

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

API 47-095-02203 County Tyler District Centerville  
Quad Shirley 7.5' Pad Name Pierpoint Pad Field/Pool Name ----  
Farm name Lloyd C. Seckman Well Number Wall 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 4,366,953m Easting 512,160m  
Landing Point of Curve Northing 4,366,924.32m Easting 512,267.91m  
Bottom Hole Northing 4,364,857m Easting 513,111m

Elevation (ft) 1201' 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 11/19/2014 Date drilling commenced 12/4/2014 Date drilling ceased 6/26/2015  
Date completion activities began 8/30/2015 Date completion activities ceased 11/23/2015  
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 256', 267' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 889', 2253' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) No

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Reviewed by:

JAN 27 2016

DH  
02/12/2016

API 47-095 - 02203 Farm name Lloyd C. Seckman Well number Wall Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	40'	New	133#/J-55	N/A	Y
Surface	17-1/2"	13-3/8"	503'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2539'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	14,045'	New	20#/P-110	N/A	Y
Tubing		2-3/8"	6756'		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	200 sx	15.6	1.20	38 Cu. Ft.	0'	8 hrs
Surface	Class A	409 sx	15.6	1.18	349 Cu. Ft.	0'	8 hrs
Coal							
Intermediate 1	Class A	985 sx	15.6	1.18	795 Cu. Ft.	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	993 sx (Lead), 1153 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.3 (Lead), 1.85 (Tail)	2751 Cu. Ft.	-500' into Intermediate Casing	8 hrs
Tubing							

Drillers TD (ft) 14,045' MD, 6769' TVD Loggers TD (ft) 13,994'

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

Plug back procedure N/A

Kick off depth (ft) 6156'

\*\* This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Weigle Unit 1H API# 47-095-02126). Please reference the wireline logs submitted with Form WR-35 for the Weigle 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 \_\_\_\_\_

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

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WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

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WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED None



API 47- 095 - 02203 Farm name Lloyd C. Seckman Well number Wall Unit 2H

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	6665' (Top) TVD	7035' (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 6369 mcfpd Oil 58 bpd NGL --- bpd Water 0 bpd  
GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		

\*PLEASE SEE ATTACHED EXHIBIT 3

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Please insert additional pages as applicable.

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

Logging Company Rush Wellsite Services  
Address 600 Alpha Drive City Canonsburg State PA Zip 15317

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

Stimulating Company US Well Services  
Address 533 Industrial Park Drive City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Natalie Komp Telephone 303-357-6820  
Signature  Title Permitting Agent Date 1/19/2016

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

API 47-095-02203 Farm Name Lloyd C. Seckman Well Number Wall Unit 2H

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	30-Aug-15	13,788	13,955	60	Marcellus
2	12-Sep-15	13,591	13,758	60	Marcellus
3	12-Sep-15	13,393	13,560	60	Marcellus
4	13-Sep-15	13,196	13,363	60	Marcellus
5	13-Sep-15	12,998	13,165	60	Marcellus
6	13-Sep-15	12,801	12,968	60	Marcellus
7	13-Sep-15	12,603	12,770	60	Marcellus
8	14-Sep-15	12,406	12,573	60	Marcellus
9	14-Sep-15	12,209	12,375	60	Marcellus
10	14-Sep-15	12,011	12,178	60	Marcellus
11	14-Sep-15	11,814	11,980	60	Marcellus
12	14-Sep-15	11,616	11,783	60	Marcellus
13	15-Sep-15	11,419	11,585	60	Marcellus
14	15-Sep-15	11,221	11,388	60	Marcellus
15	15-Sep-15	11,024	11,190	60	Marcellus
16	15-Sep-15	10,826	10,993	60	Marcellus
17	16-Sep-15	10,629	10,795	60	Marcellus
18	16-Sep-15	10,431	10,598	60	Marcellus
19	16-Sep-15	10,234	10,400	60	Marcellus
20	17-Sep-15	10,036	10,203	60	Marcellus
21	17-Sep-15	9,839	10,005	60	Marcellus
22	18-Sep-15	9,641	9,808	60	Marcellus
23	18-Sep-15	9,444	9,610	60	Marcellus
24	18-Sep-15	9,246	9,413	60	Marcellus
25	18-Sep-15	9,049	9,215	60	Marcellus
26	19-Sep-15	8,851	9,018	60	Marcellus
27	19-Sep-15	8,654	8,820	60	Marcellus
28	19-Sep-15	8,456	8,623	60	Marcellus
29	19-Sep-15	8,259	8,425	60	Marcellus
30	20-Sep-15	8,061	8,228	60	Marcellus
31	20-Sep-15	7,864	8,030	60	Marcellus
32	20-Sep-15	7,666	7,833	60	Marcellus
33	20-Sep-15	7,469	7,635	60	Marcellus
34	20-Sep-15	7,271	7,438	60	Marcellus
35	21-Sep-15	7,074	7,240	60	Marcellus

