

John C. [Signature]
12/19/18

WR-35
Rev. 8/23/13

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

API 47-017-06716 County Doddridge District Central
Quad West Union 7.5' Pad Name Balli Pad Field/Pool Name -----
Farm name Jeffrey K. Jones Sr. et al Well Number Ridge 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 4350343m Easting 513463m
Landing Point of Curve Northing 4350185.12m Easting 512831.97m
Bottom Hole Northing 4347815m Easting 513622m

Elevation (ft) 1135.5' 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 3/13/2015 Date drilling commenced 1/28/2016 Date drilling ceased 5/4/2016
Date completion activities began 9/24/2017 Date completion activities ceased 4/21/2018
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 107', 192' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 737' 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

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API 47- 017 - 06716 Farm name Jeffrey K. Jones Sr. et al Well number Ridge 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"	97'	New	94#, K-55	N/A	Y
Surface	17-1/2"	13-3/8"	371'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2479'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4*8-1/2"	5-1/2"	15652'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7132'		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	300 sx	15.6	1.18	354	0'	8 Hrs.
Surface	Class A	435 sx	15.6	1.18	513	0'	8 Hrs.
Coal							
Intermediate 1	Class A	915 sx	15.6	1.18	1080	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	996sx (Lead) 1400 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.30 (Lead), 1.83 (Tail)	3657	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 15652' MD, 6706' TVD (BHL), 6706' (Deepest Point Drilled) Loggers TD (ft) 15652' MD

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

Plug back procedure N/A

Kick off depth (ft) 6616'

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 _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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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)
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***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)
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***PLEASE SEE ATTACHED EXHIBIT 2**

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Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6554' (TOP)	TVD	7163' (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 3976.84 mcfpd Oil 78.75 bpd NGL --- bpd Water 25.41 bpd GAS MEASURED BY Estimated Orifice Pilot

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

***PLEASE SEE ATTACHED EXHIBIT 3**

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Please insert additional pages as applicable.

Drilling Contractor Frontier Drilling 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 C&J Energy Services
Address 1650 Hackers Creek City Lane Jew State WV Zip 26378

Stimulating Company CalFrac Well Services
Address 717 17th Street, Suite 1445 City Denver State CO Zip 80202

Please insert additional pages as applicable.

Completed by Karla Cox Telephone 303-357-6820
Signature  Title Permitting Agent Date 9/7/2018

Submission of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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API 47-017-06716 Farm Name Jeffrey K. Jones Sr. et al Well Number Ridge Unit 1H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	9/24/2017	15382	15550	48	Marcellus
2	11/1/2017	15183	15351	48	Marcellus
3	11/1/2017	14983	15151	48	Marcellus
4	11/2/2017	14784	14952	48	Marcellus
5	11/2/2017	14585	14753	48	Marcellus
6	11/3/2017	14386	14554	48	Marcellus
7	11/4/2017	14187	14355	48	Marcellus
8	11/4/2017	13987	14155	48	Marcellus
9	11/5/2017	13788	13956	48	Marcellus
10	11/5/2017	13589	13757	48	Marcellus
11	11/6/2017	13390	13558	48	Marcellus
12	11/6/2017	13191	13359	48	Marcellus
13	11/7/2017	12991	13159	48	Marcellus
14	11/8/2017	12792	12960	48	Marcellus
15	11/8/2017	12593	12761	48	Marcellus
16	11/9/2017	12394	12562	48	Marcellus
17	11/10/2017	12195	12363	48	Marcellus
18	11/10/2017	11995	12163	48	Marcellus
19	11/11/2017	11796	11964	48	Marcellus
20	11/11/2017	11597	11765	48	Marcellus
21	11/12/2017	11398	11566	48	Marcellus
22	11/12/2017	11199	11367	48	Marcellus
23	11/13/2017	10999	11167	48	Marcellus
24	11/14/2017	10800	10968	48	Marcellus
25	11/14/2017	10601	10769	48	Marcellus
26	11/15/2017	10402	10570	48	Marcellus
27	11/15/2017	10203	10371	48	Marcellus
28	11/16/2017	10003	10171	48	Marcellus
29	11/16/2017	9804	9972	48	Marcellus
30	11/17/2017	9605	9773	48	Marcellus
31	11/18/2017	9406	9574	48	Marcellus
32	11/18/2017	9207	9375	48	Marcellus
33	11/19/2017	9007	9175	48	Marcellus
34	11/19/2017	8808	8976	48	Marcellus
35	11/19/2017	8609	8777	48	Marcellus
36	11/20/2017	8410	8578	48	Marcellus
37	11/20/2017	8211	8379	48	Marcellus
38	11/20/2017	8011	8179	48	Marcellus
39	11/21/2017	7812	7980	48	Marcellus
40	11/21/2017	7613	7781	48	Marcellus
41	11/22/2017	7414	7582	48	Marcellus
42	11/22/2017	7215	7383	48	Marcellus

