

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

API 47-017-06374 County Doddridge District Grant  
Quad Smithburg 7.5' Pad Name Misery Pad Field/Pool Name \_\_\_\_\_  
Farm name Spencer, Denzil C. et al Well Number Anne 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 4,356,835m Easting 521,637m  
Landing Point of Curve Northing 4,356,625.15m Easting 521,593.29m  
Bottom Hole Northing 4,354,535m Easting 522,436m

Elevation (ft) 1,001' 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 11/20/2013 Date drilling commenced 05/08/2014 Date drilling ceased 09/12/2014  
Date completion activities began 10/29/2014 Date completion activities ceased 02/16/2015  
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 475' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1,477'; 1,675' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft None Identified Cavem(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) No

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JK 8/28  
10/09/2015

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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	Yes
Surface	17 1/2"	13 3/8"	600'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,543'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	14,600'	New	23#; P-110	N/A	Yes
Tubing		2 3/8"	6,928'		4.7#; N-80	N/A	
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	100 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	703 sx	15.6	1.18	417	0'	8 Hrs.
Coal							
Intermediate 1	Class A	923 sx	15.6	1.18	796	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	892 sx (Lead); 1,280sx (Tail)	13.5 (Lead); 15.2 (Tail)	1.44 (Lead); 1.8 (Tail)	2,877	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 14,600' MD; 6,820' TVD (BHL); 6,846' TVD (Deepest Point Drilled) Loggers TD (ft) 14,556'  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6.079'

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 \_\_\_\_\_

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>* PLEASE SEE ATTACHED EXHIBIT 1</b>					

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)
<b>* PLEASE SEE ATTACHED EXHIBIT 2</b>								

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PRODUCING FORMATION(S)	DEPTHS	
<u>Marcellus</u>	<u>6,739' (top)</u> TVD	<u>6,928' (top)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 3,550 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas 9,243 mcfpd Oil 26 bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME 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 <sub>2</sub> S, ETC)
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	<u>0</u>		<u>0</u>		

**\* PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company, LP  
Address 2640 Reach Road City Williamsport State PA Zip 17701

Logging Company STRC  
Address 1560 Good Hope Pike City Clarksburg State WV Zip 26301

Cementing Company Allied Oil & Gas Services, LLC  
Address 1036 East Main Street City Bridgeport State WV Zip 26330

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

Please insert additional pages as applicable.

Completed by Megan Darling Telephone 303-357-7230  
Signature Megan C. Darling Title Permitting Agent Date 08/14/2015