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API 47-095-02203 Farm Name Lloyd C. Seckman Well Number Wall 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	12-Sep-15	61.8	6,608	0	4,104	228,306	7,072	N/A
2	12-Sep-15	56.6	7,980	6,118	4,689	229,224	6,242	N/A
3	12-Sep-15	50.6	6,346	6,615	4,460	228,500	7,056	N/A
4	13-Sep-15	64.7	6,417	6,363	4,796	248,961	6,463	N/A
5	13-Sep-15	65.8	6,469	5,842	4,877	246,760	6,387	N/A
6	13-Sep-15	63.8	6,470	5,851	4,661	232,660	6,137	N/A
7	13-Sep-15	62.6	6,889	5,923	4,473	147,870	6,987	N/A
8	14-Sep-15	63.9	6,499	6,220	4,446	233,185	6,972	N/A
9	14-Sep-15	65.7	6,835	6,342	3,641	224,740	6,755	N/A
10	14-Sep-15	66.4	6,750	6,329	4,387	248,240	6,369	N/A
11	14-Sep-15	64.8	6,852	5,821	3,792	164,040	6,295	N/A
12	14-Sep-15	64.5	6,585	6,001	5,764	222,250	6,921	N/A
13	15-Sep-15	64.4	6,434	5,852	4,367	249,000	6,412	N/A
14	15-Sep-15	63.9	6,417	6,092	4,410	158,320	6,837	N/A
15	15-Sep-15	65.7	6,703	5,817	3,948	191,420	6,902	N/A
16	15-Sep-15	65.1	6,524	5,870	5,743	230,750	6,180	N/A
17	16-Sep-15	64.2	6,393	6,013	4,993	245,800	6,877	N/A
18	16-Sep-15	66.2	6,461	5,844	4,055	248,215	6,303	N/A
19	16-Sep-15	72.3	6,710	5,482	5,715	231,400	6,810	N/A
20	17-Sep-15	70.1	7,001	6,589	5,440	251,900	6,253	N/A
21	17-Sep-15	71.3	6,873	5,808	4,374	218,270	6,784	N/A
22	18-Sep-15	70.7	6,434	6,055	4,495	255,350	6,424	N/A
23	18-Sep-15	70.4	6,859	6,201	4,295	218,675	5,763	N/A
24	18-Sep-15	75.8	7,034	5,809	3,920	166,425	6,724	N/A
25	18-Sep-15	64.9	6,160	5,726	5,440	207,300	6,682	N/A
26	19-Sep-15	73.6	6,724	6,273	3,841	250,880	6,137	N/A
27	19-Sep-15	72.0	7,139	5,825	4,084	175,360	6,718	N/A
28	19-Sep-15	73.9	6,330	6,455	5,146	252,100	6,181	N/A
29	19-Sep-15	73.4	6,403	5,529	4,867	252,800	6,134	N/A
30	20-Sep-15	73.9	6,318	5,640	4,914	246,900	6,656	N/A
31	20-Sep-15	73.8	6,251	6,108	4,345	248,100	6,070	N/A
32	20-Sep-15	74.2	6,095	6,304	3,819	251,320	6,032	N/A
33	20-Sep-15	74.6	6,214	6,048	5,021	253,000	6,072	N/A
34	20-Sep-15	73.2	6,386	6,455	5,068	206,800	5,707	N/A
35	21-Sep-15	72.1	6,117	6,381	4,789	254,800	6,053	N/A
	<b>AVG=</b>	<b>67.7</b>	<b>6,591</b>	<b>5,874</b>	<b>4,605</b>	<b>7,919,621</b>	<b>226,367</b>	<b>TOTAL</b>