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API 47-017-06716 Farm Name Jeffrey K. Jones Sr. et al Well Number Ridge 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	9/24/2017	73.9	7399	7699	4520	506200	10100	N/A
2	11/1/2017	67.9	7213	5902	4012	505100	9936	N/A
3	11/1/2017	74.5	7454	5896	4018	506100	9915	N/A
4	11/2/2017	71.3	7640	6034	5389	509400	9680	N/A
5	11/2/2017	71.7	7869	6020	4267	505300	10985	N/A
6	11/3/2017	67.1	7434	5975	3910	505800	10185	N/A
7	11/4/2017	72.1	7564	7156	3983	505600	9897	N/A
8	11/4/2017	72.3	7458	6020	4089	507150	9966	N/A
9	11/5/2017	71.7	7351	6295	4029	507750	9897	N/A
10	11/5/2017	73.9	7597	6098	4340	506250	9785	N/A
11	11/6/2017	70.4	7654	5961	3750	506250	10801	N/A
12	11/6/2017	69.3	7501	5954	4320	506100	9970	N/A
13	11/7/2017	66.1	6975	6127	4520	505850	9872	N/A
14	11/8/2017	70.3	7040	5950	4116	505150	9823	N/A
15	11/8/2017	76	7321	6535	4236	505650	9913	N/A
16	11/9/2017	70.3	7298	6308	3955	505000	9765	N/A
17	11/10/2017	75	7581	6723	4302	505850	9913	N/A
18	11/10/2017	73	7633	6130	4182	505850	9708	N/A
19	11/11/2017	71.9	7604	6414	4267	506000	9862	N/A
20	11/11/2017	73.5	7524	6130	4265	505150	9704	N/A
21	11/12/2017	74.9	7568	6463	4243	512550	10094	N/A
22	11/12/2017	75.1	7646	6172	4278	505800	9626	N/A
23	11/13/2017	71.4	7389	5905	4320	505650	9801	N/A
24	11/14/2017	78.4	7346	6422	4380	504850	9698	N/A
25	11/14/2017	74.8	7060	5996	3790	504450	9741	N/A
26	11/15/2017	70.7	7119	7042	3734	503700	9560	N/A
27	11/15/2017	77.3	7239	6354	3992	503950	9679	N/A
28	11/16/2017	70.2	7651	6932	3944	507250	11766	N/A
29	11/16/2017	73.1	7263	6050	4189	504800	9639	N/A
30	11/17/2017	73.5	7065	6035	4007	505750	9684	N/A
31	11/18/2017	75.8	7218	6433	4007	505350	9788	N/A
32	11/18/2017	75.1	7185	7055	4841	504730	9739	N/A
33	11/19/2017	71.7	6995	6251	4811	505500	10505	N/A
34	11/19/2017	65.6	6615	6120	4751	506600	9905	N/A
35	11/19/2017	73.3	7326	6265	5393	504600	12049	N/A
36	11/20/2017	75.2	6920	6429	4022	511050	9633	N/A
37	11/20/2017	74.3	7205	6127	4221	504950	9846	N/A
38	11/20/2017	70.3	7296	6849	5419	509950	12609	N/A
39	11/21/2017	70.2	7055	6350	5062	506360	9555	N/A
40	11/21/2017	73.4	7051	7084	4822	505150	9547	N/A
41	11/22/2017	72.1	7049	7216	3816	505150	9713	N/A
42	11/22/2017	75.4	6781	7187	3771	511700	9492	N/A
	AVG=	72.5	7,313	6,382	4,292	21,261,340	421,346	TOTAL

