources Corporation
Well No. Hoskins Unit 1H
A.P.I. 47-017-06416



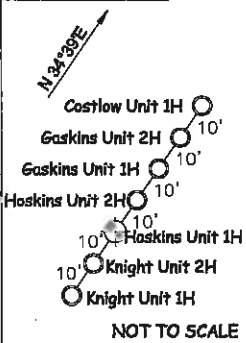
AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
 N: 318,450ft E: 1,648,369ft
 LAT: 39°22'03.54" LON: 80°44'37.56"
BOTTOM HOLE INFORMATION:
 N: 328,027ft E: 1,645,036ft
 LAT: 39°23'37.74" LON: 80°45'21.70"

WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. SYSTEM 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: 4,357,617m E: 522,087m
BOTTOM HOLE INFORMATION:
 N: 4,360,518m E: 521,023m

- NOTE**
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.

PAD LAYOUT



JOB # **12-144WA**
 DRAWING # **HOSKINS1HAD**
 SCALE **1" = 1000'**
 MINIMUM DEGREE OF ACCURACY **SUBMETER**
 PROVEN SOURCE OF ELEV. **SUBMETER MAPPING GRADE GPS**

LEGEND

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

DATE **08/10/16**
 OPERATOR'S WELL # **HOSKINS UNIT #1H**



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

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

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

API WELL # **47 - 017 - 06416**

STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL

(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION ORIG **1,171'** - AS BUILT **1,157'** WATERSHED **McELROY CREEK**

QUADRANGLE **SMITHBURG 7.5 (TH) SHIRLEY 7.5 (BH)** DISTRICT **GRANT** COUNTY **DODDRIDGE**

SURFACE OWNER **KENNETH E. HAMILTON ET AL** ACREAGE **90.35 ACRES +/-**

OIL & GAS ROYALTY OWNER **SILAS ASH; KENNETH HAMILTON ET AL; ANGELINA DUNCAN; BEULAH CAYTON ET AL; MAUDE SHRADER ET AL; DAVID E. BOYER; ROBERT T. GILLE ET AL; DOMINION APPALACHIAN DEVELOPMENT LLC; EDGAR HARTLEY**

LEASE ACREAGE **120 ACRES±; 80 ACRES±; 100 ACRES±; 123.5 ACRES±; 114.5 ACRES±; 102.48 ACRES±; 120.92 ACRES±; 167.29 ACRES±; 30 ACRES±**

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE

PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) **AS DRILLED** PLUG & ABANDON CLEAN OUT & REPLUG

TARGET FORMATION **MARCELLUS** ESTIMATED DEPTH **6,944' TVD 16,996' MD**

WELL OPERATOR **ANTERO RESOURCES CORP.** DESIGNATED AGENT **DIANNA STAMPER**

ADDRESS **1615 WYNKOOP STREET DENVER, CO 80202** ADDRESS **5400 D BIG TYLER ROAD CHARLESTON, WV 25313**

Office of Oil and Gas
 SEP 9 2016
 10/28/2016
 COUNTY NAME PERMIT

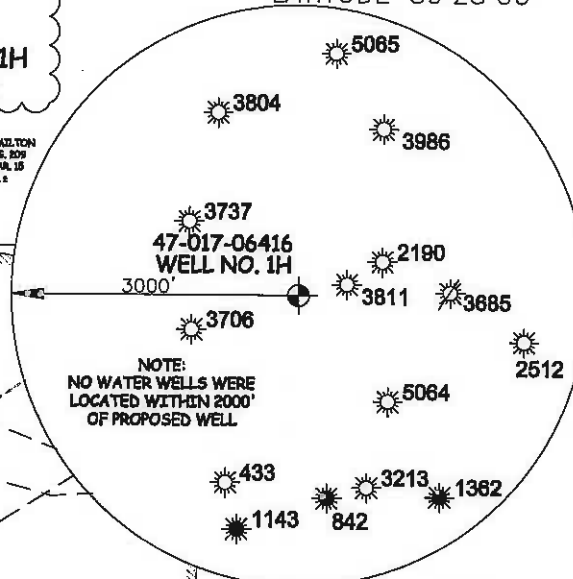
LATITUDE 39°22'30"

10,018'

1,703' TO BOTTOM HOLE
LATITUDE 39°25'00"

LONGITUDE 80°45'00"
LONGITUDE 80°42'30"

Antero Resources Corporation
Well No. Hoskins Unit 1H
A.P.I. 47-017-06416



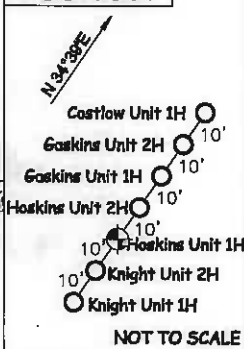
AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 318,450ft E: 1,648,369ft
LAT: 39°22'03.54" LON: 80°44'37.56"
BOTTOM HOLE INFORMATION:
N: 328,027ft E: 1,645,036ft
LAT: 39°23'37.74" LON: 80°45'21.70"
1H BOTTOM HOLE

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: 4,357,617m E: 522,087m
BOTTOM HOLE INFORMATION:
N: 4,360,518m E: 521,023m

- 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.

PAD LAYOUT



JOB # 12-144WA
DRAWING # HOSKINS1HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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

DATE 08/10/16
OPERATOR'S WELL # HOSKINS UNIT #1H



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API WELL # 47 - 017 - 06416
STATE COUNTY PERMIT
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(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X
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FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

10/28/2016

COUNTY NAME

PERMIT