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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	256'	N/A	256'	N/A
Fresh Water	267'	N/A	267'	N/A
Siltstone	0	296	0	296
Siltstone w/trace coal	est 296	316	est 296	316
Siltstone	est 316	336	est 316	336
Sandstone	est 336	376	est 336	376
Siltstone w/trace coal	est 376	466	est 376	466
Sandstone	est 466	716	est 466	716
Sandstone/Siltstone	est 716	956	est 716	956
Limestone/Siltstone	est 956	1,176	est 956	1,176
Siltstone/Sandstone w/trace coal	est 1176	1,216	est 1176	1,216
Siltstone	est 1216	1,356	est 1216	1,356
Sandstone	est 1356	1,496	est 1356	1,496
Siltstone w/trace coal	est 1496	1,516	est 1496	1,516
Sandstone/Siltstone	est 1516	1,916	est 1516	1,916
Sandstone w/trace coal	est 1916	1,956	est 1916	1,956
Sandstone/Siltstone	est 1956	2,110	est 1956	2,122
Big Lime	2,110	2,219	2,122	2,231
Big Injun	2,219	2,720	2,231	2,732
Gantz Sand	2,720	2,858	2,732	2,870
Fifty Foot Sandstone	2,858	2,944	2,870	2,956
Gordon	2,944	3,306	2,956	3,318
Fifth Sandstone	3,306	3,342	3,318	3,354
Bayard	3,342	3,699	3,354	3,711
Warren	3,699	4,091	3,711	4,103
Speechley	4,091	4,799	4,103	4,811
Bradford	4,799	5,213	4,811	5,225
Benson	5,213	5,443	5,225	5,455
Alexander	5,443	5,603	5,455	5,615
Elk	5,603	6,003	5,615	6,015
Rhinestreet	6,003	6,313	6,015	6,337
Sycamore	6,313	6,490	6,337	6,585
Middlesex	6,490	6,593	6,585	6,819
Burkett	6,593	6,621	6,819	6,892
Tully	6,621	6,665	6,892	7,035
Marcellus	6,665	NA	7,035	NA

\*Please note Antero determines shallow 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:	9/12/2015
Job End Date:	9/21/2015
State:	West Virginia
County:	Tyler
API Number:	47-095-02203-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Wall 2H
Longitude:	-80.85884200
Latitude:	39.45197200
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,769
Total Base Water Volume (gal):	9,898,029
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	Antero Resources	Base Fluid	Water	7732-18-5	100.00000	90.79485	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	8.71066	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.16839	
			Hydrogen Chloride	7647-01-0	18.00000	0.04022	
LGC-15	U.S. Well Services	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.08229	
			Petroleum Distillates	64742-47-8	60.00000	0.07793	
			Suspending agent (solid)	14808-60-7	3.00000	0.01258	
			Surfactant	68439-51-0	3.00000	0.00494	
WFRA-405	U.S. Well Services	Friction Reducer	Anionic Polyacrylamide	Proprietary	40.00000	0.02655	
			Water	7732-18-5	40.00000	0.02655	
			Sodium Chloride	7647-14-5	20.00000	0.01328	
			Petroleum Distillates	64742-47-8	20.00000	0.01069	
			Ethoxylated alcohol blend	Proprietary	5.00000	0.00332	

