WR-35
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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 - 02277 County Tyler District Centerville
Quad Middlebourne 7.5' Pad Name Estlack Field/Pool Name ---
Farm name Edna Monroe Well Number Lucy 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 4362786m Easting 510491m
Landing Point of Curve Northing 4363035.341m Easting 510760.142m
Bottom Hole Northing 4365920m Easting 509735m

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

Date permit issued 07/23/2015 Date drilling commenced 10/07/2015 Date drilling ceased 12/30/2015
Date completion activities began 06/24/2016 Date completion activities ceased 11/26/2016
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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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 260', 1160', 1660' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED
NAME:
DATE: 9-19-17

Reviewed by:
DmH

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API 47- 095 - 02277 Farm name Edna Monroe Well number Lucy 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"	72'	New	94#, J-55	N/A	Y
Surface	17- 1/2"	13- 3/8"	410'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2550'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"	5-1/2"	17281'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6988'		4.7#, N-80		
Packer type and depth set		N/A					

Comment Details *Please note this well was drilled to 17309', however casing was only ran to 17281'

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	463 sx	15.6	1.19	551	0	8 Hrs.
Coal							
Intermediate 1	Class A	996 sx	15.6	1.18	1175	0	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1006 sx (Lead), 1631 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.33 (Lead), 1.83 (Tail)	4323	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17309' MD, 6627' TVD (BHL); 6629' TVD (Deepest point drilled) Loggers TD (ft) 17263' MD

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

Plug back procedure N/A

Kick off depth (ft) 6317'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Lucy Unit 1H API# 47-095-02276). Please reference the wireline logs submitted with Form WR-35 for the Lucy Unit 1H. A Cement Bond Log has been included with this submittal.

Check all wireline logs run □ caliper □ density □ deviated/directional □ induction □ neutron □ resistivity □ gamma ray □ temperature □sonic

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected □ Yes ■ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

Conductor - 0

Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface

Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED N/A

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API 47- 095 - 02277 Farm name Edna Monroe Well number Lucy 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.

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API 47- 095 - 02277 Farm name Edna Monroe Well number Lucy Unit 2H

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6570' (Top) TVD	7043' (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 13542 mcfpd Oil 200 bpd NGL --- bpd Water 1088 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 Road City Pennsboro State WV Zip 26415

Logging Company Allied Horizontal Wireline Services
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 Canonsburg State PA Zip 15317
Please insert additional pages as applicable.

Completed by Samantha Klaas Telephone 303-357-6759
Signature Samantha Klaas Title Permitting Agent Date 08/18/2017

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

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WV Department of
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API 47-095-02277 Farm Name Edna Monroe Well Number Lucy Unit 2H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/24/2016	17008	17150	60	Marcellus
2	7/11/2016	16810	16977	60	Marcellus
3	7/12/2016	16612	16779	60	Marcellus
4	7/12/2016	16413	16581	60	Marcellus
5	7/13/2016	16215	16382	60	Marcellus
6	7/14/2016	16017	16184	60	Marcellus
7	7/14/2016	15819	15986	60	Marcellus
8	7/14/2016	15620	15788	60	Marcellus
9	7/15/2016	15422	15589	60	Marcellus
10	7/16/2016	15224	15391	60	Marcellus
11	7/16/2016	15025	15193	60	Marcellus
12	7/17/2016	14827	14994	60	Marcellus
13	7/17/2016	14629	14796	60	Marcellus
14	7/18/2016	14430	14598	60	Marcellus
15	7/19/2016	14232	14399	60	Marcellus
16	7/20/2016	14034	14201	60	Marcellus
17	7/20/2016	13836	14003	60	Marcellus
18	7/20/2016	13637	13805	60	Marcellus
19	7/21/2016	13439	13606	60	Marcellus
20	7/21/2016	13241	13408	60	Marcellus
21	7/21/2016	13042	13210	60	Marcellus
22	7/22/2016	12844	13011	60	Marcellus
23	7/22/2016	12646	12813	60	Marcellus
24	7/23/2016	12447	12615	60	Marcellus
25	7/23/2016	12249	12416	60	Marcellus
26	7/23/2016	12051	12218	60	Marcellus
27	7/24/2016	11853	12020	60	Marcellus
28	7/24/2016	11654	11822	60	Marcellus
29	7/24/2016	11456	11623	60	Marcellus
30	7/25/2016	11258	11425	60	Marcellus
31	7/25/2016	11059	11227	60	Marcellus
32	7/25/2016	10861	11028	60	Marcellus
33	7/26/2016	10663	10830	60	Marcellus
34	7/26/2016	10464	10632	60	Marcellus
35	7/26/2016	10266	10433	60	Marcellus
36	7/26/2016	10068	10235	60	Marcellus
37	7/27/2016	9870	10037	60	Marcellus
38	7/27/2016	9671	9839	60	Marcellus
39	7/27/2016	9473	9640	60	Marcellus
40	7/28/2016	9275	9442	60	Marcellus
41	7/28/2016	9076	9244	60	Marcellus
42	7/28/2016	8878	9045	60	Marcellus
43	7/29/2016	8680	8847	60	Marcellus
44	7/29/2016	8481	8649	60	Marcellus
45	7/29/2016	8283	8450	60	Marcellus
46	7/29/2016	8085	8252	60	Marcellus
47	7/30/2016	7887	8054	60	Marcellus
48	7/30/2016	7688	7856	60	Marcellus
49	7/30/2016	7490	7657	60	Marcellus
50	7/30/2016	7292	7459	60	Marcellus
51	7/30/2016	7093	7261	60	Marcellus