API 47-017-06716 Farm Name <u>Jeffrey K. Jones Sr. et al</u> Well Number <u>Ridge Unit 1H</u>				
EXHIBIT 3				
LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Freshwater	107'	N/A	107'	N/A
Freshwater	192'	N/A	192'	N/A
Siltstone/Sandstone	0	147	0	147
Sandstone	est. 147	205	est. 147	205
Sandstone/Siltstone/Shale	est. 205	327	est. 205	327
Sandstone/Shale/Trace Coal	est. 327	447	est. 327	447
Sandstone	est. 447	547	est. 447	547
Sandstone/Shale	est. 547	607	est. 547	607
Sandstone	est. 607	687	est. 607	687
Siltstone	est. 687	727	est. 687	727
Shale	est. 727	767	est. 727	767
Limestone	est. 767	787	est. 767	787
Siltstone	est. 787	907	est. 787	907
Shale	est. 907	1,147	est. 907	1,147
Shale/Tr Coal	est. 1147	1,167	est. 1147	1,167
Shale	est. 1167	1,207	est. 1167	1,207
Sandstone	est. 1207	1,227	est. 1207	1,227
Shale	est. 1227	1,245	est. 1227	1,245
Sandstone	est. 1245	1,307	est. 1245	1,307
Shale/Siltstone	est. 1307	1,367	est. 1307	1,367
Limestone	est. 1367	1,387	est. 1367	1,387
Sandstone	est. 1387	1,447	est. 1387	1,447
Siltstone	est. 1447	1,489	est. 1447	1,489
Sandstone/Shale/Siltstone	est. 1489	2,015	est. 1489	2,034
Big Lime	2,015	2,626	2,034	2,654
Fifty Foot Sandstone	2,626	2,698	2,654	2,726
Gordon	2,698	3,097	2,726	3,142
Fifth Sandstone	3,097	3,136	3,142	3,184
Bayard	3,136	3,732	3,184	3,844
Speechley	3,732	4,116	3,844	4,271
Balltown	4,116	4,530	4,271	4,738
Bradford	4,530	5,005	4,738	5,274
Benson	5,005	5,267	5,274	5,580
Alexander	5,267	6,208	5,580	6,668
Sycamore	6,208	6,368	6,668	6,861
Middlesex	6,368	6,489	6,861	7,032
Burkett	6,489	6,516	7,032	7,080
Tully	6,516	6,554	7,080	7,163
Marcellus	6,554	NA	7,163	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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DAP-902	CWS	Scale Inhibitor					
				Listed Below			
DWP-641	CWS	Friction Reducer					
				Listed Below			
DWP-111	CWS	Gel Slurry					
				Listed Below			
Calbreak 5501	CWS	Breaker					
				Listed Below			
Hydrochloric Acid	CWS	Clean Perforations					
				Listed Below			
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			
CI-9100G	CWS	Corrosion Inhibitor					
				Listed Below			
DAP-103	CWS	Iron Control					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					

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				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica (Quartz)	14808-60-7	1.00000	12.24931	
			Calcite	471-34-1	0.01000	0.08890	
			Hydrochloric acid	7647-01-0	0.37000	0.04680	
			Distillates (petroleum), hydrotreated middle	64742-46-7	0.60000	0.03778	
			Guar gum	9000-30-0	0.60000	0.03778	
			Illite	12173-60-3	0.01000	0.03356	
			Polymer	26100-47-0	0.45000	0.03161	
			Distillates (petroleum), hydrotreated light	64742-47-8	0.30000	0.02107	
			Biotite	1302-27-8	0.00100	0.01225	
			Apatite	64476-38-6	0.00100	0.01225	
			Goethite	1310-14-1	0.00100	0.01225	
			Ammonium Persulfate	64742-47-8	1.00000	0.01045	
			Ammonium chloride	12125-02-9	0.11000	0.00773	
			Polyethylene glycol mixture	25322-68-3	0.54500	0.00614	
			2-Propenoic acid, homopolymer, sodium salt	9003-04-7	0.40000	0.00603	
			Ilmenite	98072-94-7	0.00100	0.00336	
			Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	0.05000	0.00315	
	RECEIVED Office of Oil and Gas		Sorbitan monooleate	1338-43-8	0.04000	0.00281	
	SEP 10 2018		2,2-Dibromo-3-Nitropropionamide	10222-01-2	0.20000	0.00225	
	WV Department of Environmental Protection		Polyethylene glycol monooleate	9004-96-0	0.03000	0.00211	
			Vinylidene chloride-methyl acrylate copolymer	69418-26-4	0.20000	0.00209	

