

APPROVED
[Signature]

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

DATE: 11/1/17

API 47 - 017 - 06654 County Doddridge District Grant
Quad Smithburg 7.5' Pad Name Revival Pad Field/Pool Name -----
Farm name Larry Williams et al Well Number Rollins 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 4352790m Easting 526717m
Landing Point of Curve Northing 4352760.537m Easting 527215.947m
Bottom Hole Northing 4350742m Easting 527885m

Elevation (ft) 1376' 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

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Date permit issued 01/26/2015 Date drilling commenced 10/15/2015 Date drilling ceased 01/09/2016
Date completion activities began 04/28/2017 Date completion activities ceased 06/14/2017
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 424', 437' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1652', 1844' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 1920', 2140' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:

11/10/2017

API 47-017 - 06654 Farm name Larry Williams et al Well number Rollins 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	Y
Surface	17-1/2"	13-3/8"	564'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2520'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	15268'	New	20#, P-110	N/A	Y
Tubing		2-3/8"	7637'		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	123 sx	15.6	1.18	145	0'	8 Hrs.
Surface	Class A	682 sx	15.6	1.19	812	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1011 sx	15.6	1.18	1193	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1186 sx (Lead) 1219 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.33 (Lead), 1.83 (Tail)	3808	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 15268' MD, 7210' TVD (BHL) & 7265' TVD (Deepest Point Drilled) Loggers TD (ft) 15218' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6973'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Mt. Salem Revival Unit 1H API #47-017-06269). Please reference the wireline logs submitted with Form WR-35 for Mt. Salem Revival Unit 1H. Cement Bond Log has been included with this submission.

Check all wireline logs run caliper density deviated/directional induction neutron resistivity gamma ray temperature sonic **SEP 29 2017**

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No **NW Department of Environmental Protection**

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 - 06654 Farm name Larry Williams et al Well number Rollins Unit 1H

PRODUCING FORMATION(S)	DEPTHS	
<u>Marcellus</u>	<u>7198' (TOP)</u> TVD	<u>7654' (TOP)</u> MD
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3550 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 12261 mcfpd Oil 2 bpd NGL --- bpd Water 825 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 Patterson – UTI Drilling Company LLC
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

SEP 29 2017

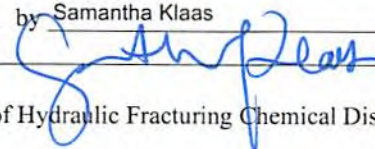
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Logging Company Clutch Energy Services LLC
Address 2154 Greensburg Rd City New Kensington State PA Zip 15068

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

Stimulating Company CalFrac
Address 533 Industrial Park Drive City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Samantha Klaas Telephone 303-357-6759
Signature  Title Permitting Agent Date 09/27/2017

