

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

API 47-017-06855 County Doddridge District West Union  
 Quad West Union 7.5' Pad Name Alexander Pad Field/Pool Name -----  
 Farm name Antero Resources Corporation Well Number Edgar Unit 2H  
 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 4354079m Easting 519363m  
 Landing Point of Curve Northing 4354274m Easting 519604m  
 Bottom Hole Northing 4357315m Easting 518391m

Elevation (ft) 1181' 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 9/19/2017 Date drilling commenced 1/18/2018 Date drilling ceased 6/12/2018  
 Date completion activities began 11/8/2018 Date completion activities ceased 12/29/2018  
 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 None Identified Open mine(s) (Y/N) depths No  
 Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths No  
 Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No  
 Is coal being mined in area (Y/N) No

Reviewed by:

WR-35  
Rev. 8/23/13

API 47-017 - 06855 Farm name Antero Resources Corporation Well number Edgar Unit 2H

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"	105'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	585.1'	New	54#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2574.7'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	18136'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7063.8'		4.7#, P-110		
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	204 sx	15.6	1.18	241	0'	8 Hrs.
Surface	Class A	480 sx	15.6	1.21	581	0'	8 Hrs.
Coal							
Intermediate 1	Class A	870 sx	15.6	1.21	1053	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	850 sx (Lead) 1635 sx (Tail)	14(Lead), 15.2 (Tail)	1.45 (Lead), 1.94(Tail)	4404	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 18156' MD, 6862' TVD (BHL), 6900' (Deepest Point Drilled) Loggers TD (ft) 18156' MD

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

Plug back procedure N/A

Kick off depth (ft) 6296'

\*\* This is a subsequent Well. Antero only runs wireline logs on one well on a multi-well pad (Scorpio Unit 2H API#47-017-06861). Please reference the wireline logs submitted with Form WR-35 for Scorpio 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 N/A

API 47- 017 - 06855 Farm name Antero Resources Corporation Well number Edgar Unit 2H

PERFORATION RECORD

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

**\*PLEASE 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)
-----------	-------------------	---------------------	------------------------------	------------------------------	------------	--------------------------	------------------------	----------------------------------

**\*PLEASE SEE ATTACHED EXHIBIT 2**


Please insert additional pages as applicable.

WR-35  
Rev. 8/23/13

API 47- 017 - 06855 Farm name Antero Resources Corporation Well number Edgar Unit 2H

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6831' (TOP)	TVD	7138' (TOP) 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 11723 mcfpd Oil 114 bpd NGL --- bpd Water 482 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

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

**\*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 Allied Horizontal Wireline Services  
Address 381 Colonial Manor Rd City North Huntington State PA Zip 15642

Cementing Company Halliburton  
Address 121 Champion Way City Canonsburg State PA Zip 15317

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

Please insert additional pages as applicable.

Completed by Karin Cox Telephone 303-357-6820  
Signature *Karin Cox* Title Permitting Agent Date 4/30/2019

API 47-017-06855 Farm Name Matthew W. Alexander &amp; Linda Marie Muhly Well Number Edgar Unit 2H