			1,2-Propanediol	57-55-6	0.10000	0.00151	
			Sorbitol tetraoleate	61723-83-9	0.02000	0.00140	
			Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	0.01500	0.00094	
			Amines, tallow alkyl, ethoxylated	61791-26-2	0.01000	0.00070	
			Sodium bromide	7647-15-6	0.04000	0.00045	
			Citric acid	77-92-9	0.60000	0.00042	
			Alkyloxypolyethyleneoxy ethanol	84133-50-6	0.00500	0.00035	
			Dibromoacetonitrile	3252-43-5	0.03000	0.00034	
			Acrylamide	79-06-1	0.00100	0.00007	
			Ethylene glycol	107-21-1	0.40000	0.00003	
			Isopropanol	67-63-0	0.05000	0.00001	
			Ethoxylated alcohols	Proprietary	0.10000	0.00001	Proprietary CAS
			Diethylene glycol (mono) methyl ether	34590-94-8	0.20000	0.00001	
			Cinnamaldehyde	104-55-2	0.10000	0.00001	
			Formic Acid	64-18-6	0.10000	0.00001	
			Tar bases, quinolone derivs	68513-87-1	0.01000	0.00001	
			Tar bases, quinolone derivs, benzyl chloride- quatenized	72480-70-7	0.10000	0.00001	
			Diethylene glycol	111-46-6	0.01000	0.00001	

* 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)

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LATITUDE 39°20'00"

3.025'

2,520' TO BOTTOM HOLE

LATITUDE 39°17'30"

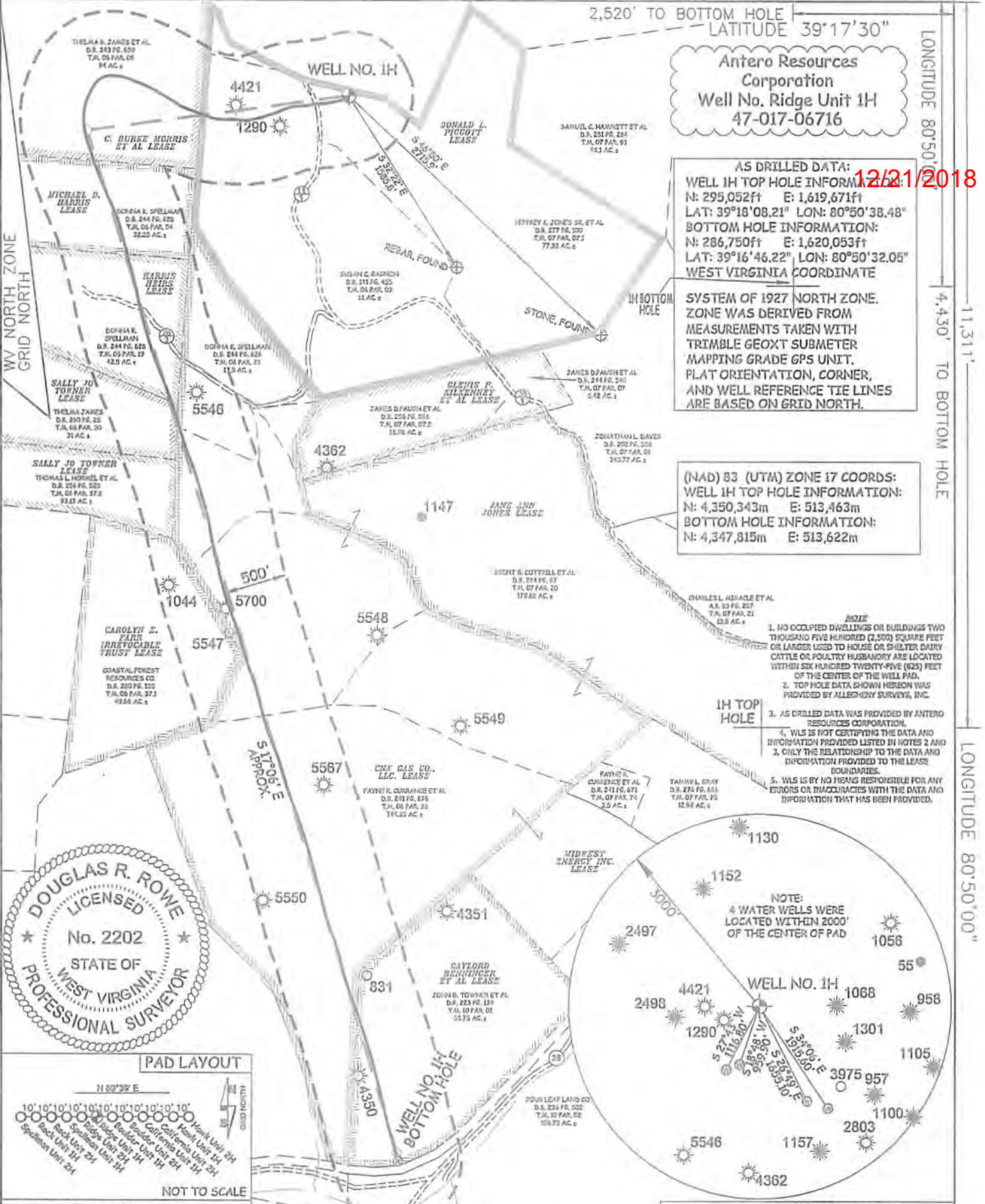
Antero Resources Corporation
Well No. Ridge Unit 1H
47-017-06716

