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WR-35  
Rev. 8/23/13

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## WV GEOLOGICAL SURVEY MORGANTOWN, WV

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

API 47 - 017 - 06424 County Doddridge District Grant  
Quad Smithburg 7.5' Pad Name Pearl Jean Pad Field/Pool Name \_\_\_\_\_  
Farm name Pennington, Dean R., et al Well Number Zimka 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 4,348,482m Easting 528,198m  
Landing Point of Curve Northing 4,348,500.75m Easting 527,853.61m  
Bottom Hole Northing 4,350,577m Easting 527,168m

Elevation (ft) 1,141' 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 01/16/2014 Date drilling commenced 07/04/2014 Date drilling ceased 10/13/2014  
Date completion activities began 12/04/2014 Date completion activities ceased 12/08/2014  
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 108', 238' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1,253' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) No

Reviewed by:

\_\_\_\_\_

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API 47-017 - 06424 Farm name Pennington, Dean R., et al Well number Zimka 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"	40'	New	133#; J-55	N/A	Yes
Surface	17 1/2"	13 3/8"	364'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,665'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	14,696'	New	23#; P-110	N/A	Yes
Tubing		2 3/8"	7,257'		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>2</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	150 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	436 sx	15.6	1.18	253	0'	8 Hrs.
Coal							
Intermediate 1	Class A	982 sx	15.6	1.18	835	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,023 sx (Lead); 1,198 sx (Tail)	13.5 (Lead); 15.2 (Tail)	1.44 (Lead); 1.18 (Tail)	2,871	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 14,696' MD; 6,959' TVD (BHL); 6,993' TVD (Deepest Point Drilled) Loggers TD (ft) 14,649'

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

Plug back procedure N/A

Kick off depth (ft) 6,730'

\*\*This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Manser Unit 2H, API #47-017-06486). Please reference the wireline logs submitted with Form WR-35 for the Manser Unit 2H. 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 \_\_\_\_\_