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	11/8/2018	17933.4	18032.8	60	Marcellus
2	11/9/2018	17734.32	17902.22	60	Marcellus
3	11/10/2018	17535.24	17703.14	60	Marcellus
4	11/10/2018	17336.16	17504.06	60	Marcellus
5	11/11/2018	17137.08	17304.98	60	Marcellus
6	11/11/2018	16938	17105.9	60	Marcellus
7	11/12/2018	16738.92	16906.82	60	Marcellus
8	11/12/2018	16539.84	16707.74	60	Marcellus
9	11/12/2018	16340.76	16508.66	60	Marcellus
10	11/12/2018	16141.68	16309.58	60	Marcellus
11	11/13/2018	15942.6	16110.5	60	Marcellus
12	11/13/2018	15743.52	15911.42	60	Marcellus
13	11/13/2018	15544	15712.09	60	Marcellus
14	11/14/2018	15005.85	15175	60	Marcellus
15	11/14/2018	14805.27	14974.42	60	Marcellus
16	11/14/2018	14604.69	14773.84	60	Marcellus
17	11/15/2018	14404.11	14573.26	60	Marcellus
18	11/15/2018	14203.53	14372.68	60	Marcellus
19	11/15/2018	14002.95	14172.1	60	Marcellus
20	11/15/2018	13802.37	13971.52	60	Marcellus
21	11/16/2018	13601.79	13770.94	60	Marcellus
22	11/16/2018	13401.21	13570.36	60	Marcellus
23	11/16/2018	13200.63	13369.78	60	Marcellus
24	11/17/2018	13000.05	13169.2	60	Marcellus
25	11/17/2018	12799.47	12968.62	60	Marcellus
26	11/17/2018	12598.89	12768.04	60	Marcellus
27	11/17/2018	12398.31	12567.46	60	Marcellus
28	11/18/2018	12197.73	12366.88	60	Marcellus
29	11/18/2018	11997.15	12166.3	60	Marcellus
30	11/18/2018	11796.57	11965.72	60	Marcellus
31	11/19/2018	11595.99	11765.14	60	Marcellus
32	11/19/2018	11395.41	11564.56	60	Marcellus
33	11/19/2018	11194.83	11363.98	60	Marcellus
34	11/19/2018	10994.25	11163.4	60	Marcellus
35	11/20/2018	10793.67	10962.82	60	Marcellus
36	11/20/2018	10593.09	10762.24	60	Marcellus
37	11/21/2018	10392.51	10561.66	60	Marcellus
38	11/21/2018	10191.93	10361.08	60	Marcellus
39	11/22/2018	9991.35	10160.5	60	Marcellus
40	11/22/2018	9790.77	9959.92	60	Marcellus
41	11/22/2018	9590.19	9759.34	60	Marcellus
42	11/22/2018	9389.61	9558.76	60	Marcellus
43	11/23/2018	9189.03	9358.18	60	Marcellus
44	11/23/2018	8988.45	9157.6	60	Marcellus
45	11/23/2018	8787.87	8957.02	60	Marcellus
46	11/23/2018	8587.29	8756.44	60	Marcellus
47	11/24/2018	8386.71	8555.86	60	Marcellus
48	11/24/2018	8186.13	8355.28	60	Marcellus
49	11/24/2018	7985.55	8154.7	60	Marcellus
50	11/24/2018	7784.97	7954.12	60	Marcellus
51	11/25/2018	7584.39	7753.54	60	Marcellus
52	11/25/2018	7383.81	7552.96	60	Marcellus
53	11/25/2018	7183.23	7352.38	60	Marcellus

API 47-017-06855 Farm Name Matthew W. Alexander & Linda Marie Muhly Well Number Edgar Unit 2H								
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	11/8/2018	74.7	8022	6701	3662	273860	6458	N/A
2	11/9/2018	66.7	8512	6018	3140	407760	10352	N/A
3	11/10/2018	61.6	8340	5623	4381	407940	12824	N/A
4	11/10/2018	62.9	7804	5834	3334	400940	8912	N/A
5	11/11/2018	74.02	8291	5466	4299	411220	8862	N/A
6	11/11/2018	76.7	8406	5998	5145	409140	8413	N/A
7	11/12/2018	78.9	8134	5032	4682	416560	8540	N/A
8	11/12/2018	75.44	7927	5331	4206	408780	8858	N/A
9	11/12/2018	74.79	7860	5744	3846	407680	8316	N/A
10	11/12/2018	74.95	8122	5930	3816	400840	8517	N/A
11	11/13/2018	68.19	8051	5578	3388	399520	11165	N/A
12	11/13/2018	63.17	8428	6091	3752	331280	11483	N/A
13	11/13/2018	69.62	7936	6357	3459	400140	8816	N/A
14	11/14/2018	73.36	7700	5212	3536	408860	8531	N/A
15	11/14/2018	72.57	7721	5235	4130	398600	8438	N/A
16	11/14/2018	78.01	7821	5617	4338	407580	8308	N/A
17	11/15/2018	77.54	7892	5823	4481	416400	8246	N/A
18	11/15/2018	77.93	7632	5240	4676	405880	8106	N/A
19	11/15/2018	77.21	7748	5484	4471	409020	8287	N/A
20	11/15/2018	77.24	7506	5677	4840	413160	8420	N/A
21	11/16/2018	75.51	7663	6245	4547	400460	8306	N/A
22	11/16/2018	72.99	7880	5428	3665	393460	9576	N/A
23	11/16/2018	76.97	7854	5369	4140	410540	8560	N/A
24	11/17/2018	77.7	7796	5570	3665	400180	8008	N/A
25	11/17/2018	71.58	7715	5488	3981	403200	8112	N/A
26	11/17/2018	73.8	7630	5842	3353	403440	8186	N/A
27	11/17/2018	74.9	7499	6044	3504	392960	7964	N/A
28	11/18/2018	76.41	7671	5794	3535	401260	8000	N/A
29	11/18/2018	71.44	8061	5869	3334	405020	9170	N/A
30	11/18/2018	72.3	7905	5605	3436	411420	9534	N/A
31	11/19/2018	63.74	8114	6606	3589	414620	10750	N/A
32	11/19/2018	73.35	7347	5531	3495	406480	8262	N/A
33	11/19/2018	73.66	7666	6094	3425	408860	8310	N/A
34	11/19/2018	66.34	7387	6210	3424	411860	10118	N/A
35	11/20/2018	70.59	7500	5588	3915	319370	7482	N/A
36	11/20/2018	61.48	7629	6167	3246	409440	11631	N/A
37	11/21/2018	74.3	7287	6505	3882	410660	8225	N/A
38	11/21/2018	74.71	7190	6089	3412	401600	7997	N/A
39	11/22/2018	74.92	7165	6009	3780	406740	8007	N/A
40	11/22/2018	73.5	7326	5198	3910	401700	8215	N/A
41	11/22/2018	74.2	7120	5633	3435	406040	8668	N/A
42	11/22/2018	67.74	7244	5726	3555	323080	7622	N/A
43	11/23/2018	74.78	7063	5496	3645	398920	7908	N/A
44	11/23/2018	74.9	6998	5696	3570	401620	7838	N/A
45	11/23/2018	72.8	7136	6020	3540	404660	8639	N/A
46	11/23/2018	74.81	7062	6326	3616	395000	7802	N/A
47	11/24/2018	72.8	7336	5623	3515	402820	8734	N/A
48	11/24/2018	74.9	6885	5407	3816	400340	8103	N/A
49	11/24/2018	74.4	6832	5863	3831	411820	8074	N/A
50	11/24/2018	75.46	6988	5802	3657	404680	9148	N/A
51	11/25/2018	75.47	6788	6004	3887	399580	7759	N/A
52	11/25/2018	75	6789	5897	4017	404340	7837	N/A
53	11/25/2018	75	6473	5394	4168	405160	7800	N/A
	AVG=	<b>73</b>	<b>7,601</b>	<b>5,776</b>	<b>3,832</b>	<b>21,106,490</b>	<b>460,197</b>	TOTAL