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 295,052ft E: 1,619,671ft
LAT: 39°18'08.21" LON: 80°50'38.48"
BOTTOM HOLE INFORMATION:
N: 286,750ft E: 1,620,053ft
LAT: 39°16'46.22" LON: 80°50'32.05"
WEST VIRGINIA COORDINATE

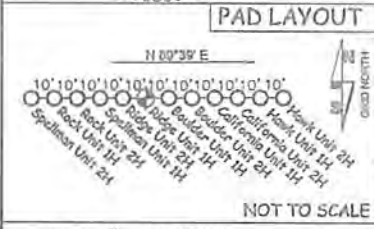
SYSTEM OF 1927 NORTH ZONE.
ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,350,343m E: 513,463m
BOTTOM HOLE INFORMATION:
N: 4,347,815m E: 513,622m

- 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. WAS 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. WAS IN NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



DOUGLAS R. ROWE
LICENSED
No. 2202
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR



JOB # 14-120WA
DRAWING # RIDGEHAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

LEGEND
--- Surface Owner Boundary Lines +/-
--- Interior Surface Tracts +/-
--- Proposed Well Path
--- As Drilled Well Path

DR
DOUGLAS R. ROWE P.S. 2202
DATE 07/17/18
OPERATOR'S WELL# RIDGE UNIT #1H
API WELL # 47 - 017 - 06716
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 1,135.5' AS BUILT WATERSHED HEADWATERS MIDDLE ISLAND CREEK
QUADRANGLE WEST UNION 7.5' DISTRICT CENTRAL COUNTY DODDRIDGE
SURFACE OWNER JEFFREY K. JONES SR. ET AL ACREAGE 77.32 ACRES +/-
OIL & GAS ROYALTY OWNER DONALD L. PIGGOTT; C. BURKE MORRIS ET AL; LEASE ACREAGE 81 ACRES +/-; 94 ACRES +/-;
MICHAEL D. HARRIS; HARRIS HEIRS; SALLY JO TOWNER; CNX GAS CO., L.L.C.; GAYLORD BENNINGER ET AL 32.25 ACRES +/-; 187 ACRES +/-; 31 ACRES +/-; 230.04 ACRES +/-; 57 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
TARGET FORMATION MARCELLUS PLUG & ABANDON CLEAN OUT & REPLUG
WELL OPERATOR ANTERO RESOURCES CORP. ESTIMATED DEPTH 8,706' TVD 15,652' MD
ADDRESS 1615 WYNKOOP STREET DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 5400 D BIG TYLER ROAD
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