API 47-095-02277 **Farm Name** Edna Monroe **Well Number** Lucy 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	7/11/2016	77.1	7693	4679	3818	403442	9219	N/A
2	7/11/2016	75.1	7630	4986	3480	400463	9208	N/A
3	7/12/2016	71.2	7901	5355	3164	400583	9403	N/A
4	7/12/2016	77.6	7737	5300	3684	403488	9439	N/A
5	7/13/2016	76.3	7337	5397	3354	401794	9331	N/A
6	7/14/2016	76.5	7441	5277	3530	404122	9149	N/A
7	7/14/2016	75.6	7460	5339	3324	400431	9191	N/A
8	7/14/2016	76.8	7248	5452	3424	400676	9202	N/A
9	7/15/2016	77.6	7317	5560	3932	390293	10764	N/A
10	7/16/2016	66.3	7198	5401	3203	402158	10970	N/A
11	7/16/2016	82.4	7377	5166	3569	401243	9204	N/A
12	7/17/2016	71.4	7663	5380	4382	402562	11882	N/A
13	7/17/2016	81.0	7280	5391	3404	403337	9172	N/A
14	7/18/2016	78.1	7190	5319	3483	399377	9199	N/A
15	7/19/2016	80.7	7530	5309	3640	401603	10463	N/A
16	7/20/2016	81.1	7293	5333	3460	400780	9850	N/A
17	7/20/2016	79.9	7100	5476	3423	402311	8959	N/A
18	7/20/2016	79.3	7200	5545	3888	399567	8881	N/A
19	7/21/2016	76.6	6779	5491	3555	402050	8987	N/A
20	7/21/2016	73.9	7058	5339	3619	400512	10840	N/A
21	7/21/2016	78.8	7155	5667	3331	401492	9018	N/A
22	7/22/2016	80.1	7187	5426	3426	400776	10238	N/A
23	7/22/2016	78.6	7076	5418	3308	405318	9186	N/A
24	7/23/2016	78.7	6841	5239	3531	399149	9846	N/A
25	7/23/2016	71.8	6610	5465	3331	401317	8972	N/A
26	7/23/2016	73.0	6519	5568	3454	400774	9010	N/A
27	7/24/2016	72.6	6469	6006	3601	401521	8870	N/A
28	7/24/2016	77.8	6590	5618	3393	401993	8883	N/A
29	7/24/2016	73.4	6614	5530	3363	400939	9039	N/A
30	7/25/2016	73.4	6498	5499	3346	401713	8887	N/A
31	7/25/2016	72.0	6309	5363	3235	400732	8990	N/A
32	7/25/2016	69.7	5933	5884	3435	401280	8938	N/A
33	7/26/2016	72.2	6380	5674	3492	400311	8797	N/A
34	7/26/2016	76.5	6589	5625	3409	401108	8769	N/A
35	7/26/2016	74.4	6571	5667	3488	400857	8794	N/A
36	7/26/2016	77.2	6628	5624	3409	400072	9854	N/A
37	7/27/2016	73.6	6305	5603	3401	401457	8754	N/A
38	7/27/2016	72.1	6430	5912	3316	401245	10046	N/A
39	7/27/2016	77.0	6471	5604	3360	400852	8844	N/A
40	7/28/2016	79.0	6517	5841	3339	401439	8818	N/A
41	7/28/2016	73.4	6547	5842	3322	400028	9669	N/A
42	7/28/2016	72.9	6741	5815	5432	321108	8984	N/A
43	7/29/2016	77.3	6389	5404	3557	403011	8925	N/A
44	7/29/2016	73.3	6140	6009	3424	398338	8729	N/A
45	7/29/2016	74.5	5950	6167	3485	399845	8758	N/A
46	7/29/2016	74.0	6160	5649	3075	400131	8730	N/A
47	7/30/2016	77.8	6267	6206	3310	402390	8844	N/A
48	7/30/2016	76.7	6135	5688	3385	400416	8667	N/A
49	7/30/2016	75.9	5807	5602	3064	401622	8762	N/A
50	7/30/2016	77.0	5809	6258	3170	400596	8657	N/A
51	7/30/2016	78.0	5928	5548	3054	401040	8635	N/A
	AVG=	**75.8**	**6,804**	**5,547**	**3,482**	**20,373,662**	**473,226**	TOTAL

