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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 - 06260 County Doddridge District Grant  
Quad Smithburg 7.5' Pad Name Hamilton Pad Field/Pool Name \_\_\_\_\_  
Farm name Hamilton, Kenneth E. et al Well Number Gaskins 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 4,357,622m Easting 522,091m  
Landing Point of Curve Northing 4,357,375.46 Easting 521,946.99  
Bottom Hole Northing 4,354,882m Easting 522,949m

Elevation (ft) 1,157' 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 06/25/2013 Date drilling commenced 08/24/2013 Date drilling ceased 10/01/2013  
Date completion activities began 10/12/2013 Date completion activities ceased 12/28/2013  
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 206' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 611' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft 821' Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) No

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API 47-017 - 06260 Farm name Hamilton, Kenneth E. et al Well number Gaskins 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"	365'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,588'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	16,342'	New	20#; P-110	N/A	Yes
Tubing		2 3/8"	7,166'		4.7#; N-80	N/A	
Packer type and depth set	N/A						

Comment Details \*First attempt to cement conductor (332 sacks) unsuccessful. Top-off job was performed (48 sacks), which was successful in bringing returns to surface.

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	380 sx*	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	430 sx	15.6	1.18	254	0'	8 Hrs.
Coal							
Intermediate 1	Class A	932 sx	15.6	1.18	811	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,011 sx (Lead); 1,607 sx (Tail)	14.5 (Lead); 15.2 (Tail)	1.3 (Lead); 1.86 (Tail)	3,266	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16,342' MD; 6,981' TVD (BHL); 7,027' TVD (Deepest Point Drilled) Loggers TD (ft) 16,289'

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

Plug back procedure N/A

Kick off depth (ft) 6,611'

\*\*This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Costlow Unit 1H, API #47-017-06194). Please reference the wireline logs submitted with Form WR-35 for the Costlow Unit 1H. 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 RA; Chemical



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PRODUCING FORMATION(S)	DEPTHS	
Marcellus	6,924' (top) TVD	7,171' (top) 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 4,449 mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water 80 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 <sub>2</sub> S, ETC)
	0		0		
<b>* PLEASE SEE ATTACHED EXHIBIT 3</b>					

Please insert additional pages as applicable.

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

Logging Company Nine Energy Service  
Address 125 Museum Rd. City Washington State PA Zip 15301

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

Stimulating Company GoFrac  
Address 62787 Philips Rd. City Cambridge State OH Zip 43725

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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API 47-017-06260 Farm Name Hamilton, Kenneth E. et al Well Number Gaskins Unit 1H

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	12-Oct-13	16,087	16,254	60	Marcellus
2	7-Nov-13	15,890	16,056	60	Marcellus
3	8-Nov-13	15,693	15,859	60	Marcellus
4	8-Nov-13	15,495	15,662	60	Marcellus
5	8-Nov-13	15,298	15,464	60	Marcellus
6	8-Nov-13	15,101	15,267	60	Marcellus
7	9-Nov-13	14,903	15,070	60	Marcellus
8	9-Nov-13	14,706	14,873	60	Marcellus
9	9-Nov-13	14,509	14,675	60	Marcellus
10	10-Nov-13	14,312	14,478	60	Marcellus
11	11-Nov-13	14,114	14,281	60	Marcellus
12	11-Nov-13	13,917	14,083	60	Marcellus
13	11-Nov-13	13,720	13,886	60	Marcellus
14	12-Nov-13	13,522	13,689	60	Marcellus
15	12-Nov-13	13,325	13,492	60	Marcellus
16	12-Nov-13	13,128	13,294	60	Marcellus
17	12-Nov-13	12,931	13,097	60	Marcellus
18	12-Nov-13	12,733	12,900	60	Marcellus
19	13-Nov-13	12,536	12,702	60	Marcellus
20	13-Nov-13	12,339	12,505	60	Marcellus
21	13-Nov-13	12,142	12,308	60	Marcellus
22	13-Nov-13	11,944	12,111	60	Marcellus
23	13-Nov-13	11,747	11,913	60	Marcellus
24	14-Nov-13	11,550	11,716	60	Marcellus
25	14-Nov-13	11,352	11,519	60	Marcellus
26	18-Nov-13	11,155	11,322	60	Marcellus
27	19-Nov-13	10,958	11,124	60	Marcellus
28	19-Nov-13	10,761	10,927	60	Marcellus
29	19-Nov-13	10,563	10,730	60	Marcellus
30	20-Nov-13	10,366	10,532	60	Marcellus
31	20-Nov-13	10,169	10,335	60	Marcellus
32	20-Nov-13	9,971	10,138	60	Marcellus
33	20-Nov-13	9,774	9,941	60	Marcellus
34	20-Nov-13	9,577	9,743	60	Marcellus
35	21-Nov-13	9,380	9,546	60	Marcellus
36	21-Nov-13	9,182	9,349	60	Marcellus
37	21-Nov-13	8,985	9,151	60	Marcellus
38	21-Nov-13	8,788	8,954	60	Marcellus
39	22-Nov-13	8,590	8,757	60	Marcellus
40	22-Nov-13	8,393	8,560	60	Marcellus
41	22-Nov-13	8,196	8,362	60	Marcellus
42	22-Nov-13	7,999	8,165	60	Marcellus
43	22-Nov-13	7,801	7,968	60	Marcellus
44	23-Nov-13	7,604	7,770	60	Marcellus
45	24-Nov-13	7,407	7,573	60	Marcellus
46	24-Nov-13	7,210	7,376	60	Marcellus