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

11/10/2017

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	4/28/2017	14982	15153	60	Marcellus
2	5/5/2017	14780	14950	60	Marcellus
3	5/6/2017	14577	14748	60	Marcellus
4	5/7/2017	14375	14546	60	Marcellus
5	5/8/2017	14173	14343	60	Marcellus
6	5/8/2017	13970	14141	60	Marcellus
7	5/9/2017	13768	13939	60	Marcellus
8	5/9/2017	13566	13736	60	Marcellus
9	5/10/2017	13363	13534	60	Marcellus
10	5/10/2017	13161	13332	60	Marcellus
11	5/11/2017	12959	13129	60	Marcellus
12	5/12/2017	12756	12927	60	Marcellus
13	5/12/2017	12554	12725	60	Marcellus
14	5/13/2017	12352	12522	60	Marcellus
15	5/13/2017	12149	12320	60	Marcellus
16	5/14/2017	11947	12118	60	Marcellus
17	5/15/2017	11745	11915	60	Marcellus
18	5/16/2017	11542	11713	60	Marcellus
19	5/17/2017	11340	11511	60	Marcellus
20	5/18/2017	11138	11308	60	Marcellus
21	5/18/2017	10935	11106	60	Marcellus
22	5/19/2017	10733	10903	60	Marcellus
23	5/19/2017	10530	10701	60	Marcellus
24	5/20/2017	10328	10499	60	Marcellus
25	5/21/2017	10126	10296	60	Marcellus
26	5/21/2017	9923	10094	60	Marcellus
27	5/22/2017	9721	9892	60	Marcellus
28	5/23/2017	9519	9689	60	Marcellus
29	5/23/2017	9316	9487	60	Marcellus
30	5/24/2017	9114	9285	60	Marcellus
31	5/24/2017	8912	9082	60	Marcellus
32	5/25/2017	8709	8880	60	Marcellus
33	5/25/2017	8507	8678	60	Marcellus
34	5/26/2017	8305	8475	60	Marcellus
35	5/27/2017	8102	8273	60	Marcellus
36	5/27/2017	7900	8071	60	Marcellus
37	5/27/2017	7698	7868	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	5/5/2017	73.1	7442	6400	5174	513550	10292	N/A
2	5/5/2017	79.8	7891	6864	5480	513650	14289	N/A
3	5/6/2017	79.9	7952	6363	5491	514400	10148	N/A
4	5/7/2017	78.8	7822	6217	5660	514950	10363	N/A
5	5/8/2017	79.1	7779	6341	5605	513950	10130	N/A
6	5/8/2017	76.4	7608	5563	5598	514750	10238	N/A
7	5/9/2017	80.0	7645	5919	5641	513300	10146	N/A
8	5/9/2017	75.8	7611	6016	5340	513950	10143	N/A
9	5/10/2017	78.7	7969	5501	5551	513900	11267	N/A
10	5/10/2017	79.4	7456	6408	5554	513900	10107	N/A
11	5/11/2017	79.2	7618	6160	5843	512800	10269	N/A
12	5/12/2017	76.6	7564	5903	5194	508450	11963	N/A
13	5/12/2017	79.0	7486	5815	5801	513350	10107	N/A
14	5/13/2017	78.6	7810	5891	5844	513250	11711	N/A
15	5/13/2017	77.9	7248	5798	5064	514150	10110	N/A
16	5/14/2017	77.9	7527	5764	5452	516550	11044	N/A
17	5/15/2017	79.6	7382	6070	6060	514000	10064	N/A
18	5/16/2017	79.0	7431	5999	5561	513650	10069	N/A
19	5/17/2017	78.4	7255	6091	3812	513600	10073	N/A
20	5/18/2017	77.1	7549	6259	4808	513600	12124	N/A
21	5/18/2017	79.9	7162	5655	5243	514600	11196	N/A
22	5/19/2017	79.7	7421	5830	5362	513600	10190	N/A
23	5/19/2017	78.6	7490	6033	5208	513600	10339	N/A
24	5/20/2017	79.6	6904	5674	5745	515100	10279	N/A
25	5/21/2017	73.4	6899	5880	5494	513750	10100	N/A
26	5/21/2017	76.9	7318	5960	4983	507300	12035	N/A
27	5/22/2017	78.2	6672	5719	5598	514100	10394	N/A
28	5/23/2017	75.2	6644	5780	4486	513950	10092	N/A
29	5/23/2017	76.7	7183	5768	6000	513900	11531	N/A
30	5/24/2017	77.9	6781	5447	4850	513750	10249	N/A
31	5/24/2017	77.5	6647	5805	5217	513900	10012	N/A
32	5/25/2017	78.4	6802	5504	5543	513700	10434	N/A
33	5/25/2017	79.1	6473	5543	6009	462000	10079	N/A
34	5/26/2017	79.2	6526	5722	4237	513800	9890	N/A
35	5/27/2017	79.0	6688	5810	5202	513000	9941	N/A
36	5/27/2017	79.3	7169	5440	5289	514200	10912	N/A
37	5/27/2017	80.2	6340	6238	5221	513450	10204	N/A
AVG=		78.2	7,275	5,923	5,357	408,100	392,534	TOTAL

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API 47-017-06654 Farm Name Larry Williams et al Well Number Rollins Unit 1H