API 47-095-02277 Farm Name Edna Monroe Well Number Lucy Unit 2H				
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	0	228	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	2041	est. 1648	2044
Big Lime	2041	2150	2044	2153
Big Injun	2150	2706	2153	2709
Gantz Sand	2706	2796	2709	2799
Fifty Foot Sandstone	2796	2910	2799	2914
Gordon	2910	3210	2914	3214
Fifth Sandstone	3210	3293	3214	3297
Bayard	3293	3609	3297	3613
Warren	3609	3998	3613	4003
Speechley	3998	4717	4003	4761
Bradford	4717	5107	4761	5189
Benson	5107	5355	5189	5465
Alexander	5355	5545	5465	5678
Elk	5545	5926	5678	6099
Rhinestreet	5926	6235	6099	6451
Sycamore	6235	6405	6451	6676
Middlesex	6405	6507	6676	6859
Burkett	6507	6539	6859	6939
Tully	6539	6570	6939	7043
Marcellus	6570	NA	7043	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:	7/11/2016
Job End Date:	7/30/2016
State:	West Virginia
County:	Tyler
API Number:	47-095-02277-08-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Lucy 2H
Latitude:	39.41444722
Longitude:	-80.87829720
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,662
Total Base Water Volume (gal):	20,575,681
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	89.14451	Density = 8.340
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.20445	

SP BREAKER	Halliburton	Breaker					
				Listed Below			
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				Listed Below			
FDP-M1075-12	Halliburton	Scale Inhibitor					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant					
				Listed Below			
FR-76	Halliburton	Friction Reducer					
				Listed Below			
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
				Listed Below			

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HYDROCHLORIC ACID	Halliburton	Solvent					
				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	10.60684	
			Hydrochloric acid	7647-01-0	15.00000	0.02222	
			Inorganic salt	Proprietary	30.00000	0.02037	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02037	
			Acrylamide acrylate copolymer	Proprietary	30.00000	0.02037	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Guar gum	9000-30-0	100.00000	0.00960	
			Ethylene Glycol	107-21-1	60.00000	0.00853	
			Glutaraldehyde	111-30-8	30.00000	0.00261	
			Telomer	Proprietary	10.00000	0.00142	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00044	
			Sodium persulfate	7775-27-1	100.00000	0.00016	
			Sodium polyacrylate	9003-04-7	1.00000	0.00014	
			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	
			Ethoxylated alcohols	Proprietary	30.00000	0.00003	
			Fatty acids, tall oil	Proprietary	30.00000	0.00003	
			Olefins	Proprietary	5.00000	0.00001	
			Propargyl alcohol	107-19-7	10.00000	0.00001	

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			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)