12/21/2018

WV Department of
Environmental Protection

SEP 10 2018

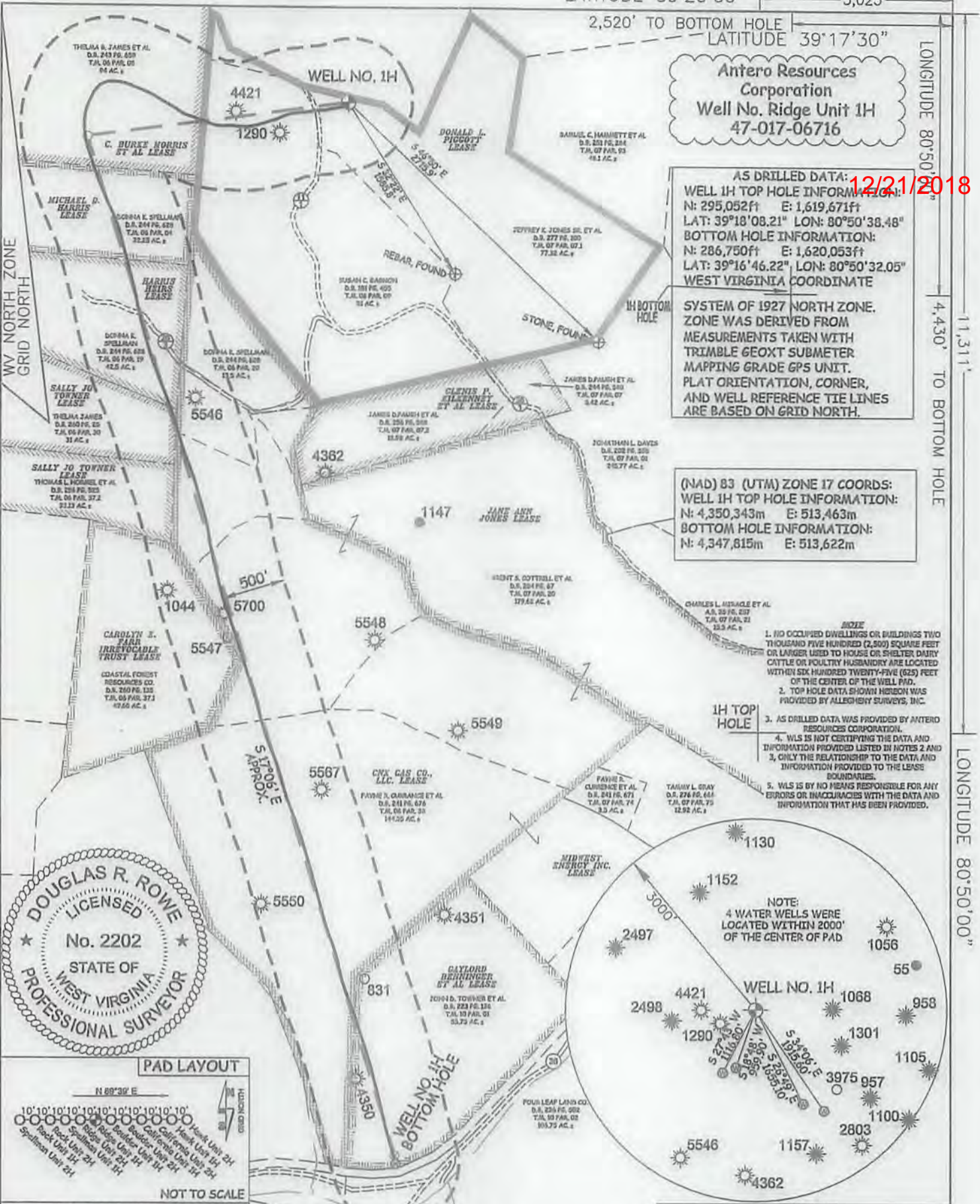
RECEIVED
Office of Oil and Gas

LATITUDE 39°20'00" 3,025'

2,520' TO BOTTOM HOLE LATITUDE 39°17'30"

LONGITUDE 80°50'00" 4,430' TO BOTTOM HOLE 1,311'

LONGITUDE 80°50'00"



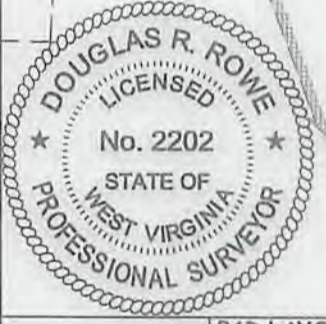
Antero Resources Corporation
Well No. Ridge Unit 1H
47-017-06716

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
 N: 295,052ft E: 1,619,671ft
 LAT: 39°18'08.21" LON: 80°50'38.48"
BOTTOM HOLE INFORMATION:
 N: 286,750ft E: 1,620,053ft
 LAT: 39°16'46.22" LON: 80°50'32.05"
WEST VIRGINIA COORDINATE