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Fresh Water	424'	N/A	424'	N/A
Fresh Water	437'	N/A	437'	N/A
Shale	est. 13	350	est. 13	350
Siltstone/ Sandstone	est. 350	610	est. 350	610
Shale	est. 610	720	est. 610	720
Sandstone	est. 720	850	est. 720	850
Siltstone/ Shale	est. 850	930	est. 850	930
Shale	est. 930	1740	est. 930	1740
Sandstone	est. 1740	1800	est. 1740	1800
Shale	est. 1800	1920	est. 1800	1920
Sandstone/ Trace Coal	est. 1920	2000	est. 1920	2000
Sandstone	est. 2000	2140	est. 2000	2140
Sandstone/ Trace Coal	est. 2140	2160	est. 2140	2160
Shale/ Sandstone	est. 2160	2175	est. 2160	2177
Big Lime	2175	2662	2177	2663
Gantz	2662	2758	2663	2760
Fifty Foot Sandstone	2758	2933	2760	2935
Gordon	2933	3261	2935	3263
Fifth Sandstone	3261	3336	3263	3338
Bayard	3336	4086	3338	4090
Speechley	4086	4307	4090	4315
Balltown	4307	4831	4315	4873
Bradford	4831	5335	4873	5436
Benson	5335	5598	5436	5734
Alexander	5598	5815	5734	5977
Elk	5815	6338	5977	3570
Rhinestreet	6338	6709	3570	6992
Sycamore	6709	6939	6992	7257
Middlesex	6939	7088	7257	7450
Burkett	7088	7116	7450	7492
Tully	7116	7198	7492	7654
Marcellus	7198	NA	7654	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:	5/5/2017
Job End Date:	5/27/2017
State:	West Virginia
County:	Doddridge
API Number:	47-017-06654-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Rollins 1H
Latitude:	39.32401900
Longitude:	-80.69022500
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,265
Total Base Water Volume (gal):	16,921,385
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
Water	Supplied by Operator	Base Fluid					
			Water	7732-18-5	100.00000	87.99553	
SANIFRAC 8844	CWS	Biocide					
				Listed Below			

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DWP-111	CWS	Gel Slurry					
				Listed Below			
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			
Calbreak 5501	CWS	Breaker					
				Listed Below			
Hydrochloric Acid	CWS	Clean Perforations					
				Listed Below			
DAP-103	CWS	Iron Control					
				Listed Below			
DWP-641	CWS	Friction Reducer					
				Listed Below			
DAP-902	CWS	Scale Inhibitor					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				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	100.00000	11.75425
		Hydrochloric acid	7647-01-0	37.00000	0.04543

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			Guar gum	9000-30-0	60.00000	0.03763
			Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.03763
			Polymer	26100-47-0	45.00000	0.02997
			Paraffinic hydrocarbon solvent	64742-47-8	30.00000	0.01998
			Calcite	471-34-1	1.00000	0.01858
			Illite	12173-60-3	1.00000	0.00798
			Ammonium chloride	12125-02-9	11.00000	0.00733
			Polyethylene glycol mixture	25322-68-3	54.50000	0.00616
			2-Propenoic acid, homopolymer, sodium salt	9003-04-7	40.00000	0.00606
			Goethite	1310-14-1	0.10000	0.00561
			Biotite	1302-27-8	0.10000	0.00384
			Apatite	64476-38-6	0.10000	0.00384
			Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5.00000	0.00314
			Ilmenite	98072-94-7	0.10000	0.00296
			Sorbitan monooleate	1338-43-8	4.00000	0.00266
			2,2-Dibromo-3-Nitrilopropionamide	10222-01-2		0.00226
			Polyethylene glycol monooleate	9004-96-0	3.00000	0.00200
			1,2-Propanediol	57-55-6	10.00000	0.00152
			Sorbitol tetraoleate	61723-83-9	2.00000	0.00133
			Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00094
			Ammonium Persulfate	7727-54-0		0.00090
			Amines, tallow alkyl, ethoxylated	61791-26-2	1.00000	0.00067
			Sodium bromide	7647-15-6	4.00000	0.00045

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			Citric acid	77-92-9	60.00000	0.00043	
			Dibromoacetonitrile	3252-43-5	3.00000	0.00034	
			Alcohols, C12-14, ethoxylated	84133-50-6	0.50000	0.00033	
			Vinylidene chloride- methyl acrylate copolymer	25038-72-6		0.00018	
			Acrylamide	79-06-1	0.10000	0.00007	