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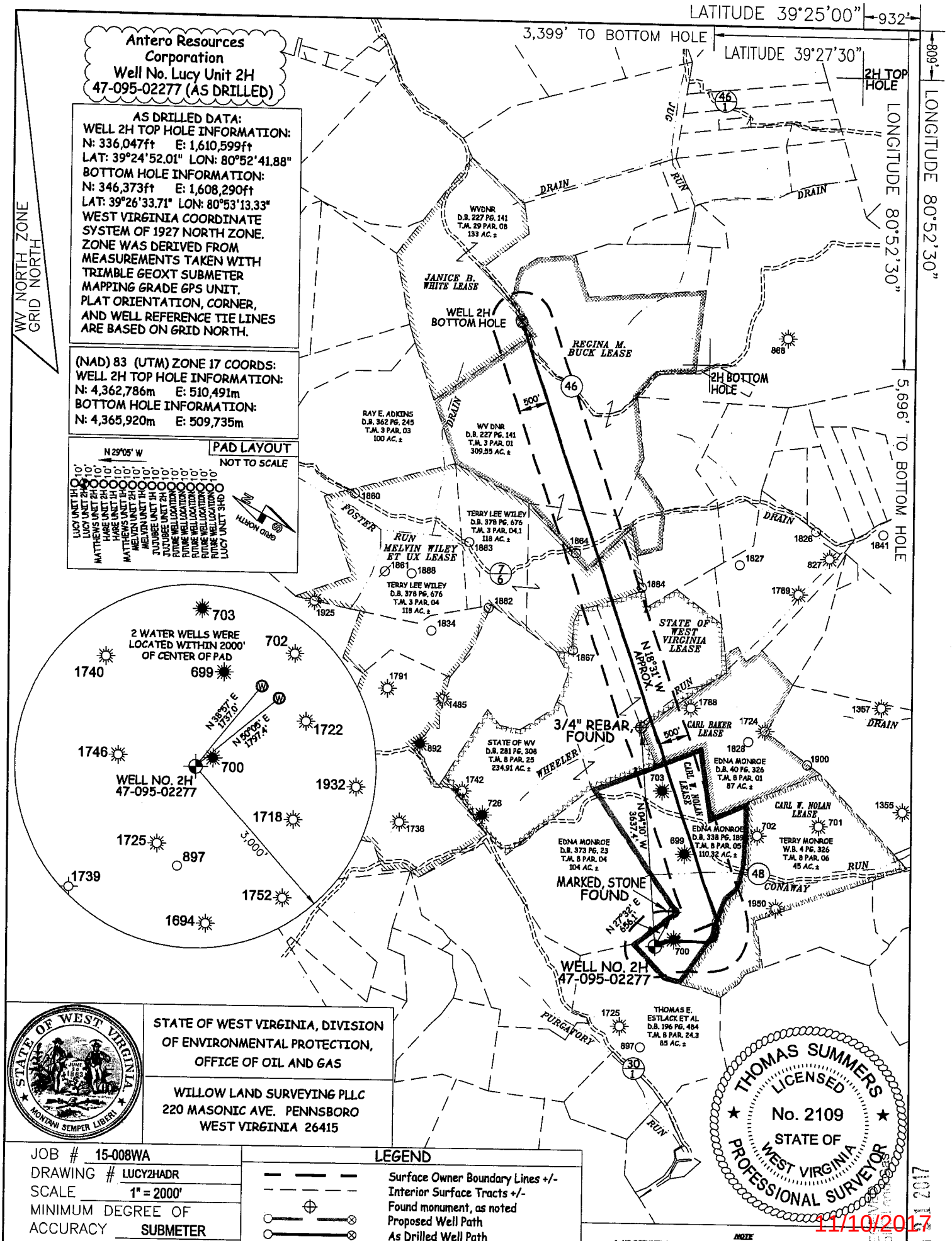
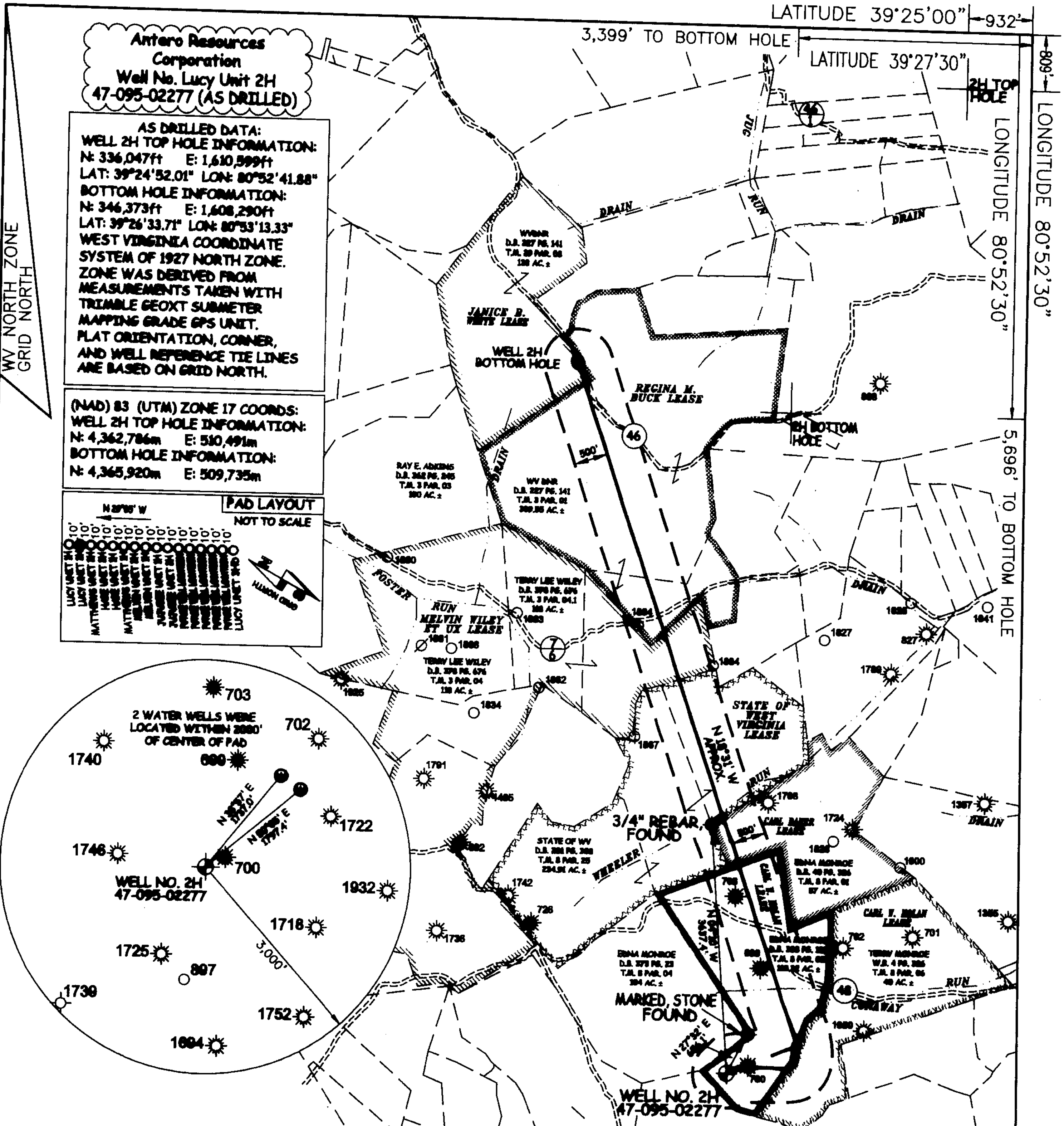

