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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- 095 - 02276 County Tyler District Centerville
Quad Middlebourne 7.5' Pad Name Estlack Pad Field/Pool Name ---
Farm name Edna Monroe Well Number Lucy 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 4362788m Easting 510490m
Landing Point of Curve Northing 4363059.336m Easting 510533.060m
Bottom Hole Northing 4365835m Easting 509549m

Elevation (ft) 1142' 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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AUG 28 2017
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Date permit issued 07/23/2015 Date drilling commenced 10/07/2015 Date drilling ceased 12/18/2015
Date completion activities began 06/23/2016 Date completion activities ceased 11/20/2016
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 46', 98' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 748', 1222' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 228', 1128', 1628' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED
NAME: Sean Kelly
DATE: 9-19-17

Reviewed by: DMH

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API 47- 095 - 02276 Farm name Edna Monroe Well number Lucy 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"	72'	New	94#, J-55	N/A	Y
Surface	17- 1/2"	13- 3/8"	415'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2600'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"	5-1/2"	17000'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6766'		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	496 sx	15.6	1.19	590	0	8 Hrs.
Coal							
Intermediate 1	Class A	993 sx	15.6	1.18	1172	0	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	941 sx (Lead) 1633 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.30 (Lead), 1.85 (Tail)	4244	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17000' MD, 6637' TVD (BHL & Deepest point drilled) Loggers TD (ft) 16951' MD

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

Plug back procedure N/A

Kick off depth (ft) 5916'

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

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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

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API 47- 095 - 02276 Farm name Edna Monroe Well number Lucy Unit 1H

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.

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API 47- 095 - 02276 Farm name Edna Monroe Well number Lucy Unit 1H

PRODUCING FORMATION(S)	DEPTHS			
Marcellus	6562' (Top)	TVD	6985' (Top)	MD

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ■ Open Flow OIL TEST ■ Flow ☐ Pump

SHUT-IN PRESSURE Surface 4100 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 12010 mcfpd Oil 201 bpd NGL --- bpd Water 923 bpd GAS MEASURED BY ☐ Estimated ■ Orifice ☐ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT 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_2S, ETC)
	0		0		

*** PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Frontier Drilling LLC
Address 562 Spring Run Rd City Pennsboro State WV Zip 26415

Logging Company Allied Horizontal
Address 381 Colonial Manor Rd City North Huntingdon State PA Zip 15642

Cementing Company C&J Energy Services
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Halliburton
Address 121 Champion Way Suite 200 City Cannonsburg State PA Zip 15317
Please insert additional pages as applicable.

Completed by Samantha Klaas Telephone 303-357-6759
Signature [signature] Title Permitting Agent Date 08/25/2017

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

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11/10/2017

API 47-095-02276 Farm Name Edna Monroe Well Number Lucy Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/23/2016	16744	16885	60	Marcellus
2	7/10/2016	16546	16713	60	Marcellus
3	7/11/2016	16348	16515	60	Marcellus
4	7/11/2016	16150	16317	60	Marcellus
5	7/12/2016	15951	16119	60	Marcellus
6	7/12/2016	15753	15920	60	Marcellus
7	7/13/2016	15555	15722	60	Marcellus
8	7/13/2016	15357	15524	60	Marcellus
9	7/14/2016	15159	15326	60	Marcellus
10	7/14/2016	14961	15128	60	Marcellus
11	7/15/2016	14763	14930	60	Marcellus
12	7/16/2016	14565	14732	60	Marcellus
13	7/16/2016	14367	14534	60	Marcellus
14	7/17/2016	14169	14336	60	Marcellus
15	7/17/2016	13970	14137	60	Marcellus
16	7/18/2016	13772	13939	60	Marcellus
17	7/18/2016	13574	13741	60	Marcellus
18	7/20/2016	13376	13543	60	Marcellus
19	7/20/2016	13178	13345	60	Marcellus
20	7/20/2016	12980	13147	60	Marcellus
21	7/21/2016	12782	12949	60	Marcellus
22	7/21/2016	12584	12751	60	Marcellus
23	7/21/2016	12386	12553	60	Marcellus
24	7/22/2016	12187	12355	60	Marcellus
25	7/22/2016	11989	12156	60	Marcellus
26	7/22/2016	11791	11958	60	Marcellus
27	7/23/2016	11593	11760	60	Marcellus
28	7/23/2016	11395	11562	60	Marcellus
29	7/23/2016	11197	11364	60	Marcellus
30	7/24/2016	10999	11166	60	Marcellus
31	7/24/2016	10801	10968	60	Marcellus
32	7/25/2016	10603	10770	60	Marcellus
33	7/25/2016	10404	10572	60	Marcellus
34	7/25/2016	10206	10373	60	Marcellus
35	7/25/2016	10008	10175	60	Marcellus
36	7/26/2016	9810	9977	60	Marcellus
37	7/26/2016	9612	9779	60	Marcellus
38	7/26/2016	9414	9581	60	Marcellus
39	7/27/2016	9216	9383	60	Marcellus
40	7/27/2016	9018	9185	60	Marcellus
41	7/27/2016	8820	8987	60	Marcellus
42	7/27/2016	8621	8789	60	Marcellus
43	7/28/2016	8423	8590	60	Marcellus
44	7/28/2016	8225	8392	60	Marcellus
45	7/28/2016	8027	8194	60	Marcellus
46	7/29/2016	7829	7996	60	Marcellus
47	7/29/2016	7631	7798	60	Marcellus
48	7/29/2016	7433	7600	60	Marcellus
49	7/29/2016	7235	7402	60	Marcellus
50	7/30/2016	7037	7204	60	Marcellus