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API 47-017-06260 Farm Name Hamilton, Kenneth E. et al Well Number Gaskins 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	7-Nov-13	60.3	7,977	5,596	4,084	225,755	6,087	N/A
2	7-Nov-13	57.6	7,795	6,770	4,473	224,155	6,086	N/A
3	8-Nov-13	51.5	7,582	6,211	3,769	224,690	6,103	N/A
4	8-Nov-13	65.2	8,062	4,687	3,631	225,655	6,050	N/A
5	8-Nov-13	59.8	8,107	6,712	4,215	204,204	7,000	N/A
6	8-Nov-13	57.3	7,876	5,908	4,124	222,200	6,019	N/A
7	9-Nov-13	53.2	7,717	6,051	3,699	223,570	5,996	N/A
8	9-Nov-13	53.0	8,230	6,992	5,131	202,030	6,539	N/A
9	9-Nov-13	57.0	8,033	7,300	5,077	129,195	5,465	N/A
10	10-Nov-13	44.8	8,518	6,652	4,139	42,940	6,425	N/A
11	11-Nov-13	54.4	8,113	7,512	4,427	38,955	6,398	N/A
12	11-Nov-13	59.5	8,094	7,005	4,326	123,930	6,421	N/A
13	11-Nov-13	62.8	7,625	6,372	3,970	223,790	5,963	N/A
14	12-Nov-13	67.7	7,989	5,895	4,222	224,360	5,960	N/A
15	12-Nov-13	64.5	7,984	6,110	4,223	221,380	5,952	N/A
16	12-Nov-13	64.2	7,928	6,150	3,822	224,600	5,720	N/A
17	12-Nov-13	66.6	8,027	5,801	5,281	224,611	6,027	N/A
18	12-Nov-13	64.7	8,019	5,985	5,764	212,630	5,807	N/A
19	13-Nov-13	68.3	8,009	5,924	4,959	223,700	5,830	N/A
20	13-Nov-13	63.3	9,043	5,473	4,030	224,680	5,561	N/A
21	13-Nov-13	64.0	7,664	5,709	3,582	224,510	5,819	N/A
22	13-Nov-13	64.3	7,559	5,851	4,204	224,620	5,796	N/A
23	13-Nov-13	64.1	7,737	5,653	4,043	224,340	5,794	N/A
24	14-Nov-13	67.0	7,820	5,975	4,271	223,320	5,775	N/A
25	14-Nov-13	65.8	7,656	5,707	5,065	224,570	5,699	N/A
26	18-Nov-13	67.4	7,660	5,879	4,385	225,000	5,742	N/A
27	19-Nov-13	46.9	7,833	5,469	5,508	22,042	5,918	N/A
28	19-Nov-13	61.1	7,774	5,775	4,820	108,645	6,096	N/A
29	19-Nov-13	64.4	7,045	5,868	4,315	224,280	5,686	N/A
30	20-Nov-13	63.1	7,384	5,625	4,599	223,680	5,675	N/A
31	20-Nov-13	63.7	7,308	5,640	4,391	224,990	5,670	N/A
32	20-Nov-13	60.6	7,690	5,529	4,680	150,340	5,962	N/A
33	20-Nov-13	65.6	7,616	5,682	4,479	224,485	5,697	N/A
34	20-Nov-13	65.5	7,621	5,642	4,484	166,890	6,068	N/A
35	21-Nov-13	68.5	7,565	5,595	4,472	224,670	6,036	N/A
36	21-Nov-13	61.2	7,657	5,850	5,280	200,280	6,036	N/A
37	21-Nov-13	60.4	7,726	5,806	4,688	86,807	5,369	N/A
38	21-Nov-13	63.4	7,271	5,951	5,100	106,720	5,578	N/A
39	22-Nov-13	65.7	7,212	5,871	4,432	224,980	5,570	N/A
40	22-Nov-13	64.7	7,469	5,864	4,628	227,300	5,777	N/A
41	22-Nov-13	68.4	7,434	5,569	5,034	226,750	5,547	N/A
42	22-Nov-13	54.5	8,647	5,672	7,269	51,925	5,320	N/A
43	22-Nov-13	67.2	7,652	5,656	4,741	208,690	5,571	N/A
44	23-Nov-13	36.6	8,482	5,412	6,117	3,480	5,495	N/A
45	24-Nov-13	48.7	8,426	5,492	5,487	31,960	4,666	N/A
46	24-Nov-13	69.8	7,334	5,278	3,811	201,521	5,769	N/A
AVG=		<b>61.1</b>	<b>7,825</b>	<b>5,938</b>	<b>4,592</b>	<b>8,353,825</b>	<b>269,540</b>	<b>TOTAL</b>