Antero Resources Corporation
Well No. Lucy Unit 2H
47-095-02277 (AS DRILLED)
AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 336,047ft E: 1,610,599ft
LAT: 39°24'52.01" LON: 80°52'41.88"
BOTTOM HOLE INFORMATION:
N: 346,373ft E: 1,608,290ft
LAT: 39°26'33.71" LON: 80°53'13.33"
WEST VIRGINIA COORDINATE 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 2H TOP HOLE INFORMATION:
N: 4,362,786m E: 510,491m
BOTTOM HOLE INFORMATION:
N: 4,365,920m E: 509,735m
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 1H
HARE UNIT 2H
MATTHEWS UNIT 1H
MELVIN UNIT 1H
MELVIN UNIT 2H
JUJUBEE UNIT 1H
JUJUBEE UNIT 2H
FUTURE WELL LOCATION
LUCY UNIT 3HD
GRID NORTH
LATITUDE 39°25'00"
932'
3,399' TO BOTTOM HOLE
LATITUDE 39°27'30"
809'
LONGITUDE 80°52'30"
2H TOP HOLE
2H BOTTOM HOLE
5,696' TO BOTTOM HOLE
WELL 2H BOTTOM HOLE
JANICE B. WHITE LEASE
REGINA M. BUCK LEASE
WVDNR D.B. 227 PG. 141 T.M. 29 PAR. 08 133 AC. ±
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. 04.1 118 AC. ±
TERRY LEE WILEY D.B. 378 PG. 676 T.M. 3 PAR. 04 118 AC. ±
MELVIN WILEY ET UX LEASE
STATE OF WEST VIRGINIA LEASE
CARL BAKER LEASE
CARL W. NOLAN LEASE
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. ±
EDNA MONROE D.B. 373 PG. 23 T.M. 8 PAR. 04 104 AC. ±
EDNA MONROE D.B. 338 PG. 185 T.M. 8 PAR. 05 110.32 AC. ±
TERRY MONROE W.B. 4 PG. 326 T.M. 8 PAR. 06 45 AC. ±
THOMAS E. ESTLACK ET AL D.B. 196 PG. 484 T.M. 8 PAR. 24.3 85 AC. ±
2 WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD
N 38°37' E 1737.0'
N 50°05' E 1797.4'
WELL NO. 2H 47-095-02277
3,000'
3/4" REBAR, FOUND
N 18°31' W APPROX. 500'
N 04°10' W 3637.4'
N 27°32' E 556.1'
MARKED, STONE FOUND
WELL NO. 2H 47-095-02277
FOSTER
WHEELER
PURGATORY
CONAWAY
DRAIN
RUN
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 # 15-008WA
DRAWING # LUCY2HADR
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
THOMAS SUMMERS
LICENSED
No. 2109
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR
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
AUG 21 2017
WV Department of Environmental Protection
Office of Oil & Gas