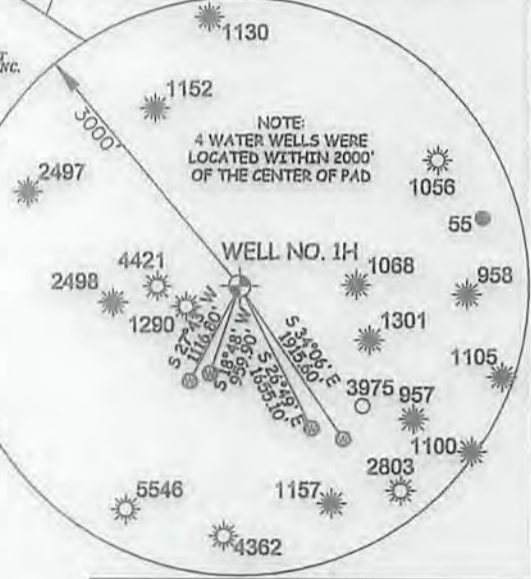
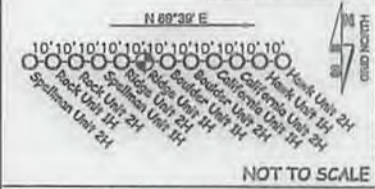
SYSTEM OF 1927 NORTH ZONE.
 ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
 N: 4,350,343m E: 513,463m
BOTTOM HOLE INFORMATION:
 N: 4,347,815m E: 513,622m

- 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 # 14-120WA
 DRAWING # RIDGEHAD
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO
 WEST VIRGINIA 26415

LEGEND
 - - - Surface Owner Boundary Lines +/-
 - - - Interior Surface Tracts +/-
 ○ Proposed Well Path
 ⊙ As Drilled Well Path

DOUGLAS R. ROWE P.S. 2202
 DATE 07/17/18
 OPERATOR'S WELL# RIDGE UNIT #1H
 API WELL # 47 - 017 - 06716
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
 WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1,135.5' AS BUILT WATERSHED HEADWATERS MIDDLE ISLAND CREEK
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 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 (SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,708' TVD 15,852' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME PERMIT

FORM MM-2

DEVELOPER'S CO 00503

CHARLESTON, WV 25313

ADDRESS 1812 MILLCOFF STREET

ADDRESS 2400 D BIG TREE ROAD

MEET OPERATOR УИТЕКО БЕЗОПАСЕЗ КОМП

DESIGNATED AGENT DIAMIA STANGEV - CI CORPORATION STANGEN

TABCEL FORMATION MARSETTE

ESTIMATED DEPTH 8'000, TWD 10'000, MD

(SPECIFY) V8 DRILLED

TYPE OF ABANDON OPEN OUT & BEING

TYPE OF OLD FORMATION BEFORDIAN NEW FORMATION OTHER PHYSICAL CHANGE IN MEET

PROPOSED WORK: DRIFT CONCRETE DRIFT DEEPER BEDROCK FRACTURE OR STIMULATE

WICHARD D. HARRIS, HARRIS HEIRS, ET AL TO TOMMYE, SIX EWS CO, INC; DALTON BEYINGBE ET AL

012 & 042 COLADY OWNERS DOMYDT BIGGOTTI, C. BURKE MORRIS ET AL;

SUBFACE OWNERS FEEBLEY K, JONES 2B, ET AL

LOCATION: ELEVATION 11322, V8 DRIFT WATERSHED HEADWATERS MIDDLE RIVER CREEK

(IF "C&S") PRODUCTION X STORAGE DEEP SHALLOW X

MEET TYPE: OIL GAS X FLUID INJECTION WASTE DISPOSAL

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

SUBMETER MAPPING GRADE C&S

PROVEN SOURCE OF ELEVATION ACCURACY SUBMETER

MINIMUM DEGREE OF SCALE 1" = 1000'