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

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**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	29-Oct-14	14,359	14,528	60	Marcellus
2	4-Dec-14	14,159	14,328	60	Marcellus
3	4-Dec-14	13,960	14,128	60	Marcellus
4	4-Dec-14	13,760	13,928	60	Marcellus
5	5-Dec-14	13,560	13,728	60	Marcellus
6	5-Dec-14	13,360	13,529	60	Marcellus
7	5-Dec-14	13,160	13,329	60	Marcellus
8	5-Dec-14	12,961	13,129	60	Marcellus
9	6-Dec-14	12,761	12,929	60	Marcellus
10	6-Dec-14	12,561	12,729	60	Marcellus
11	6-Dec-14	12,361	12,530	60	Marcellus
12	7-Dec-14	12,161	12,330	60	Marcellus
13	7-Dec-14	11,962	12,130	60	Marcellus
14	7-Dec-14	11,762	11,930	60	Marcellus
15	7-Dec-14	11,562	11,730	60	Marcellus
16	8-Dec-14	11,362	11,531	60	Marcellus
17	8-Dec-14	11,162	11,331	60	Marcellus
18	8-Dec-14	10,962	11,131	60	Marcellus
19	8-Dec-14	10,763	10,931	60	Marcellus
20	9-Dec-14	10,563	10,731	60	Marcellus
21	9-Dec-14	10,363	10,532	60	Marcellus
22	9-Dec-14	10,163	10,332	60	Marcellus
23	9-Dec-14	9,963	10,132	60	Marcellus
24	10-Dec-14	9,764	9,932	60	Marcellus
25	10-Dec-14	9,564	9,732	60	Marcellus
26	10-Dec-14	9,364	9,533	60	Marcellus
27	10-Dec-14	9,164	9,333	60	Marcellus
28	11-Dec-14	8,964	9,133	60	Marcellus
29	11-Dec-14	8,765	8,933	60	Marcellus
30	11-Dec-14	8,565	8,733	60	Marcellus
31	12-Dec-14	8,365	8,534	60	Marcellus
32	12-Dec-14	8,165	8,334	60	Marcellus
33	12-Dec-14	7,965	8,134	60	Marcellus
34	12-Dec-14	7,766	7,934	60	Marcellus
35	13-Dec-14	7,566	7,734	60	Marcellus
36	13-Dec-14	7,366	7,534	60	Marcellus
37	13-Dec-14	7,166	7,335	60	Marcellus
38	13-Dec-14	6,966	7,135	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	3-Dec-14	59.8	7,265	6,172	4,461	187,300	7,239	N/A
2	4-Dec-14	65.7	7,372	6,072	5,105	190,700	6,427	N/A
3	4-Dec-14	63.3	7,089	5,779	5,324	224,200	6,186	N/A
4	4-Dec-14	62.5	7,022	5,771	5,119	246,500	6,563	N/A
5	5-Dec-14	64.4	6,845	9,360	5,076	245,800	6,662	N/A
6	5-Dec-14	63.3	6,940	5,376	5,010	237,600	5,877	N/A
7	5-Dec-14	62.1	7,005	5,713	5,217	247,100	6,529	N/A
8	5-Dec-14	62.8	6,738	5,713	5,310	245,900	6,502	N/A
9	6-Dec-14	62.9	6,679	5,755	5,046	244,800	6,436	N/A
10	6-Dec-14	63.0	6,893	6,070	5,406	249,800	6,453	N/A
11	6-Dec-14	62.5	6,625	6,021	5,163	246,700	6,427	N/A
12	7-Dec-14	62.7	7,266	6,059	5,347	245,500	6,500	N/A
13	7-Dec-14	63.5	6,969	6,028	5,374	247,400	6,404	N/A
14	7-Dec-14	63.1	7,165	5,676	5,687	218,000	6,955	N/A
15	7-Dec-14	62.2	6,798	5,869	5,272	224,500	6,422	N/A
16	8-Dec-14	63.1	6,518	5,537	5,272	246,900	6,353	N/A
17	8-Dec-14	62.4	6,730	5,790	5,442	247,700	6,323	N/A
18	8-Dec-14	63.3	6,875	5,364	5,391	247,100	6,335	N/A
19	8-Dec-14	62.8	6,621	5,457	4,940	245,900	6,309	N/A
20	9-Dec-14	62.9	6,775	5,547	5,131	247,700	6,289	N/A
21	9-Dec-14	64.0	6,919	5,612	5,801	247,200	6,283	N/A
22	9-Dec-14	63.7	6,567	5,449	5,429	247,700	6,221	N/A
23	9-Dec-14	64.4	6,523	5,654	5,414	245,000	6,242	N/A
24	10-Dec-14	64.5	6,485	5,418	5,282	246,000	6,250	N/A
25	10-Dec-14	63.8	6,439	5,525	5,468	247,600	6,226	N/A
26	10-Dec-14	63.9	6,509	5,398	4,865	247,800	6,191	N/A
27	10-Dec-14	64.8	6,515	5,662	5,110	240,100	6,129	N/A
28	11-Dec-14	64.0	6,564	5,333	4,930	247,800	6,213	N/A
29	11-Dec-14	70.2	6,753	5,702	5,266	225,300	5,044	N/A
30	11-Dec-14	63.9	6,345	5,910	4,725	219,500	6,118	N/A
31	12-Dec-14	64.9	6,619	5,675	5,240	226,900	6,681	N/A
32	12-Dec-14	62.8	6,529	5,624	5,157	246,300	6,102	N/A
33	12-Dec-14	62.9	6,693	5,815	4,340	243,500	6,132	N/A
34	12-Dec-14	64.0	6,266	5,208	4,373	248,200	6,052	N/A
35	13-Dec-14	63.1	6,307	5,534	5,080	244,100	6,054	N/A
36	13-Dec-14	63.1	6,356	5,522	4,736	245,900	6,146	N/A
37	13-Dec-14	62.9	6,351	5,693	4,187	246,300	6,039	N/A
38	13-Dec-14	64.4	6,196	6,210	3,886	235,600	6,492	N/A
	AVG=	63.5	6,714	5,791	5,089	9,087,900	239,806	TOTAL