* 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(l) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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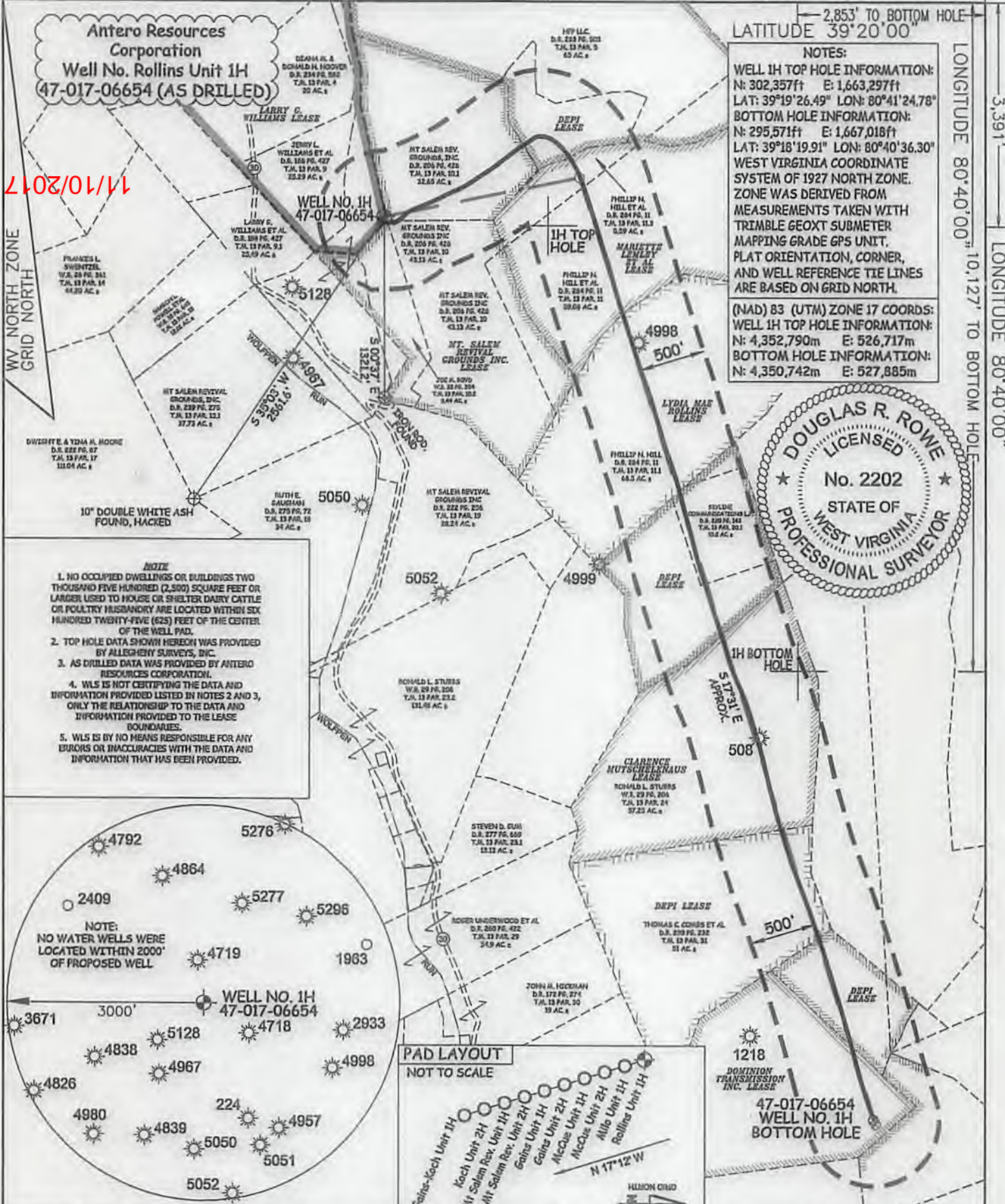
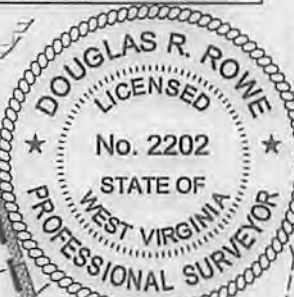
LATITUDE 39°20'00"

6,663'