API 47-095-02276 **Farm Name** Edna Monroe **Well Number** Lucy 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	7/10/2016	73.8	7767	5463	3857	403037	9470	N/A
2	7/10/2016	75.4	8065	5423	3804	400000	11264	N/A
3	7/11/2016	77.4	7586	5285	4068	397308	9989	N/A
4	7/11/2016	75.3	7652	5628	3758	398376	9079	N/A
5	7/12/2016	75.7	7709	5396	3604	402726	9220	N/A
6	7/12/2016	78.1	7657	5522	3260	400004	9199	N/A
7	7/13/2016	77.4	7510	5228	3423	399995	9038	N/A
8	7/13/2016	79.1	7716	5274	3764	399269	9673	N/A
9	7/14/2016	76.2	7547	5368	3158	400172	9158	N/A
10	7/14/2016	78.5	7138	5240	3296	400987	9196	N/A
11	7/15/2016	78.3	7126	5733	3651	402102	9169	N/A
12	7/16/2016	80.0	7089	5632	3396	400878	9077	N/A
13	7/16/2016	77.6	7293	5570	3076	407176	9089	N/A
14	7/17/2016	81.3	7216	5226	3278	401857	9018	N/A
15	7/17/2016	80.9	7042	5478	3164	402457	9158	N/A
16	7/18/2016	79.2	7157	5896	3185	403277	9008	N/A
17	7/18/2016	80.5	7167	5840	3259	400721	8987	N/A
18	7/20/2016	79.6	7176	5438	3115	407626	9115	N/A
19	7/20/2016	81.3	7032	5365	3254	400015	8966	N/A
20	7/20/2016	78.7	7142	5839	3316	400874	8957	N/A
21	7/21/2016	78.6	7081	5911	3154	401172	8897	N/A
22	7/21/2016	77.3	6742	5613	3307	402312	8939	N/A
23	7/21/2016	77.4	6978	5354	3502	399458	8891	N/A
24	7/22/2016	78.0	7141	5388	4185	399357	10355	N/A
25	7/22/2016	79.4	7266	5526	3247	399623	10943	N/A
26	7/22/2016	78.2	7374	5331	4203	317209	11086	N/A
27	7/23/2016	74.5	6983	5318	3066	400623	10003	N/A
28	7/23/2016	71.1	6495	5369	3143	401187	8907	N/A
29	7/23/2016	72.3	6578	5558	3430	400273	8911	N/A
30	7/24/2016	74.8	6672	5699	3193	400208	8878	N/A
31	7/24/2016	74.0	6679	5725	3137	400076	8925	N/A
32	7/25/2016	71.4	6667	5681	3169	401023	9841	N/A
33	7/25/2016	72.6	6285	5208	3108	404254	9005	N/A
34	7/25/2016	72.0	6258	5565	3475	401742	8878	N/A
35	7/25/2016	72.9	6318	5495	3227	400833	8843	N/A
36	7/26/2016	77.0	6569	5840	3323	400392	8687	N/A
37	7/26/2016	73.0	6143	5599	3299	400305	8793	N/A
38	7/26/2016	75.5	6443	5752	3292	402213	8759	N/A
39	7/27/2016	72.0	6270	5890	3215	400003	8897	N/A
40	7/27/2016	72.1	6143	5831	3164	400533	8811	N/A
41	7/27/2016	69.5	6365	5856	3441	401272	10164	N/A
42	7/27/2016	77.1	6475	5320	3210	400459	8778	N/A
43	7/28/2016	78.0	6365	5581	3145	399882	8753	N/A
44	7/28/2016	74.7	6139	5952	3212	400077	8779	N/A
45	7/28/2016	76.3	6485	6031	3529	409249	9002	N/A
46	7/29/2016	75.2	6063	6006	3241	402601	8717	N/A
47	7/29/2016	74.5	5922	5807	3305	404109	8693	N/A
48	7/29/2016	74.1	5960	5666	3134	399937	8639	N/A
49	7/29/2016	74.0	6095	6009	3005	400876	8645	N/A
50	7/30/2016	77.0	5813	5548	3086	401636	8701	N/A
	AVG=	**76.2**	**6,851**	**5,585**	**3,357**	**19,981,751**	**459,950**	TOTAL