API 47-017-06855 Farm Name Matthew W. Alexander &amp; Linda Marie Muhly Well Number Edgar Unit 2H

**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Shaly Sandstone	0	155	0	155
Sandy Shale	est 155	215	est 155	215
Shaly Sandstone	est 215	255	est 215	255
Sandstone	est 255	395	est 255	395
Shaly Sandstone	est 395	505	est 395	505
Sandstone	est 505	575	est 505	575
Carbonaceous shale	est 575	615	est 575	615
Sandstone	est 615	765	est 615	765
Shaly sandstone tr coal	est 765	1,025	est 765	1,025
Shaly Siltstone	est 1025	1,305	est 1025	1,305
Sandstone	est 1305	1,455	est 1305	1,455
Sandy siltstone	est 1455	1,855	est 1455	1,855
Sandstone	est 1855	2,087	est 1855	2,088
Big Lime	2,087	2,661	2,088	2,689
Fifty Foot Sandstone	2,661	2,872	2,689	2,903
Gordon	2,872	3,081	2,903	3,116
Fifth Sandstone	3,081	3,138	3,116	3,174
Bayard	3,138	3,920	3,174	3,969
Speechley	3,920	4,226	3,969	4,281
Balltown	4,226	4,714	4,281	4,778
Bradford	4,714	5,166	4,778	5,238
Benson	5,166	5,445	5,238	5,522
Alexander	5,445	6,448	5,522	6,557
Sycamore	6,448	6,621	6,557	6,765
Middlesex	6,621	6,755	6,765	6,970
Burkett	6,755	6,787	6,970	7,032
Tully	6,787	6,831	7,032	7,138
Marcellus	6,831	NA	7,138	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.

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/8/2018
Job End Date:	11/25/2018
State:	West Virginia
County:	Doddridge
API Number:	47-017-06855-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Edgar 2H
Latitude:	39.33583100
Longitude:	-80.77549400
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,899
Total Base Water Volume (gal):	19,992,279
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					
			Water	7732-18-5	100.00000	88.57063	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.14505	



HYDROCHLORIC ACID	Halliburton	Solvent							
						Listed Below			
EXCELERATE PS-2	Halliburton	Friction Reducer							
						Listed Below			
FDP-S1296-17	Halliburton	Corrosion Inhibitor							
						Listed Below			
SAND PREMIUM WHITE-30/50 BULK	Halliburton	Proppant							
						Listed Below			
SP BREAKER	Halliburton	Breaker							
						Listed Below			
SCALECHEK LP-70	Halliburton	Scale Inhibitor							
						Listed Below			
MC B-8614	Halliburton	Biocide							
						Listed Below			
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant							
						Listed Below			