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**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Fresh Water	475'	N/A	475'	N/A
Shale/ Siltstone	0	177	0	177
Shale/ Trace Coal	177	207	177	207
Shale/ Siltstone	207	257	207	257
Shale/ Trace Coal	257	277	257	277
Shale/ Sandstone	277	657	277	657
Limestone/ Siltstone	657	967	657	967
Sandstone	967	987	967	987
Shale/ Limestone/ Siltstone	987	1,117	987	1,117
Siltstone/ Sandstone	1,117	1,177	1,117	1,177
Shale/ Siltstone	1,177	1,237	1,177	1,237
Sandstone	1,237	1,257	1,237	1,257
Shale/ Siltstone	1,257	1,397	1,257	1,397
Sandstone/ Siltstone	1,397	1,542	1,397	1,542
Sandstone/ Coal	1,542	1,602	1,542	1,602
Siltstone/ Shale	1,602	1,945	1,602	1,945
Big Lime	1,945	2,074	1,945	2,074
Big Injun	2,074	2,491	2,074	2,491
Gantz Sand	2,491	2,632	2,491	2,632
Fifty Foot Sandstone	2,632	2,705	2,632	2,706
Gordon	2,705	3,051	2,706	3,052
Fifth Sandstone	3,051	3,091	3,052	3,092
Bayard	3,091	3,437	3,092	3,439
Warren	3,437	3,834	3,439	3,836
Speechley	3,834	4,080	3,836	4,082
Baltown	4,080	4,558	4,082	4,560
Bradford	4,558	5,026	4,560	5,028
Benson	5,026	5,286	5,028	5,289
Alexander	5,286	5,479	5,289	5,481
Elk	5,479	5,991	5,481	5,993
Rhinestreet	5,991	6,344	5,993	6,372
Sycamore	6,344	6,524	6,372	6,582
Middlesex	6,524	6,657	6,582	6,768
Burkett	6,657	6,684	6,768	6,815
Tully	6,684	6,739	6,815	6,928
Marcellus	6,739	NA	6,928	NA

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/3/2014
Job End Date:	12/13/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06374-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Anne Unit 2H
Longitude:	-80.74884700
Latitude:	39.36069700
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,846
Total Base Water Volume (gal):	10,071,852
Total Base Non Water Volume:	0



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## 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	ANTERO RESOURCES	Water					
			Water	7732-18-5	100.00000	89.34431	
WV Specific 40/70 mesh Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	5.73298	
			Aluminum Oxide	1344-28-1	1.10000	0.06313	
			Titanium Oxide	13463-67-7	0.10000	0.00574	
			Iron Oxide	1309-37-1	0.10000	0.00574	
WV Specific 20/40 mesh Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	3.27462	
			Aluminum Oxide	1344-28-1	1.10000	0.03606	
			Titanium Oxide	13463-67-7	0.10000	0.00328	
			Iron Oxide	1309-37-1	0.10000	0.00328	
WV Specific 100 mesh Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	0.73094	
			Aluminum Oxide	1344-28-1	1.10000	0.00805	