API 47-095-02276 Farm Name Edna Monroe Well Number Lucy 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	46'	N/A	46'	N/A
Fresh Water	98'	N/A	98'	N/A
Siltstone	est. 0	228	est. 0	228
Coal	est. 228	248	est. 228	248
Sandstone/Siltstone	est. 248	908	est. 248	908
Shale/Siltstone	est. 908	1128	est. 908	1128
Coal	est. 1128	1148	est. 1128	1148
Shale	est. 1148	1348	est. 1148	1348
Coal	est. 1348	1368	est. 1348	1368
Shale	est. 1368	1448	est. 1368	1448
Sandstone/Siltstone	est. 1448	1628	est. 1448	1628
Coal	est. 1628	1648	est. 1628	1648
Sandstone/Siltstone	est. 1648	2051	est. 1648	2052
Big Lime	2051	2165	2052	2166
Big Injun	2165	2714	2166	2715
Gantz Sand	2714	2816	2715	2817
Fifty Foot Sandstone	2816	2924	2817	2925
Gordon	2924	3210	2925	3211
Fifth Sandstone	3210	3292	3211	3293
Bayard	3292	3618	3293	3619
Warren	3618	4001	3619	4002
Speechley	4001	4716	4002	4717
Bradford	4716	5114	4717	5115
Benson	5114	5362	5115	5363
Alexander	5362	5552	5363	5553
Elk	5552	5923	5553	5924
Rhinestreet	5923	6230	5924	6280
Sycamore	6230	6402	6280	6563
Middlesex	6402	6501	6563	6783
Burkett	6501	6532	6783	6870
Tully	6532	6562	6870	6985
Marcellus	6562	N/A	6985	N/A

*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.

11/10/2017

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/10/2016
Job End Date:	7/30/2016
State:	West Virginia
County:	Tyler
API Number:	47-095-02276-08-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Lucy 1H
Latitude:	39.41447000
Longitude:	-80.87831667
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,619
Total Base Water Volume (gal):	19,936,390
Total Base Non Water Volume:	0

FracFocus Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

Oil & Gas

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	89.03726	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.20561	