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API 47-017-06260 Farm Name Hamilton, Kenneth E. et al Well Number Gaskins 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	206'	N/A	206'	N/A
Shale/ Sandstone	0	551	0	551
Sandstone	est. 551	611	est. 551	611
Shale/Siltstone	est. 611	731	est. 611	731
Sandstone	est. 731	821	est. 731	821
Coal	est. 821	851	est. 821	851
Sandstone	est. 851	941	est. 851	941
Sandstone/ Limestone	est. 941	971	est. 941	971
Sandstone	est. 971	1,061	est. 971	1,061
Siltstone/ Limestone	est. 1061	1,121	est. 1061	1,121
Sandstone	est. 1121	1,211	est. 1121	1,211
Siltstone/ Shale	est. 1211	1,271	est. 1211	1,271
Sandstone	est. 1271	1,361	est. 1271	1,361
Shale	est. 1361	1,391	est. 1361	1,391
Sandstone	est. 1391	1,451	est. 1391	1,451
Shale	est. 1451	1,631	est. 1451	1,631
Sandstone	est. 1631	1,781	est. 1631	1,781
Shale	est. 1781	1,871	est. 1781	1,871
Sandstone	est. 1871	1,931	est. 1871	1,931
Shale	est. 1931	1,991	est. 1931	1,991
Sandstone	est. 1991	2,156	est. 1991	2,156
Big Lime	2,156	2,272	2,156	2,272
Big Injun	2,272	2,703	2,272	2,703
Gantz Sand	2,703	2,846	2,703	2,846
Fifty Foot Sandstone	2,846	2,920	2,846	2,920
Gordon	2,920	3,262	2,920	3,262
Fifth Sandstone	3,262	3,280	3,262	3,280
Bayard	3,280	3,650	3,280	3,650
Warren	3,650	4,040	3,650	4,040
Speechley	4,040	4,292	4,040	4,292
Baltown	4,292	4,764	4,292	4,764
Bradford	4,764	5,234	4,764	5,235
Benson	5,234	5,498	5,235	5,502
Alexander	5,498	5,690	5,502	5,704
Elk	5,690	6,209	5,704	6,270
Rhinestreet	6,209	6,525	6,270	6,618
Sycamore	6,525	6,707	6,618	6,825
Middlesex	6,707	6,841	6,825	7,012
Burkett	6,841	6,869	7,012	7,058
Tully	6,869	6,924	7,058	7,171
Marcellus	6,924	NA	7,171	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:	11/7/2013
Job End Date:	11/24/2013
State:	West Virginia
County:	Doddridge
API Number:	47-017-06260-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Gaskins Unit 1H
Longitude:	-80.74372800
Latitude:	39.36770300
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,027
Total Base Water Volume (gal):	0
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
Freshwater	Antero Resources	Water	Water	7732-18-5	100.00000	90.70898	
40/70 White	US Silica	Proppant	Sand	14808-60-7	100.00000	4.91440	
20/40 White	US Silica	Proppant	Sand	14808-60-7	100.00000	2.92370	
100 Mesh	US Silica	Proppant	Sand	14808-60-7	100.00000	1.26770	
CFS40	PQS	Guar Gel	Petroleum Distillate	64742-47-8	55.00000	0.04677	
			Guar Gum	9000-30-0	50.00000	0.04252	
			Clay	1302-78-9	5.00000	0.00425	
			Surfactant	154518-36-2	1.00000	0.00085	
Plexslick 953	Chemplex	Friction Reducer	Water	7732-18-5	35.00000	0.02152	
			Polyacrylamide-co-acrylic acid	9003-06-9	32.00000	0.01967	
			Hydrotreated Petroleum Distillate	64742-47-8	30.00000	0.01844	
			Alcohol Ethoxylate Surfactants	Proprietary	8.00000	0.00492	