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			Iron Oxide	1309-37-1	0.10000	0.00073
			Titanium Oxide	13463-67-7	0.10000	0.00073
WV Specific 30/50 mesh Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia				
			Crystalline Silica, quartz	14808-60-7	99.90000	0.48740
			Aluminum Oxide	1344-28-1	1.10000	0.00537
			Titanium Oxide	13463-67-7	0.10000	0.00049
			Iron Oxide	1309-37-1	0.10000	0.00049
HCl Acid (12.5-18.0%), 22 Baume	Nabors Completion and Production Services	Bulk Acid				
			Water	7732-18-5	87.50000	0.18337
			Hydrochloric Acid	7647-01-0	18.00000	0.03772
LSG-100L	Nabors Completion and Production Services	Gelling Agents				
			Petroleum Distillates	64742-47-8	70.00000	0.07405
WFR-6W	Nabors Completion and Production Services	Friction Reducer				
			Anionic Water-Soluble Polymer Emulsion	Proprietary	100.00000	0.06751
Super TSC-LT	Nabors Completion and Production Services	Paraffin & Scale Additives				
			100% Non-Hazardous Mixture	Proprietary	100.00000	0.01466
AQUCAR DB 20	Nabors Completion and Production Services	Biocides				
			Polyethylene glycol	25322-68-3	54.50000	0.00818
			2,2-Dibromo-3-nitrilo-propionamide (DBNPA)	10222-01-2	20.00000	0.00300
			Sodium bromide	7647-15-6	4.00000	0.00060
			Dibromoacetonitrile	3252-43-5	3.00000	0.00045
Calcium Chloride (CaCl2)	Nabors Completion and Production Services	Cement Accelerators				
			Calcium Chloride	10043-52-4	100.00000	0.00303
Super GREEN SOLV-M	Nabors Completion and Production Services	Paraffin & Scale Additives				
			Aliphatic Hydrocarbons	Proprietary	95.00000	0.00178
			Dodecane	Proprietary	14.00000	0.00026
			tetradecane	Proprietary	11.00000	0.00021
			Tridecane	Proprietary	9.00000	0.00017
			Undecane	Proprietary	8.00000	0.00015
OB-2 LT	Nabors Completion and Production Services	Gel Breakers				
			Ammonium Persulfate	7727-54-0	85.00000	0.00108

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			Crystalline Silica (in the form of quartz)	14808-60-7	10.00000	0.00013
Acid Inhibitor 2 (AI-2)	Nabors Completion and Production Services	Acid Corrosion Inhibitors				
			Propargyl Alcohol	107-19-7	40.00000	0.00016
			Isopropyl Alcohol	67-63-0	40.00000	0.00016
			Glycol Ethers	111-46-6	40.00000	0.00016
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000	0.00004
EB-4L	Nabors Completion and Production Services	Gel Breakers				
			Ethylene Glycol	107-21-1	40.00000	0.00016
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.						
Other Ingredients	Nabors Completion and Production Services	Other Ingredients				
			Copolymer	Proprietary	100.00000	0.06751
			guar gum	9000-30-0	50.00000	0.05289
			Water	7732-18-5	40.00000	0.02700
			isoparaffinic Solvent	64742-47-8	26.00000	0.01755
			Water	7732-18-5	60.00000	0.00880
			Proprietary	Proprietary	50.00000	0.00733
			Water	7732-18-5	32.00000	0.00480
			Ethylene Glycol	107-21-1	4.00000	0.00270
			Ethoxylated alcohols	Proprietary	4.00000	0.00270
			Proprietary	Proprietary	15.00000	0.00220
			Proprietary	Proprietary	15.00000	0.00220
			Proprietary	Proprietary	15.00000	0.00220
			Surfactant	68439-51-0	2.00000	0.00212
			Crystalline Silica (in the form of quartz)	14808-60-7	2.00000	0.00212
			Surfactant Blend	Proprietary	3.00000	0.00203
			Proprietary	Proprietary	100.00000	0.00041
			Sugar	57-50-1	100.00000	0.00041
			Water	7732-18-5	100.00000	0.00021
			Water	7732-18-5	48.00000	0.00019
			Alkali Chloride salt	Proprietary	15.00000	0.00019
			Sodium Chloride	7647-14-5	5.00000	0.00015
			Potassium Chloride	7447-40-7	5.00000	0.00015
			Monobromo-3-nitropropionamide	1113-55-9	1.00000	0.00015
			2,2-Dibromomalonamide	73003-80-2	1.00000	0.00015
			2-Propenamide as residual	79-06-1	0.10000	0.00007
			2-Butoxyethanol	111-76-2	13.00000	0.00005
			Proprietary	Proprietary	10.00000	0.00004
			Water	7732-18-5	1.00000	0.00003
			Proprietary	Proprietary	1.00000	0.00000