API 47-017-06424 Farm Name Pennington, Dean R. et al Well Number Zimka Unit 2H

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	4-Dec-14	14,436	14,603	60	Marcellus
2	8-Jan-15	14,238	14,405	60	Marcellus
3	9-Jan-15	14,040	14,207	60	Marcellus
4	10-Jan-15	13,843	14,009	60	Marcellus
5	11-Jan-15	13,645	13,812	60	Marcellus
6	12-Jan-15	13,447	13,614	60	Marcellus
7	12-Jan-15	13,249	13,416	60	Marcellus
8	13-Jan-15	13,051	13,218	60	Marcellus
9	13-Jan-15	12,853	13,020	60	Marcellus
10	14-Jan-15	12,655	12,822	60	Marcellus
11	14-Jan-15	12,457	12,624	60	Marcellus
12	14-Jan-15	12,259	12,426	60	Marcellus
13	15-Jan-15	12,061	12,228	60	Marcellus
14	15-Jan-15	11,863	12,030	60	Marcellus
15	16-Jan-15	11,665	11,832	60	Marcellus
16	16-Jan-15	11,468	11,634	60	Marcellus
17	16-Jan-15	11,270	11,437	60	Marcellus
18	17-Jan-15	11,072	11,239	60	Marcellus
19	17-Jan-15	10,874	11,041	60	Marcellus
20	18-Jan-15	10,676	10,843	60	Marcellus
21	18-Jan-15	10,478	10,645	60	Marcellus
22	18-Jan-15	10,280	10,447	60	Marcellus
23	19-Jan-15	10,082	10,249	60	Marcellus
24	19-Jan-15	9,884	10,051	60	Marcellus
25	20-Jan-15	9,686	9,853	60	Marcellus
26	20-Jan-15	9,488	9,655	60	Marcellus
27	21-Jan-15	9,290	9,457	60	Marcellus
28	21-Jan-15	9,093	9,259	60	Marcellus
29	21-Jan-15	8,895	9,062	60	Marcellus
30	22-Jan-15	8,697	8,864	60	Marcellus
31	22-Jan-15	8,499	8,666	60	Marcellus
32	22-Jan-15	8,301	8,468	60	Marcellus
33	23-Jan-15	8,103	8,270	60	Marcellus
34	23-Jan-15	7,905	8,072	60	Marcellus
35	24-Jan-15	7,707	7,874	60	Marcellus
36	24-Jan-15	7,509	7,676	60	Marcellus
37	24-Jan-15	7,311	7,478	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	7-Jan-15	64.3	7,167	5,484	4,762	244,125	6,835	N/A
2	8-Jan-15	62.9	7,158	5,816	5,047	243,919	6,862	N/A
3	9-Jan-15	55.9	6,668	6,100	5,129	108,100	7,206	N/A
4	10-Jan-15	65.5	7,064	6,060	5,199	244,274	6,674	N/A
5	11-Jan-15	65.4	6,688	5,676	5,226	246,890	6,574	N/A
6	12-Jan-15	66.3	6,735	5,431	5,346	246,610	6,439	N/A
7	12-Jan-15	65.4	6,589	5,363	5,269	243,502	6,372	N/A
8	13-Jan-15	64.9	6,830	5,381	5,111	241,281	6,521	N/A
9	13-Jan-15	61.1	6,774	5,406	5,060	243,960	6,511	N/A
10	14-Jan-15	65.0	6,913	5,681	5,011	244,501	6,484	N/A
11	14-Jan-15	63.4	6,709	6,032	5,237	242,273	6,431	N/A
12	14-Jan-15	64.9	6,900	5,463	5,087	223,757	6,987	N/A
13	15-Jan-15	63.5	6,831	5,705	5,233	245,332	6,458	N/A
14	15-Jan-15	64.9	6,848	5,471	5,104	243,688	6,382	N/A
15	16-Jan-15	69.5	6,674	5,369	5,044	243,147	6,370	N/A
16	16-Jan-15	63.4	6,895	5,776	5,366	244,959	6,292	N/A
17	16-Jan-15	62.1	6,792	5,878	5,287	220,276	6,803	N/A
18	17-Jan-15	63.9	6,684	5,599	5,301	241,922	6,188	N/A
19	17-Jan-15	66.2	6,728	5,490	5,261	244,492	6,228	N/A
20	18-Jan-15	63.5	6,605	5,920	5,438	244,397	6,164	N/A
21	18-Jan-15	63.4	6,500	5,695	5,439	243,860	6,231	N/A
22	18-Jan-15	65.8	6,870	5,681	5,023	245,586	6,266	N/A
23	19-Jan-15	62.8	6,330	5,392	5,193	243,353	6,178	N/A
24	19-Jan-15	64.6	6,338	5,337	5,029	244,171	6,186	N/A
25	20-Jan-15	65.3	6,609	5,541	5,436	243,746	6,184	N/A
26	20-Jan-15	64.6	6,623	6,050	5,423	245,187	6,078	N/A
27	21-Jan-15	64.6	6,421	5,312	5,048	244,715	6,078	N/A
28	21-Jan-15	65.3	6,458	5,308	5,645	244,490	6,144	N/A
29	21-Jan-15	65.0	6,385	5,443	5,156	244,851	6,135	N/A
30	22-Jan-15	65.3	6,339	5,465	5,258	243,060	6,081	N/A
31	22-Jan-15	65.0	6,344	5,551	5,307	243,847	6,036	N/A
32	22-Jan-15	64.6	6,536	5,415	5,135	194,264	6,423	N/A
33	23-Jan-15	65.2	6,274	5,790	5,258	243,376	5,959	N/A
34	23-Jan-15	64.8	6,364	5,397	5,212	243,575	6,017	N/A
35	24-Jan-15	64.5	6,395	5,495	5,757	243,528	6,035	N/A
36	24-Jan-15	64.5	6,325	5,590	4,797	235,815	5,937	N/A
37	24-Jan-15	54.3	6,298	5,850	5,064	256,231	6,593	N/A
	AVG=	64.1	6,639	5,606	5,208	8,805,060	235,342	TOTAL

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API 47-017-06424 Farm Name Pennington, Dean R. et al Well Number Zimka Unit 2H