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SI-1100	U.S. Well Services	Scale Inhibitor				
			Water	7732-18-5	80.00000	0.01011
			Ethylene Glycol	107-21-1	25.00000	0.00357
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00149
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	7.50000	0.00128
			Phosphino carboxylic acid polymer	71050-62-9	5.00000	0.00082
			Hexamethylene triamine penta (methylene phosphonic acid)	34690-00-1	5.00000	0.00082
			Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5	2.00000	0.00033
K-BAC 1020	U.S. Well Services	Anti-Bacterial Agent				
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00425
			Deionized Water	7732-18-5	28.00000	0.00243
AP One	U.S. Well Services	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00234
AI-301	U.S. Well Services	Acid Corrosion Inhibitors				
			Diethylene Glycol	111-46-6	30.00000	0.00013
			Methenamine	100-97-0	20.00000	0.00010
			Hydrogen Chloride	7647-01-0	10.00000	0.00004
			Polyethylene polyamine	68603-67-8	10.00000	0.00004
			Coco amine	61791-14-8	5.00000	0.00002
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.						

\* 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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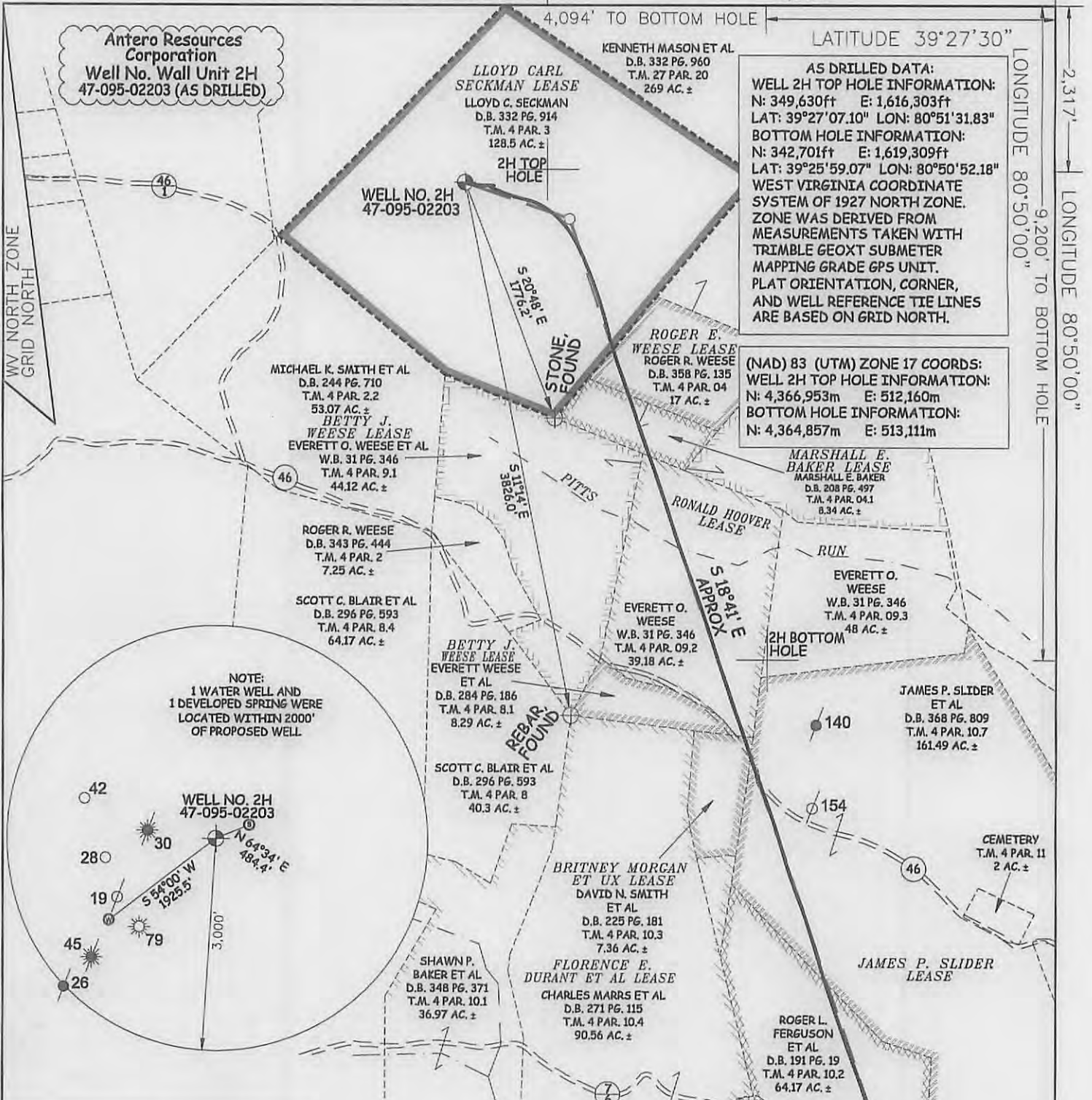