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17-06374

		Proprietary	Proprietary	0.99000	0.00000	
		Proprietary	Proprietary	1.00000	0.00000	
		Proprietary	Proprietary	1.00000	0.00000	
		Proprietary	Proprietary	1.00000	0.00000	
		Organophylic Clay	68953-58-2			
		Proprietary	Proprietary	0.02000		

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water  
\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

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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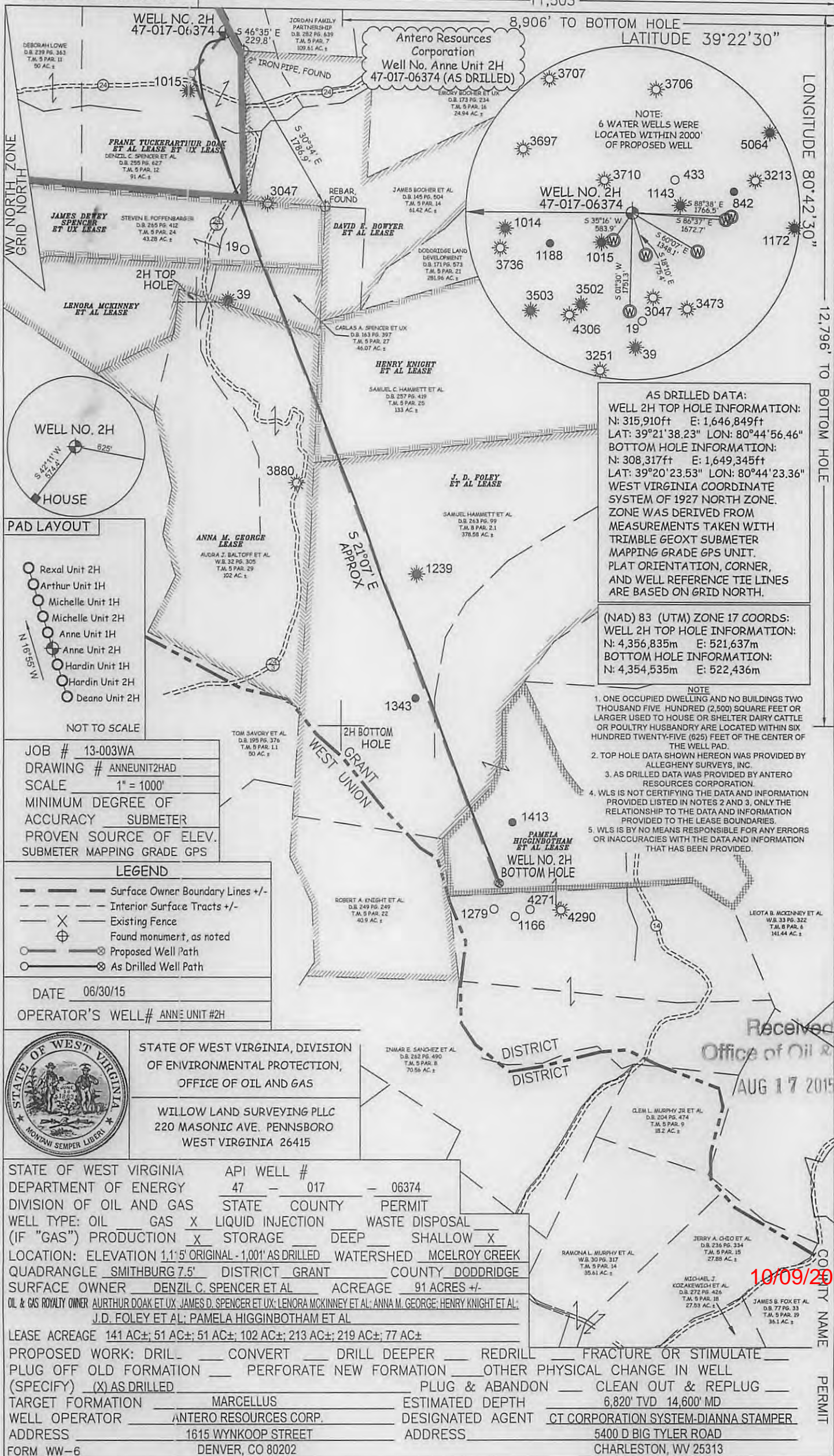