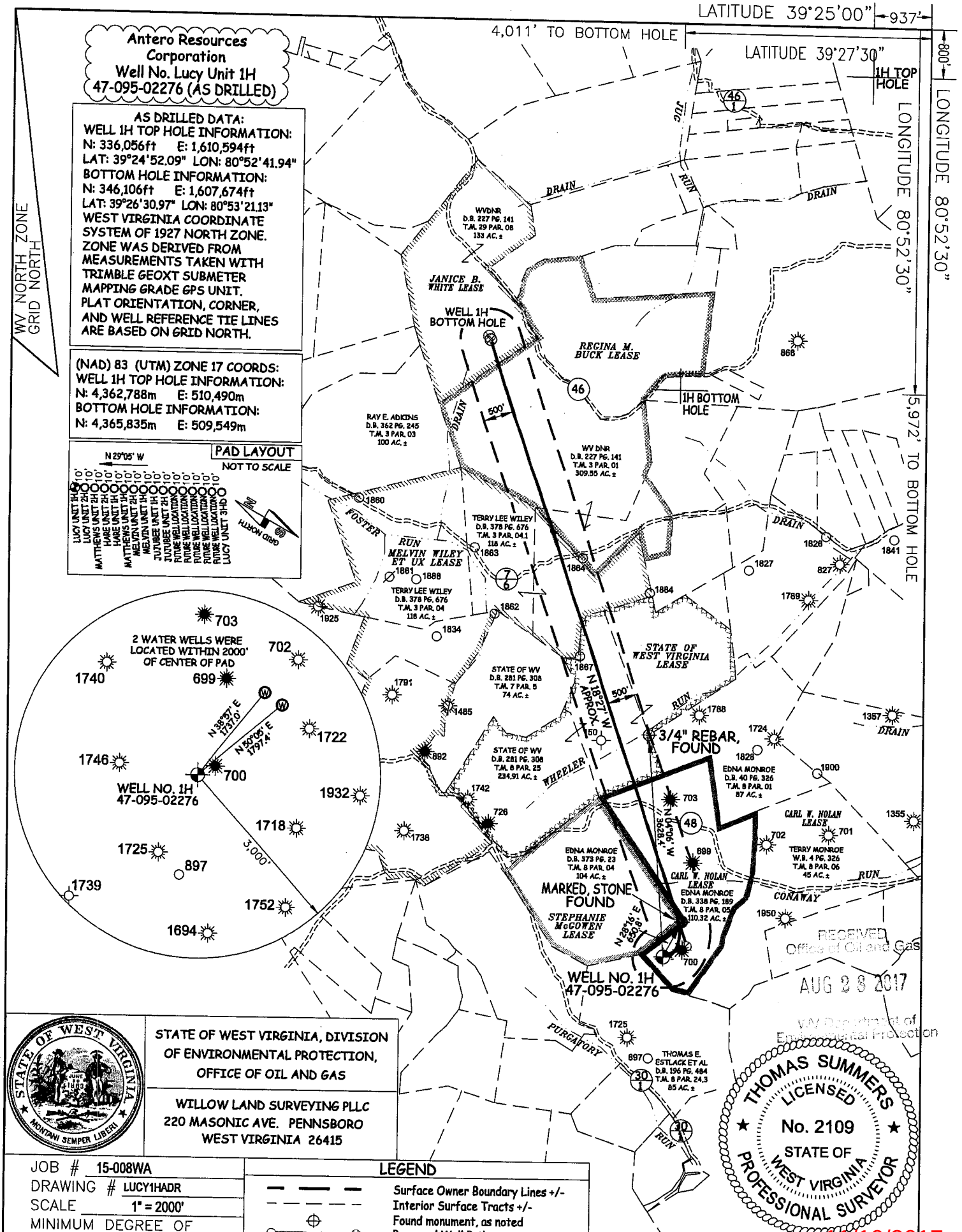
SP BREAKER	Halliburton	Breaker					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				Listed Below			
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant					
				Listed Below			
HYDROCHLORIC ACID	Halliburton	Solvent					
				Listed Below			
SAND-PREMIUM WHITE - 30/50	Halliburton	Proppant					
				Listed Below			
FR-76	Halliburton	Friction Reducer					
				Listed Below			
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant					
				Listed Below			
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					