**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	108'	N/A	108'	N/A
Fresh Water	238'	N/A	238'	N/A
Shale	0	168	0	168
Shale/ Trace Coal	168	188	168	188
Shale	188	228	188	228
Sandstone/ Siltstone	228	288	228	288
Shale/ Coal	288	368	288	368
Limestone/ Shale	368	408	368	408
Siltstone/ Shale	408	568	408	568
Shale/ Coal	568	588	568	588
Siltstone/ Limestone	588	628	588	628
Shale/ Limestone	628	788	628	788
Shale/ Siltstone	788	988	788	988
Shale/ Sandstone	988	1,228	988	1,228
Sandstone	1,228	1,408	1,228	1,408
Sandstone/ Coal	1,408	1,448	1,408	1,448
Sandstone	1,448	1,688	1,448	1,688
Siltstone	1,688	1,927	1,688	1,927
Big Lime	1,927	2,053	1,927	2,053
Big Injun	2,053	2,431	2,053	2,431
Gantz Sand	2,431	2,537	2,431	2,537
Fifty Foot Sandstone	2,537	2,606	2,537	2,606
Gordon	2,606	2,939	2,606	2,939
Fifth Sandstone	2,939	2,959	2,939	2,959
Bayard	2,959	3,362	2,959	3,362
Warren	3,362	3,679	3,362	3,679
Speechley	3,679	3,993	3,679	3,993
Baltown	3,993	4,461	3,993	4,462
Bradford	4,461	4,965	4,462	4,980
Benson	4,965	5,235	4,980	5,276
Alexander	5,235	5,447	5,276	5,512
Elk	5,447	5,995	5,512	6,115
Rhinstreet	5,995	6,389	6,115	6,554
Sycamore	6,389	6,680	6,554	6,878
Middlesex	6,680	6,819	6,878	7,057
Burkett	6,819	6,845	7,057	7,096
Tully	6,845	6,930	7,096	7,267
Marcellus	6,930	NA	7,267	NA

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MORGANTOWN, WV

**Hydraulic Fracturing Fluid Product Component Information Disclosure**



Job Start Date:	1/7/2015
Job End Date:	1/24/2015
State:	West Virginia
County:	Doddridge
API Number:	47-017-06424-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Zimka Unit 2H
Longitude:	-80.67304200
Latitude:	39.28524200
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,993
Total Base Water Volume (gal):	10,452,422
Total Base Non Water Volume:	0

**Hydraulic Fracturing Fluid Composition:**

Trade Name	Supplier	Purpose	Ingredients	Chemical Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Operator	Base Fluid	Fresh Water	7732-18-5	100.00000	90.29988	Density = 8.330
40/70 White	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00000	5.09721	
SAND - PREMIUM - 20/40, BULK, SK (101272933)	Halliburton	Proppant					
100 MESH	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00000	3.27604	
HCl > 10%	Halliburton	Solvent	Crystalline silica, quartz	14808-60-7	100.00000	0.75865	
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Hydrochloric	7647-01-0	100.00000	0.42904	
FR-76	Halliburton	Friction Reducer	Guar gum	9000-30-0	100.00000	0.04254	
CALCIUM CHLORIDE - FLAKE	Halliburton	Additive	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02009	
			Calcium chloride	10043-52-4	100.00000	0.00311	
			Potassium chloride	7447-40-7	5.00000	0.00016	



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LP-65	Halliburton	Scale Inhibitor	Sodium chloride	7647-14-5	2.00000	0.00006	
	Halliburton	Breaker	Ammonium chloride	12125-02-9	10.00000	0.00154	
SP BREAKER	Halliburton	Solvent	Sodium persulfate	7775-27-1	100.00000	0.00150	
LCA-1	Halliburton		Paraffinic solvent	Confidential	100.00000	0.00094	Denise Tuck, Halliburton 3000 N. Sam Houston Pkwy E., Houston, TX 77032 281-871-6226
BE-9W	Halliburton	Biocide	Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00086	
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Methanol	67-56-1	60.00000	0.00010	
			Propargyl alcohol	107-19-7	10.00000	0.00002	
Ingredients shown above are subject to 29 CFR 1910.1200(b) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
		Other Ingredient(s)					
		Other Ingredient(s)	Sodium chloride	7647-14-5		0.06026	
		Other Ingredient(s)	Acrylamide acrylate polymer	Confidential		0.02009	
		Other Ingredient(s)	Water	7732-18-5		0.01874	
		Other Ingredient(s)	Organic phosphonate	Confidential		0.00925	
		Other Ingredient(s)	Propylene glycol	57-55-6		0.00513	
		Other Ingredient(s)	Bentonite, benzyl(hydrogenated (allow alkyl) dimethylammonium stearate complex	121888-68-4		0.00213	
		Other Ingredient(s)	Surfactant mixture	Confidential		0.00043	
		Other Ingredient(s)	Silica gel	112926-00-8		0.00043	
		Other Ingredient(s)	Surfactant mixture	Confidential		0.00043	
		Other Ingredient(s)	Strontium chloride	10476-85-4		0.00016	
		Other Ingredient(s)	Formaldehyde	50-00-0		0.00015	
		Other Ingredient(s)	Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	58527-49-1		0.00005	