Antero Resources Corporation
Well No. Lucy Unit 2H
47-095-02277 (AS DRILLED)

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 336,047ft E: 1,610,599ft
LAT: 39°24'52.01" LON: 80°52'41.88"
BOTTOM HOLE INFORMATION:
N: 346,373ft E: 1,608,290ft
LAT: 39°26'33.71" LON: 80°53'13.33"
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 2H TOP HOLE INFORMATION:
N: 4,362,786m E: 510,491m
BOTTOM HOLE INFORMATION:
N: 4,365,920m E: 509,735m

PAD LAYOUT
NOT TO SCALE



WV NORTH ZONE
GRID NORTH
LATITUDE 39°25'00"
932'
3,399' TO BOTTOM HOLE
LATITUDE 39°27'30"
809'
2H TOP HOLE
LONGITUDE 80°52'30"
LONGITUDE 80°52'30"
5,696' TO BOTTOM HOLE
DRAIN
RUN
JANICE D. WHITE LEASE
WELL 2H BOTTOM HOLE
REGINA M. BUCK LEASE
2H BOTTOM HOLE
500'
RAY E. ADKINS
WV DNR
FOSTER RUN
MELVIN WILEY ET UX LEASE
TERRY LEE WILEY
STATE OF WEST VIRGINIA LEASE
N 18°31' W APPROX.
3/4" REBAR FOUND
STATE OF WV
WHEELER
CARL BAKER LEASE
ERNA MONROE
CARL V. NOLAN LEASE
TERRY MONROE
MARKED STONE FOUND
WELL NO. 2H
47-095-02277
PURGATORY
THOMAS E. BAYLACK ET AL
CONAWAY
703
2 WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD
702
1740
1722
1746
700
WELL NO. 2H
47-095-02277
1932
1718
3,000'
1725
897
1739
1752
1694

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 # 15-088WA
DRAWING # LUCY2HADR
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
o——⊗	Proposed Well Path
o——⊗	As Drilled Well Path

11/10/2017

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.
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