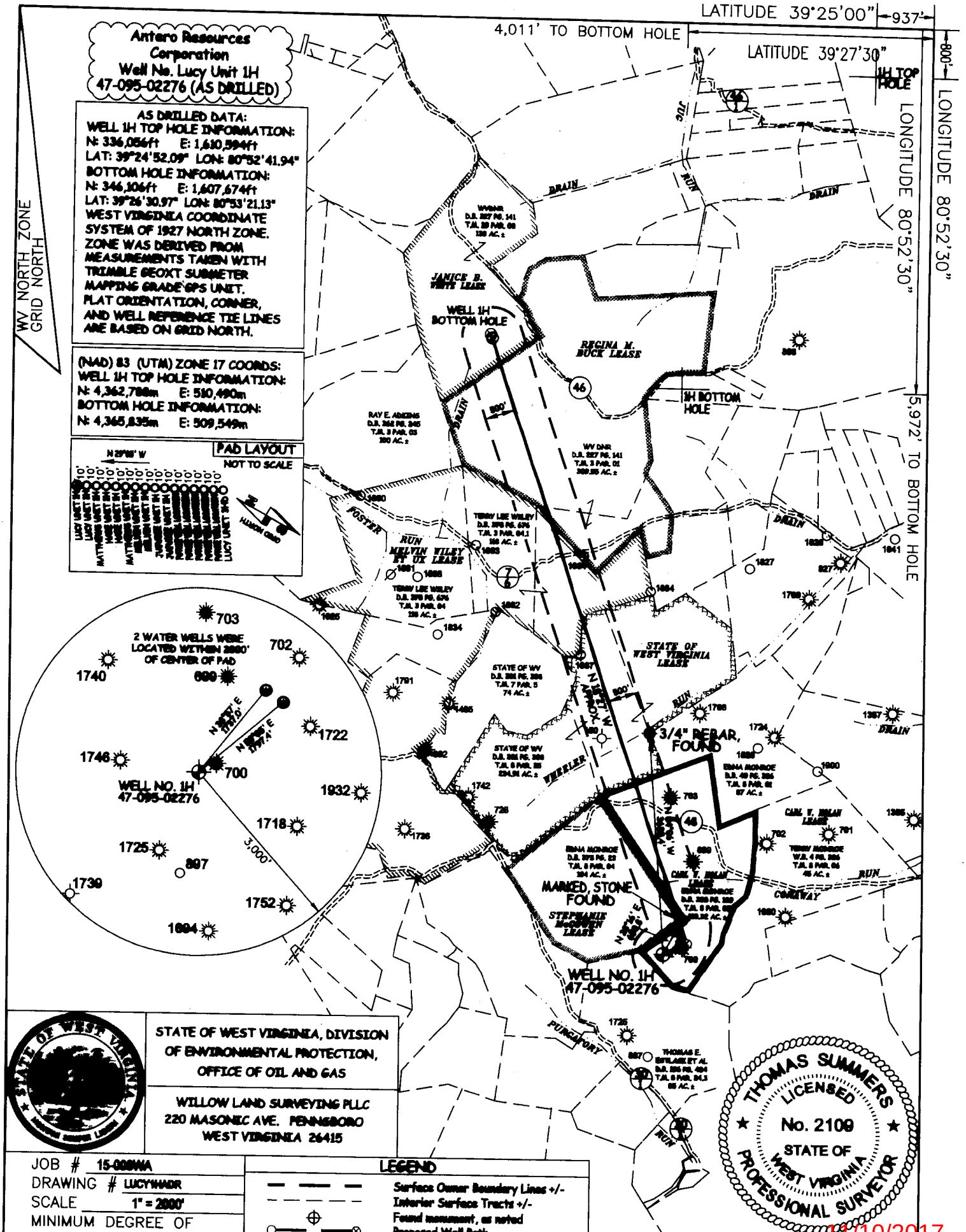
				Listed Below			
FDP-M1075-12	Halliburton	Scale Inhibitor					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica, quartz	14808-60-7	100.00000	10.71307	
			Hydrochloric acid	7647-01-0	15.00000	0.02271	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01913	
			Acrylamide acrylate copolymer	Proprietary	30.00000	0.01913	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Inorganic salt	Proprietary	30.00000	0.01913	
			Guar gum	9000-30-0	100.00000	0.01088	
			Ethylene Glycol	107-21-1	60.00000	0.00881	
			Glutaraldehyde	111-30-8	30.00000	0.00260	
			Telomer	Proprietary	10.00000	0.00147	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00043	
			Sodium persulfate	7775-27-1	100.00000	0.00022	
			Sodium polyacrylate	9003-04-7	1.00000	0.00015	
			Ethanol	64-17-5	1.00000	0.00009	
			Methanol	67-56-1	60.00000	0.00008	

			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1	30.00000	0.00003	
			Fatty acids, tall oil	Proprietary	30.00000	0.00003	
			Ethoxylated alcohols	Proprietary	30.00000	0.00003	
			Olefins	Proprietary	5.00000	0.00001	
			Propargyl alcohol	107-19-7	10.00000	0.00001	
			Phosphoric acid	7664-38-2	0.10000	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)