LATITUDE 39°27'30"

7,203'

LATITUDE 39°27'30"

LONGITUDE 80°50'00"  
LONGITUDE 80°50'00"  
2,317'  
9,200' TO BOTTOM HOLE



Antero Resources Corporation  
Well No. Wall Unit 2H  
47-095-02203 (AS DRILLED)

AS DRILLED DATA:  
WELL 2H TOP HOLE INFORMATION:  
N: 349,630ft E: 1,616,303ft  
LAT: 39°27'07.10" LON: 80°51'31.83"  
BOTTOM HOLE INFORMATION:  
N: 342,701ft E: 1,619,309ft  
LAT: 39°25'59.07" LON: 80°50'52.18"  
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: 4,366,953m E: 512,160m  
BOTTOM HOLE INFORMATION:  
N: 4,364,857m E: 513,111m

NOTE:  
1 WATER WELL AND  
1 DEVELOPED SPRING WERE  
LOCATED WITHIN 2000'  
OF PROPOSED WELL



47 - 095 - 02203  
STATE COUNTY PERMIT



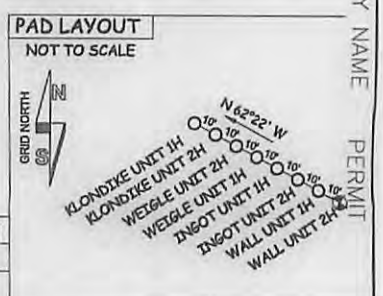
STATE OF WEST VIRGINIA, DIVISION  
OF ENVIRONMENTAL PROTECTION,  
OFFICE OF OIL AND GAS  
  
WILLOW LAND SURVEYING PLLC  
220 MASONIC AVE. PENNSBORO  
WEST VIRGINIA 26415

JOB # 14-057WA  
DRAWING # WALL2HAD  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS  
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

LEGEND  
- - - Surface Owner Boundary Lines +/-  
- - - Interior Surface Tracts +/-  
X Existing Fence  
⊕ Found monument, as noted  
○ Proposed Well Path  
⊗ As Drilled Well Path  
  
DATE 09/11/15  
OPERATOR'S WELL# WALL UNIT #2H

NOTE  
1. 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.  
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.