WG-36 GELLING AGENT	Halliburton	Gelling Agent											
					Listed Below								
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant											
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.													
			Crystalline silica, quartz	14808-60-7		100.00000		11.22535					
			Guar gum	9000-30-0		100.00000		0.02441					
			Inorganic salt	Proprietary		30.00000		0.01966					
			Acrylamide acrylate polymer	Proprietary		30.00000		0.01966					Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Hydrotreated light petroleum distillate	64742-47-8		30.00000		0.01966					
			Hydrochloric acid	7647-01-0		15.00000		0.01338					
			Ethylene glycol	107-21-1		60.00000		0.00887					
			Glutaraldehyde	111-30-8		30.00000		0.00276					
			Telmer	Proprietary		10.00000		0.00148					
			Sodium persulfate	7775-27-1		100.00000		0.00072					
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1		5.00000		0.00046					
			Methanol	67-56-1		100.00000		0.00017					
			Sodium polyacrylate	9003-04-7		1.00000		0.00015					
			Ethanol	64-17-5		1.00000		0.00009					
			Modified thiourea polymer	Proprietary		30.00000		0.00005					
			Phosphoric acid	7664-38-2		0.10000		0.00001					
			Ethoxylated alcohols	Proprietary		5.00000		0.00001					

			Propargyl alcohol	107-19-7	5.00000	0.00001		
			Acrylic acid	79-10-7	0.01000	0.00000		
			Sodium sulfate	7757-82-6	0.10000	0.00000		

\* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water  
 \*\* Information is based on the maximum potential for concentration and thus the total may be over 100%  
 \*\*\* If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)

10,422' to Bottom Hole

7,408 to Top Hole

LATITUDE 39 - 22 - 30

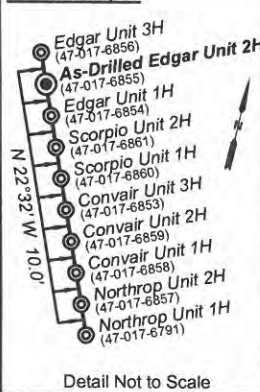
LONGITUDE 80 - 45 - 00

14,163' to Top Hole

### Antero Resources Well No. Edgar Unit 2H As-Drilled Plat

Antero Resources Corporation

#### Wellhead Layout



(\*) Denotes Location of Well on United States Topographical Maps

Wilbur F. Robinson, et ux Lease  
Tyler County  
Doddridge County  
Warren C. Putman 227/722 147.77 Ac.  
500' Buffer

Bearing	Dist.
L1 N 25°32' W	1,059.7
L2 N 43°08' W	813.8'
L3 N 63°10' W	691.9'
L4 S 38°28' W	1,052.3'

**Notes:**  
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
Well No. Edgar Unit 2H Top Hole coordinates are  
N: 306,987.98' Latitude: 39°20'09.00"  
E: 1,639,235.80' Longitude: 80°46'31.77"  
Bottom Hole coordinates are  
N: 317,662.60' Latitude: 39°21'54.07"  
E: 1,636,222.21' Longitude: 80°47'12.07"  
**UTM Zone 17, NAD 1983**  
Top Hole Coordinates Bottom Hole Coordinates  
N: 4,354,078.559m N: 4,357,315.269m  
E: 519,363.187m E: 518,390.838m  
Plat orientation and corner and well references are based upon the grid north meridian.  
Well location references are based upon the magnetic meridian.

Top Hole Coordinates, 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.

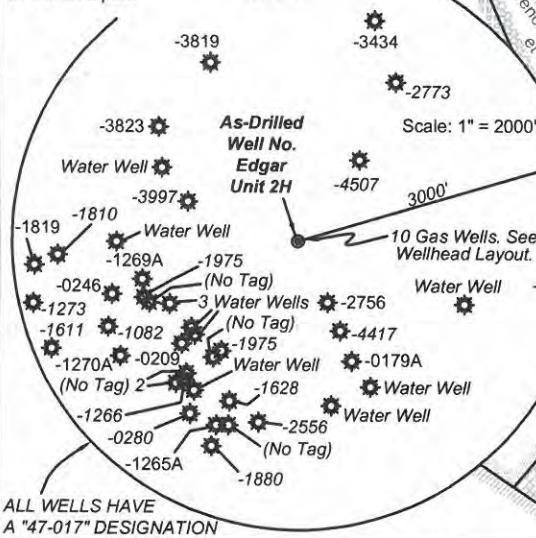
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

*Bradley D. Miller*

Bradley D. Miller, P.S. 2167



Note: 9 water wells 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.