Antero Resources Corporation
Well No. Lucy Unit 1H
47-095-02276 (AS DRILLED)
AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 336,056ft E: 1,610,594ft
LAT: 39°24'52.09" LON: 80°52'41.94"
BOTTOM HOLE INFORMATION:
N: 346,106ft E: 1,607,674ft
LAT: 39°26'30.97" LON: 80°53'21.13"
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: 4,362,788m E: 510,490m
BOTTOM HOLE INFORMATION:
N: 4,365,835m E: 509,549m
WV NORTH ZONE GRID NORTH
PAD LAYOUT
NOT TO SCALE
N 29°05' W
LUCY UNIT 1H
LUCY UNIT 2H
MATTHEWS UNIT 2H
HARE UNIT 2H
HARE UNIT 1H
MATTHEWS UNIT 1H
MELVIN UNIT 1H
MELVIN UNIT 2H
JUTUBEE UNIT 1H
JUTUBEE UNIT 2H
FUTURE WELL LOCATION
LUCY UNIT 3H
GRID NORTH
LATITUDE 39°25'00"
937'
4,011' TO BOTTOM HOLE
LATITUDE 39°27'30"
1H TOP HOLE
800'
LONGITUDE 80°52'30"
LONGITUDE 80°52'30"
5,972' TO BOTTOM HOLE
WELL 1H BOTTOM HOLE
1H BOTTOM HOLE
WELL NO. 1H 47-095-02276
2 WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD
N 38°37' E 1737.0'
N 50°05' E 1797.4'
3,000'
N 18°27' W APPROX. 500'
N 04°06' W 3628.4'
N 28°16' E 850.8'
500'
3/4" REBAR, FOUND
MARKED, STONE FOUND
WVDNR D.B. 227 PG. 141 T.M. 29 PAR. 08 133 AC. ±
JANICE B. WHITE LEASE
REGINA M. BUCK LEASE
RAY E. ADKINS D.B. 362 PG. 245 T.M. 3 PAR. 03 100 AC. ±
WV DNR D.B. 227 PG. 141 T.M. 3 PAR. 01 309.55 AC. ±
TERRY LEE WILEY D.B. 378 PG. 676 T.M. 3 PAR. 04.1 116 AC. ±
MELVIN WILEY ET UX LEASE
TERRY LEE WILEY D.B. 378 PG. 676 T.M. 3 PAR. 04 116 AC. ±
STATE OF WEST VIRGINIA LEASE
STATE OF WV D.B. 281 PG. 308 T.M. 7 PAR. 5 74 AC. ±
STATE OF WV D.B. 281 PG. 308 T.M. 8 PAR. 25 234.91 AC. ±
EDNA MONROE D.B. 40 PG. 326 T.M. 8 PAR. 01 87 AC. ±
CARL W. NOLAN LEASE
TERRY MONROE W.B. 4 PG. 326 T.M. 8 PAR. 06 45 AC. ±
EDNA MONROE D.B. 373 PG. 23 T.M. 8 PAR. 04 104 AC. ±
CARL W. NOLAN LEASE
EDNA MONROE D.B. 338 PG. 189 T.M. 8 PAR. 05 110.32 AC. ±
STEPHANIE McGOWEN LEASE
THOMAS E. ESTLACK ET AL D.B. 196 PG. 484 T.M. 8 PAR. 24.3 85 AC. ±
DRAIN
RUN
FOSTER
WHEELER
PURGATORY
CONAWAY
RECEIVED
Office of Oil and Gas
AUG 28 2017
WV 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
THOMAS SUMMERS
LICENSED
No. 2109
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR
JOB # 15-008WA
DRAWING # LUCY1HADR
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
LEGEND
Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Found monument, as noted
Proposed Well Path
As Drilled Well Path
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.
11/10/2017


Antero Resources Corporation
Well No. Lucy Unit 1H
47-095-02276 (AS DRILLED)
AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 336,056ft E: 1,610,594ft
LAT: 39°24'52.09" LON: 80°52'41.94"
BOTTOM HOLE INFORMATION:
N: 346,106ft E: 1,607,674ft
LAT: 39°26'30.97" LON: 80°53'21.13"
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: 4,362,788m E: 510,490m
BOTTOM HOLE INFORMATION:
N: 4,365,835m E: 509,549m
PAD LAYOUT
NOT TO SCALE
WV NORTH ZONE GRID NORTH
LATITUDE 39°25'00"
LATITUDE 39°27'30"
4,011' TO BOTTOM HOLE
937'
800'
LONGITUDE 80°52'30"
LONGITUDE 80°52'30"
5,972' TO BOTTOM HOLE
1H TOP HOLE
1H BOTTOM HOLE
WELL 1H BOTTOM HOLE
JANICE B. WHITE LEASE
REGINA M. BUCK LEASE
MELVIN WILEY ET UX LEASE
STATE OF WEST VIRGINIA LEASE
STEPHANIE McOWEN LEASE
CARL V. HOLAN LEASE
WELL NO. 1H 47-095-02276
2 WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD
3,000'
3/4" REBAR, FOUND
MARKED STONE FOUND
RAY E. ADKINS
WVDNR
TERRY LEE WILEY
STATE OF WV
EDNA MONROE
TERRY MONROE
THOMAS E. EHLAKE ET AL
FOSTER
WHEELER
PURGATORY
CONWAY
RUN
DRAIN
STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415
JOB # 15-009WA
DRAWING # LUCY1HADR
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WEST VIRGINIA
PROFESSIONAL SURVEYOR
11/10/2017