LATITUDE 39°20'00"

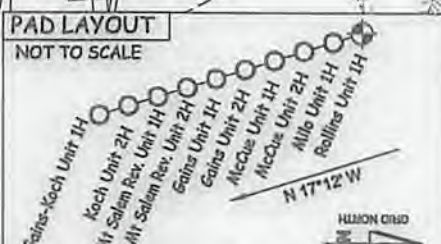
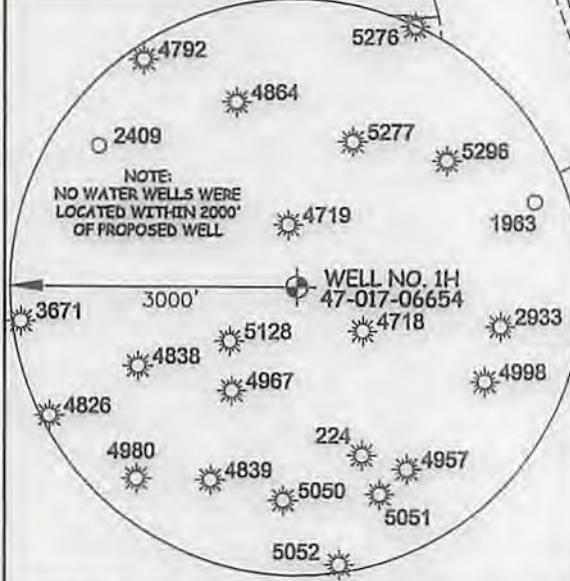
NOTES:
 WELL 1H TOP HOLE INFORMATION:
 N: 302,357ft E: 1,663,297ft
 LAT: 39°19'26.49" LON: 80°41'24.78"
 BOTTOM HOLE INFORMATION:
 N: 295,571ft E: 1,667,018ft
 LAT: 39°18'19.91" LON: 80°40'36.30"
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE 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: 4,352,790m E: 526,717m
 BOTTOM HOLE INFORMATION:
 N: 4,350,742m E: 527,885m



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.



JOB # 14-062WA
 DRAWING # ROLLINSUNIT1HADR
 SCALE 1" = 1000'

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.

LEGEND

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



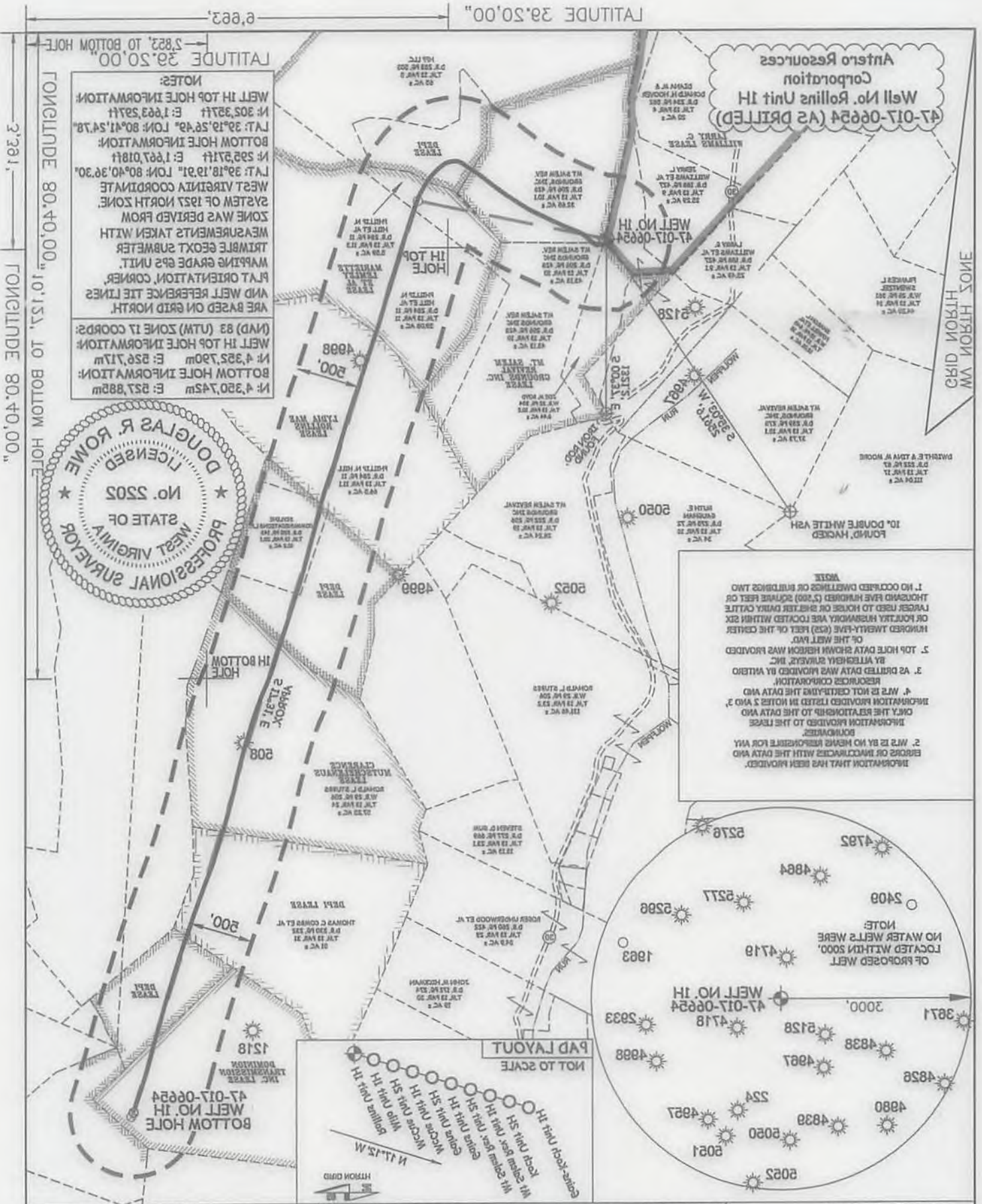
STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