LATITUDE 39°22'30"

11,503'

8,906' TO BOTTOM HOLE  
LATITUDE 39°22'30"

5,238'  
LONGITUDE 80°42'30"  
12,796' TO BOTTOM HOLE  
LONGITUDE 80°42'30"



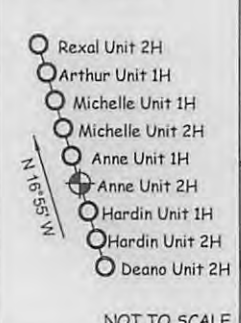
**AS DRILLED DATA:**  
**WELL 2H TOP HOLE INFORMATION:**  
 N: 315,910ft E: 1,646,849ft  
 LAT: 39°21'38.23" LON: 80°44'56.46"  
**BOTTOM HOLE INFORMATION:**  
 N: 308,317ft E: 1,649,345ft  
 LAT: 39°20'23.53" LON: 80°44'23.36"  
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM 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: 4,356,835m E: 521,637m  
**BOTTOM HOLE INFORMATION:**  
 N: 4,354,535m E: 522,436m

- NOTE**
- ONE OCCUPIED DWELLING AND NO 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.
  - TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
  - AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
  - 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.
  - WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



**PAD LAYOUT**



JOB # 13-003WA  
 DRAWING # ANNEUNIT2HAD  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY SUBMETER  
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

**LEGEND**

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

DATE 06/30/15  
 OPERATOR'S WELL# ANNE UNIT #2H



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

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

API WELL # 47 - 017 - 06374

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

LOCATION: ELEVATION 1,150' ORIGINAL - 1,001' AS DRILLED WATERSHED MCELROY CREEK  
 QUADRANGLE SMITHBURG 7.5' DISTRICT GRANT COUNTY DODDRIDGE

SURFACE OWNER DENZIL C. SPENCER ET AL ACREAGE 91 ACRES +/-  
 OIL & GAS ROYALTY OWNER ARTHUR DOAK ET UX; JAMES D. SPENCER ET UX; LENORA MCKINNEY ET AL; ANNA M. GEORGE; HENRY KNIGHT ET AL; J.D. FOLEY ET AL; PAMELA HIGGINBOTHAM ET AL

LEASE ACREAGE 141 AC±; 51 AC±; 51 AC±; 102 AC±; 213 AC±; 219 AC±; 77 AC±

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) (X) AS DRILLED  PLUG & ABANDON  CLEAN OUT & REPLUG

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,820' TVD 14,600' MD

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

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COUNTY NAME  
 PERMIT