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Hydrochloric Acid 10-15%	Acid	Hydrochloric Acid	7647-01-0	15.00000	0.03424
Plexicide 15G	Biocide	Water	7732-18-5	90.00000	0.02285
		Glutaraldehyde	111-30-8	14.00000	0.00355
		Ethanol	64-17-5	3.00000	0.00076
		Alkyl Dimethyl Benzyl Ammonium Chloride	68424-85-1	3.00000	0.00076
Plexaid 673	Scale Inhibitor	Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00076
		Water	7732-18-5	85.00000	0.01335
		Methyl Alcohol	67-56-1	25.00000	0.00393
		Sodium Salt of Phosphonodimethylated Diamine	Proprietary	5.00000	0.00079
Sodium Persulfate	Breaker	Sodium Persulfate	7775-27-1	100.00000	0.00123
Plexhib 256	Corrosion	Methyl Alcohol	67-56-1	70.00000	0.00049
		Alcohol Ethoxylate Surfactants	Proprietary	30.00000	0.00021
		thiourea-formaldehyde copolymer	89527-49-1	30.00000	0.00021
		n-olefins	Proprietary	10.00000	0.00007
Plexbreak 145	Non-emulsifier	Propargyl Alcohol	107-19-7	8.00000	0.00006
		Water	732-18-5	66.00000	0.00052
		Methyl Alcohol	67-56-1	15.00000	0.00012
		Ethylene Glycol Monobutyl Ether	111-76-2	15.00000	0.00012
		Cocamide Diethanolamine Salt	68603-42-9	10.00000	0.00008
Ferriplex 66	Iron Control	Diethanolamine	111-42-2	5.00000	0.00004
		Acetic Acid	64-19-7	50.00000	0.00022
		Water	7732-18-5	35.00000	0.00016
		Citric Acid	77-92-9	30.00000	0.00013

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"

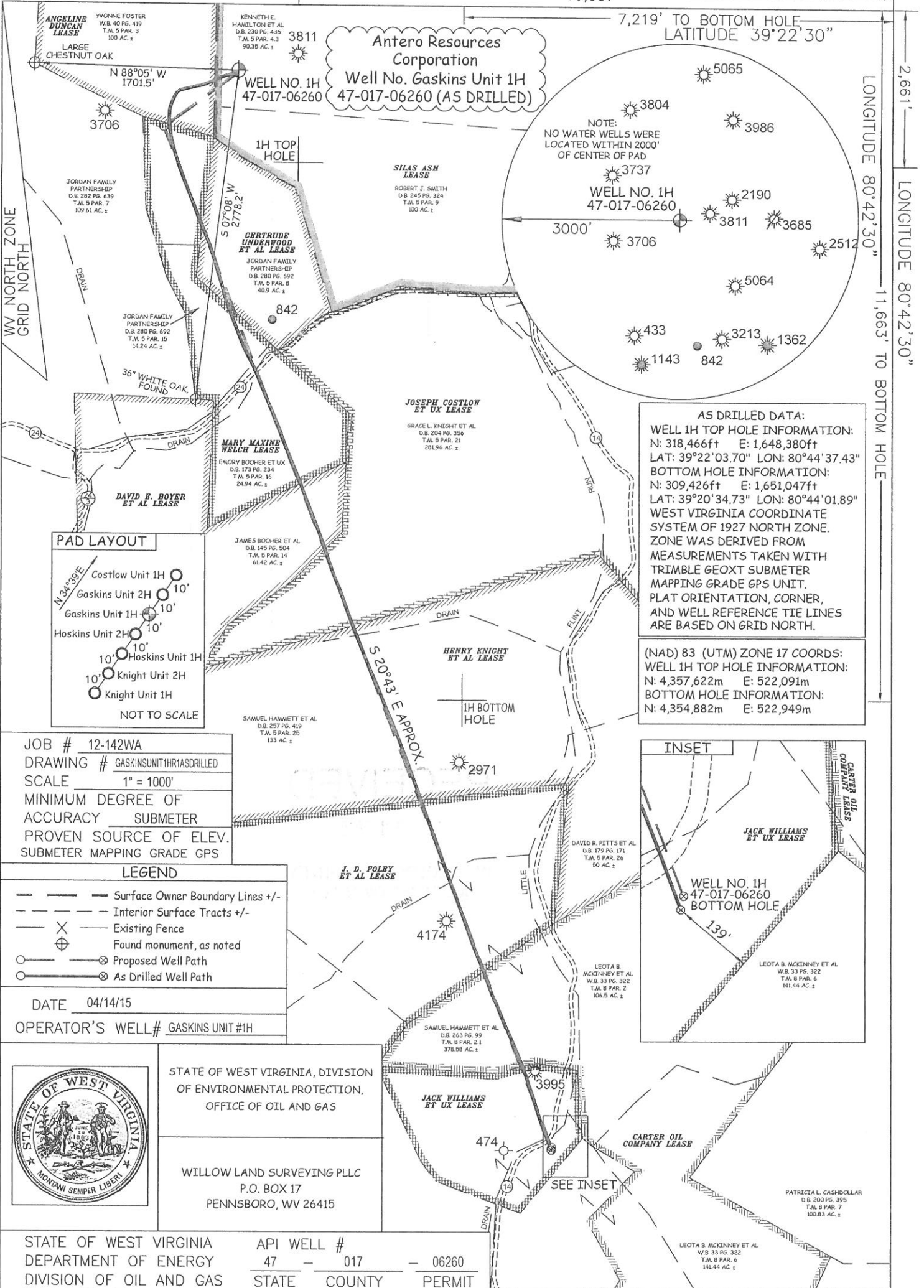
10,007'