	Other Ingredient(s)	Alcohols, C14-C15, ethoxylated	68951-67-7	0.00005
	Other Ingredient(s)	Fatty acids, tall oil	Confidential	0.00005
	Other Ingredient(s)	Crystalline Silica, Quartz	14808-60-7	0.00004
	Other Ingredient(s)	Olefins	Confidential	0.00001
	Other Ingredient(s)	Olefins	Confidential	0.00001
	Other Ingredient(s)	Olefins	Confidential	0.00000
	Other Ingredient(s)	Olefins	Confidential	0.00000
	Other Ingredient(s)	Sodium sulfate	7757-82-6	0.00000

\* 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°17'30" 1,854'

5,209' TO BOTTOM HOLE  
LATITUDE 39°20'00"

2,372'  
LONGITUDE 80°40'00"  
10,660' TO BOTTOM HOLE  
LONGITUDE 80°40'00"

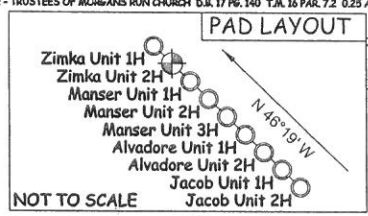
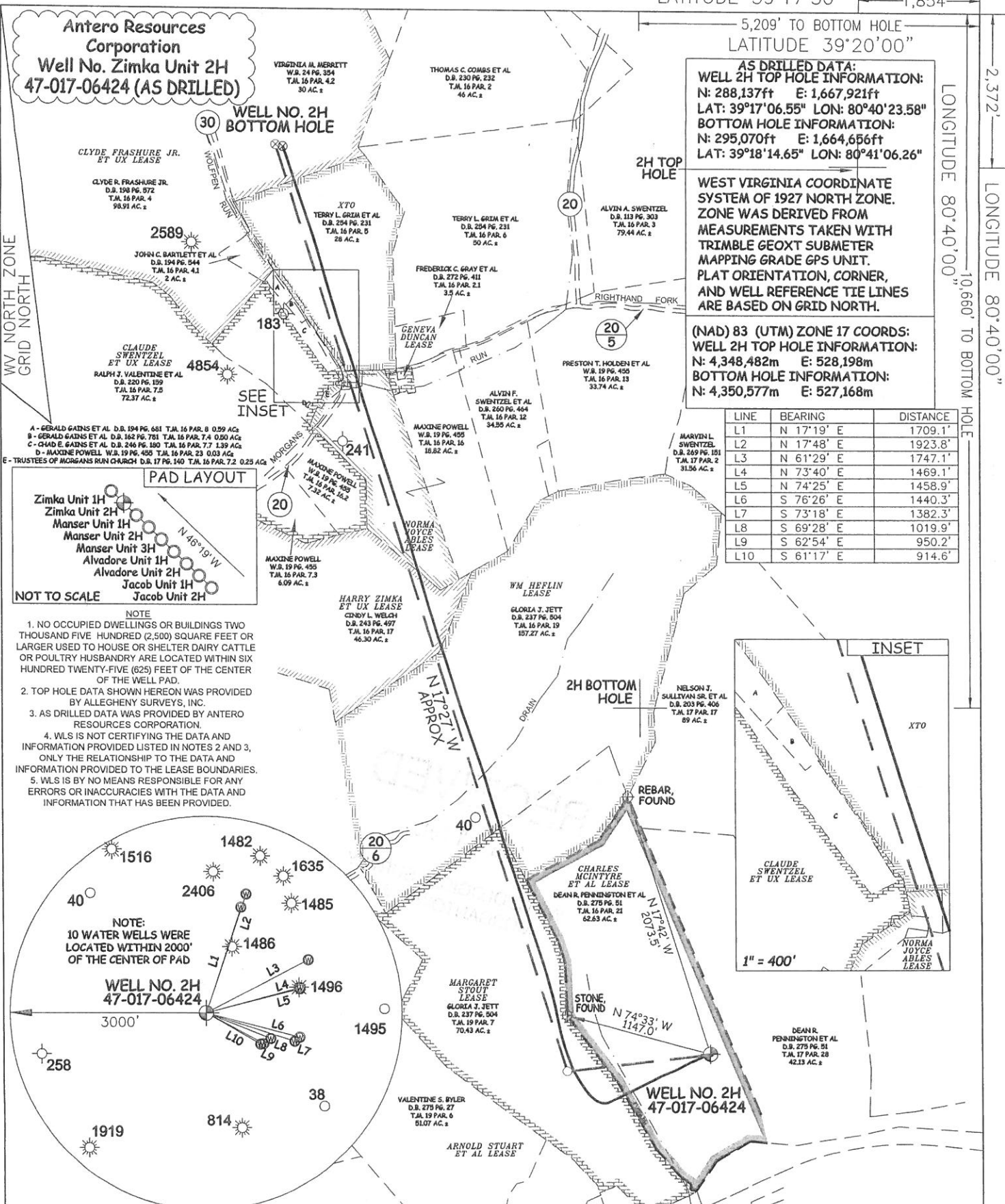
# Antero Resources Corporation Well No. Zimka Unit 2H 47-017-06424 (AS DRILLED)