DRAWING # RIDGEMOUNT

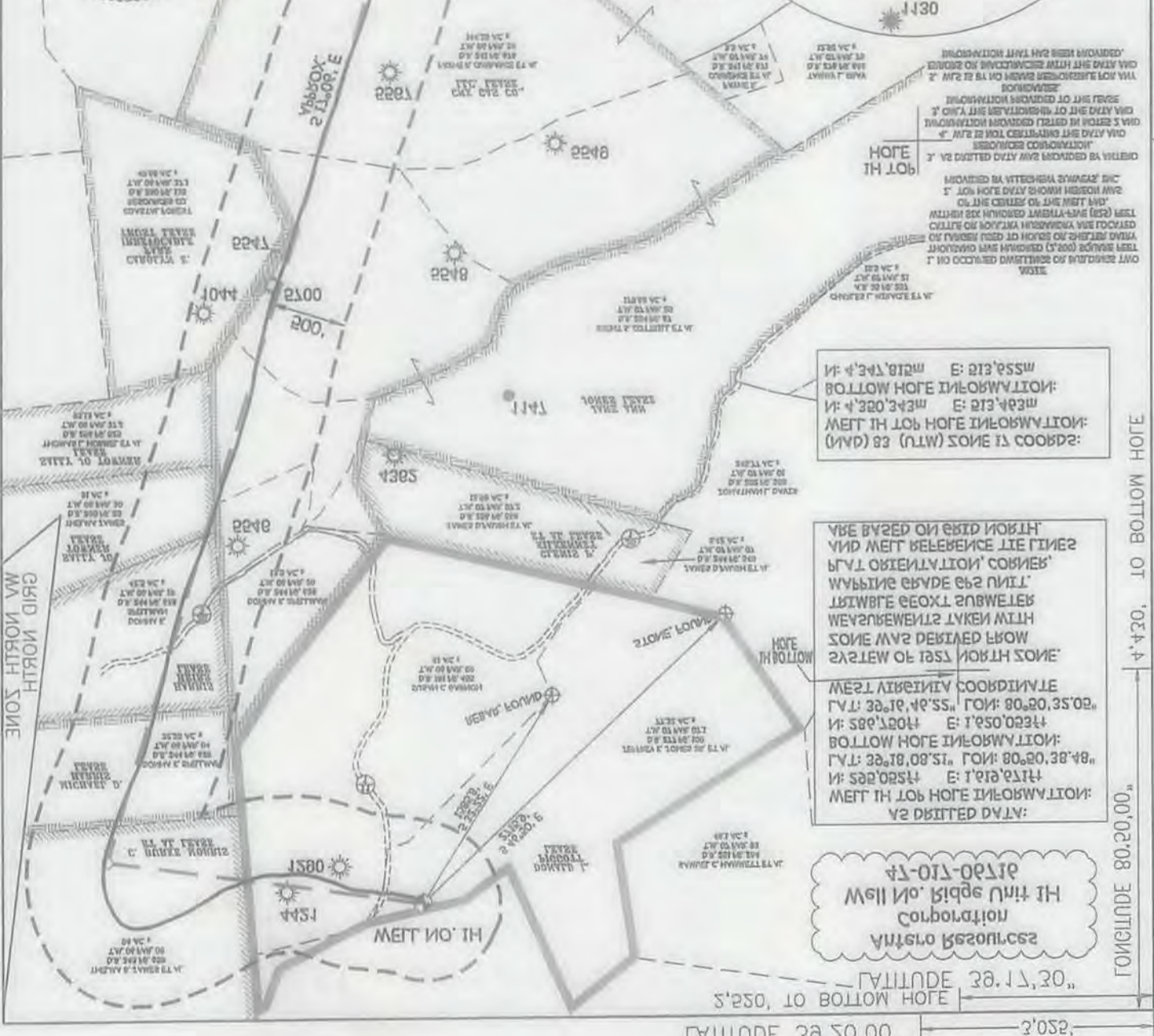
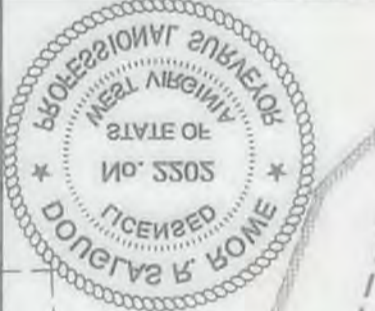
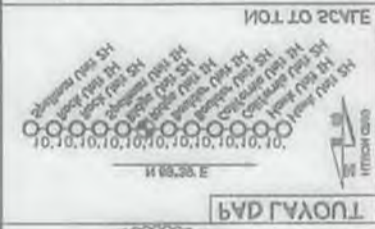
JOB # 141300WV

12/21/2018



WEST VIRGINIA 20412
550 WYOMING AVE. BEINGSBORO
WILLOW GARD SUBDIVISION
OFFICE OF OIL AND GAS
OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA

Metadata table with columns: STATE, COUNTY, BEEMT, APTI MEET #, OPERATOR'S MEET #, RIDGEMOUNT #, DATE, DONGLAS B. BOME B'S, 2303.



MEET NORTH COORDS:
ELEVATION: 823.25'
NORTHING: 823.25'
WESTING: 823.25'

MEET NORTH COORDS:
ELEVATION: 823.25'
NORTHING: 823.25'
WESTING: 823.25'

Meetro Resources Corporation
11th Ridge Unit #17

Latitude 38.50.00", Longitude 80.20.00"

Longitude 80.20.00", Latitude 38.50.00"