Edgar Unit 2H Bottom Hole

Bottom Hole 7.5' Spot

James M & Nick Petrovich 232/686 70 Ac.

Edwin P. & Dorothy P. Bode Lease

Jason J. Boggs 256/125 66.87 Acres

Mark Ziegenfuss 292/465 99.94 Ac.

Eric K. Hardman, et al 259/128 92.63 Ac.

Ronnie D. Smith, et al 253/696 23.07 Ac.

Clarence W. Mutschelknaus, et al Lease

L. Ray Ash & Delsie M. Ash Lease

Ronnie & Thomas Smith 259/232 31 Ac.

James A. Smith WB 36/396 26.35 Ac.

James A. Smith 266/94

Donley Shultz 270/415 245.38 Ac.

Bonnie J. Underwood Leases

Clarence W. Mutschelknaus

Clifford H. & Susan M. Kraft 194/667 71.5 Ac.

H. Ross, Jr. & Carol S. Swiger 260/612 48.36 Ac.

H. Ross Swiger, et ux Lease

Joseph Freeman, et ux Lease

Larry Williams Lease 260/226 38.65 Ac.

Allen Kendall Jones 167/68 54 Ac.

Walter J. & Loretta Fox 206/555 6.95 Ac.

Larry Williams 260/226 38.65 Ac.

Alice Marie Simunick Lease

Joseph R. Corathers, et ux Lease

Freeman, et ux Lease

Joseph R. Corathers, et ux Lease

Freeman, et ux Lease

Joseph R. Corathers, et ux Lease

Freeman, et ux Lease

Joseph R. Corathers, et ux Lease

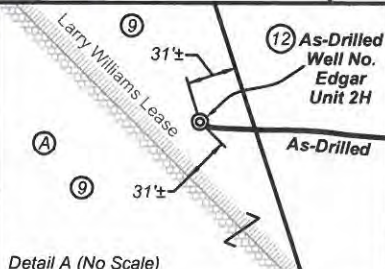
Freeman, et ux Lease

Joseph R. Corathers, et ux Lease

Freeman, et ux Lease

Joseph R. Corathers, et ux Lease

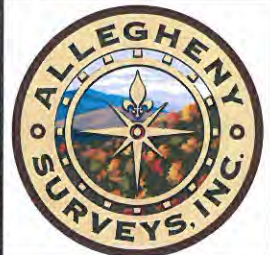
- Legend**
- Proposed gas well
  - Found corner, as noted
  - Creek or Drain
  - Existing Road
  - Surface boundary (approx.)
  - Surface tracts (approx.)
  - Well (as noted)



TM-Par	Bk/Pg	Acres	Surface Owner(s)
1	4-8	282/181	26.57
2	4-9	282/181	7.16
3	4-10	282/181	7.91
4	4-2	282/181	0.90
5	4-17.1	299/145	20.44
6	4-17	256/621	19.70
7	4-11	195/237	7.19
8	4-24	248/254	35.34
9	4-32	241/412	43.94
10	4-34.4	320/629	4.50
11	4-32.1	349/322	20.00
12	4-30	211/302	30.50

**Lease Table**

- Charles Williams by Randy Williams, A.I.F. Lease
- Theda Dolores Price Davis Lease
- Delbert Ray Ash Lease
- Gary Lynn McMillan and Pamela S. McMillan Lease
- Pauline Arndt, et vir Lease
- Sherry Holmes Lease
- Joseph R. Corathers, et ux Lease



FILE NO: 40-30-WU-14  
DRAWING NO: Edgar 2H Well Plat  
SCALE: 1" = 1500'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WV DOT, Harrisville, WV

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

DATE: October 8 20 18  
Operator's Well No. Edgar Unit 2H  
API WELL NO  
47 - 017 - 06855  
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Drilled Grade - 1181' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: West Union

DISTRICT: West Union COUNTY: Doddridge

SURFACE OWNER: Matthew W. Alexander & Linda Marie Muhly, Clarence W. Mutschelknaus, et al; Edwin P. & Dorothy P. Bode ACREAGE: 43.94 88.65; 7.19

ROYALTY OWNER: Silas Spencer, et ux; H. Ross Swiger, et ux; Joseph Freeman, et ux; Larry Williams LEASE NO: ACREAGE: 48.36; 60; 115; 72

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 ESTIMATED DEPTH: 6,862' TVD 18,156' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System

ADDRESS: 1615 Wynkoop Street Denver, CO 80202 ADDRESS: 5400 D Big Tyler Road Charleston, WV 25313