7,219' TO BOTTOM HOLE  
LATITUDE 39°22'30"

LONGITUDE 80°42'30"

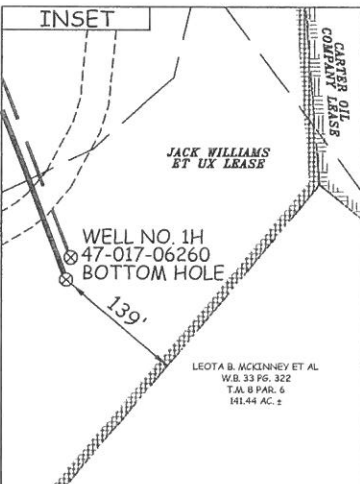
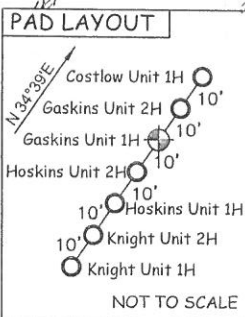
2,661' LONGITUDE 80°42'30"

11,663' TO BOTTOM HOLE



**AS DRILLED DATA:**  
**WELL 1H TOP HOLE INFORMATION:**  
 N: 318,466ft E: 1,648,380ft  
 LAT: 39°22'03.70" LON: 80°44'37.43"  
**BOTTOM HOLE INFORMATION:**  
 N: 309,426ft E: 1,651,047ft  
 LAT: 39°20'34.73" LON: 80°44'01.89"  
 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: 4,357,622m E: 522,091m  
**BOTTOM HOLE INFORMATION:**  
 N: 4,354,882m E: 522,949m



JOB # 12-142WA  
 DRAWING # GASKINSUNIT1H/ASDRILLED  
 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 04/14/15  
 OPERATOR'S WELL # GASKINS UNIT #1H

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

WILLOW LAND SURVEYING PLLC  
 P.O. BOX 17  
 PENNSBORO, WV 26415

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

API WELL # 47 - 017 - 06260

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

(IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,171' ORIGINAL - 1,157' AS DRILLED WATERSHED MCELROY CREEK QUADRANGLE SMITHBURG 7.5' DISTRICT GRANT COUNTY DODDRIDGE

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

OIL & GAS ROYALTY OWNER SILAS ASH; ANGELINE DUNCAN; MARY M. WELCH; G. UNDERWOOD ET AL; DAVID E. BOYER ET AL; J. COSTLOW ET UX; HENRY KNIGHT ET AL; J.D. FOLEY ET AL; CARTER OIL CO.; J. WILLIAMS ET UX

LEASE ACREAGE 291 AC±; 100 AC±; 52 AC±; 30.24 AC±; 61.87 AC±; 350 AC±; 219 AC±; 224.75 AC±; 33.125 AC±

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 6,981' TVD 16,342' MD

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

- NOTE**
- 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.
  - TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
  - AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
  - 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.
  - WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

COUNTY NAME

PERMIT