DOUGLAS R. ROWE P.S. 2202
 DATE 09/06/2017

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1,378' AS-BUILT WATERSHED HEADWATERS OF MIDDLE ISLAND CREEK
 QUADRANGLE SMITHBURG 7.5' DISTRICT GRANT COUNTY DODDRIDGE
 SURFACE OWNER LARRY WILLIAMS ET AL ACREAGE 25.49 ACRES +/-
 OIL & GAS ROYALTY OWNER LARRY G. WILLIAMS; MT. SALEM REVIVAL GROUNDS INC.; DEPI; MARIETTE LEMLEY ET AL; LEASE ACRES: 35.11 ACRES; 83 ACRES; 137 ACRES; 65.87 ACRES; LYDIA MAE ROLLINS; DEPI; CLARENCE MUTSCHELKNAUS; DEPI; DEPI; DOMINION TRANSMISSION INC. 66 AC.; 36 AC.; 57 AC.; 51 AC.; 33.5 AC.; 46 AC.;
 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 ESTIMATED DEPTH 7,210' TVD 15,268' MD

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

OPERATOR'S WELL# ROLLINS UNIT #1H
 API WELL # 47 - 017 - 06654
 STATE COUNTY PERMIT
 COUNTY NAME
 PERMIT



NOTES:
 WELL 1H TOP HOLE INFORMATION:
 N: 305.387ft E: 1.663.527ft
 LAT: 39.19.25.49" N, 80.41.57.78" W
 BOTTOM HOLE INFORMATION:
 N: 295.21ft E: 1.667.018ft
 LAT: 39.18.19.1" N, 80.40.36.30" W
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE EPS 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: 4.352.790m E: 526.717m
 BOTTOM HOLE INFORMATION:
 N: 4.350.742m E: 527.888m

PROFESSIONAL SURVEYOR
 STATE OF WEST VIRGINIA
 No. 2505
 LICENSED
 DOUGLAS R. ROWE

DISCLAIMER:
 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,000) SQUARE FEET OR LARGER USED TO HOUSE OR SHEDDER DAIRY CATTLE OR HORSE OR HORSEMANURE 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 ANTERO RESOURCES CORPORATION, INC. BY ANTERO RESOURCES CORPORATION, INC. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 3. WELLS NOT CARRYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3 ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
 4. WELLS 21 BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