**AS DRILLED DATA:  
WELL 2H TOP HOLE INFORMATION:**  
N: 288,137ft E: 1,667,921ft  
LAT: 39°17'06.55" LON: 80°40'23.58"  
**BOTTOM HOLE INFORMATION:**  
N: 295,070ft E: 1,664,656ft  
LAT: 39°18'14.65" LON: 80°41'06.26"

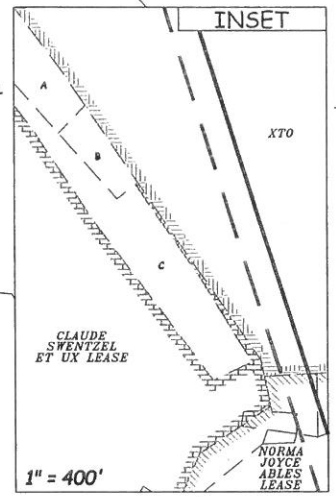
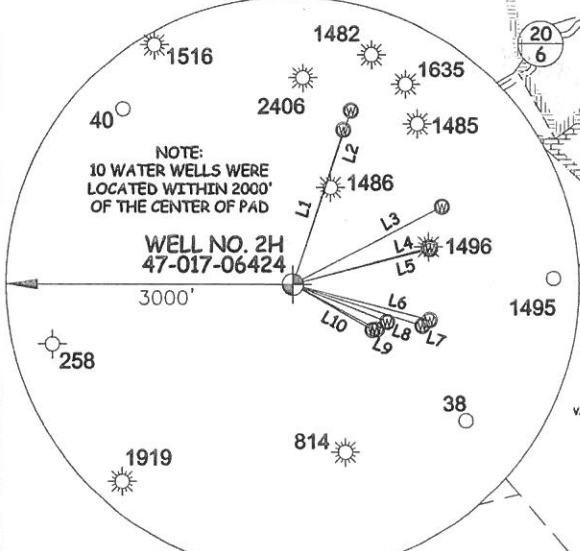
**WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.**

**(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 2H TOP HOLE INFORMATION:**  
N: 4,348,482m E: 528,198m  
**BOTTOM HOLE INFORMATION:**  
N: 4,350,577m E: 527,168m

LINE	BEARING	DISTANCE
L1	N 17°19' E	1709.1'
L2	N 17°48' E	1923.8'
L3	N 61°29' E	1747.1'
L4	N 73°40' E	1469.1'
L5	N 74°25' E	1458.9'
L6	S 76°26' E	1440.3'
L7	S 73°18' E	1382.3'
L8	S 69°28' E	1019.9'
L9	S 62°54' E	950.2'
L10	S 61°17' E	914.6'



- 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 # 13-092WA  
DRAWING # ZIMKAUNITP2HAD  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS



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 +/-  
X Existing Fence  
⊕ Found monument, as noted  
○ Proposed Well Path  
⊗ As Drilled Well Path

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 1,198' ORIGINAL - 1,141' AS DRILLED WATERSHED HEADWATERS MIDDLE ISLAND CREEK  
QUADRANGLE SMITHBURG 7.5' DISTRICT GRANT COUNTY DODDRIDGE

SURFACE OWNER DEAN R. PENNINGTON ET AL ACREAGE 62.63 ACRES +/-  
OIL & GAS ROYALTY OWNER CHARLES MCINTYRE ET AL; MARGARET STOUT; WM HEFLIN; HARRY ZIMKA ET UX; NORMA JOYCE ABLES; XTO; CLYDE FRASHURE JR. ET UX LEASE ACREAGE 70 ACRES±; 70.43 ACRES±; 120.6 ACRES±; 47 ACRES±; 21.63 ACRES±; 28 ACRES±; 131 ACRES±

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 6,959' TVD 14,696' MD

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

DATE 06/12/15  
OPERATOR'S WELL # ZIMKA UNIT #2H  
API WELL # 47 - 017 - 06424  
STATE COUNTY PERMIT

COUNTY NAME  
PERMIT