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
(IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1,216' ORIGINAL - 1,201' AS DRILLED WATERSHED OUTLET MIDDLE ISLAND CREEK  
QUADRANGLE SHIRLEY 7.5' DISTRICT CENTERVILLE COUNTY TYLER  
SURFACE OWNER LLOYD C. SECKMAN ACREAGE 128.5 ACRES +/-  
OIL & GAS ROYALTY OWNER LLOYD CARL SECKMAN; ROGER E. WEESE; MARSHALL E. BAKER LEASE ACREAGE 128.5 AC ±; 17 AC ±; 8.333 AC ±;  
RONALD HOOVER; BRITNEY MORGAN ET UX; JAMES P. SLIDER; ROGER L. FERGUSON 39.18 AC ±; 7.36 AC ±; 161.714 AC ±; 64.17 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 6,769' TVD 14,045' MD  
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM  
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313



COUNTY NAME PERMIT

02/12/2016





Antero Resources  
1615 Wynkoop Street  
Denver, CO 80202  
Office 303.357.7310  
Fax 303.357.7315

January 21, 2016

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
Attn: John Kearney  
601 57<sup>th</sup> Street  
Charleston, WV 25304

Mr. Kearney:

Please find enclosed the Well Operator's Report of Well Work, Form WR-35 (including the Directional Survey and FracFocus report) and Discharge Monitoring Report Form WR-34 for the following wells:

- Wall Unit 1H (API# 47-095-02202) – Pierpoint Pad
- Wall Unit 2H (API# 47-095-02203) – Pierpoint Pad
- Weigle Unit 2H (API# 47-095-02215) – Pierpoint Pad

The As-Drilled Survey Plat and corresponding logs for these wells were submitted with the INTERIM Well Operator's Report of Well Work on October 30, 2015.

If you have any questions please feel free to contact me at (303) 357-6820.

Sincerely,

A handwritten signature in blue ink that reads "Natalie Komp".

Natalie Komp  
Permitting Representative  
Antero Resources Corporation

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Enclosures

02/12/2016

\*Antero is submitting an "Interim" Form WR-35 showing the well work that has been completed to date. This well has been drilled to TD, but is waiting on completion operations, which are currently deferred at this time. We will follow up with the "Final" Form WR-35 & WR-34 within 90 days of completion.

WR-35  
Rev. 8/23/13

Page \_\_\_ of \_\_\_

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

API 47-095-02203 County Tyler District Centerville  
Quad Shirley 7.5' Pad Name Pierpoint Pad Field/Pool Name -----  
Farm name Lloyd C. Seckman Well Number Wall 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 4,366,953m Easting 512,160m  
Landing Point of Curve Northing 4,366,924.32m Easting 512,267.91m  
Bottom Hole Northing 4,364,857m Easting 513,111m

Elevation (ft) 1201' 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  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 11/19/2014 Date drilling commenced 12/4/2014 Date drilling ceased 6/26/2015  
Date completion activities began WOC Date completion activities ceased WOC  
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 256', 267' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 889', 2253' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) No

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Reviewed by:   
12-1-15

02/12/2016



API 47-095 - 02203 Farm name Lloyd C. Seckman Well number Wall 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"	503'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2539'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	14,045'	New	20#; P-110	N/A	Yes
Tubing							
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	200 sx	15.60	1.20	38 Cu. Ft.	0'	8 Hrs.
Surface	Class A	409 sx	15.60	1.18	349 Cu. Ft.	0'	8 Hrs.
Coal							
Intermediate 1	Class A	985 sx	15.60	1.18	795 Cu. Ft.	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	993 sx (Lead); 1153 sx (Tail)	14.5 (Lead); 15.2 (Tail)	1.3 (Lead); 1.85 (Tail)	2751 Cu. Ft.	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 14,045' MD; 6769' TVD (BHL) Loggers TD (ft) 13,994'  
 Deepest formation penetrated Marcellus Shale Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6156'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  
 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 N/A - WOC

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS N/A - WOC

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED N/A - WOC

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 \*\*Logs will be submitted with FINAL Completion Report Form WR-35  
 WV Department of Environmental Protection

API 47-095 - 02203 Farm name Lloyd C. Seckman Well number Wall Unit 2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>*WELL IS WAITING ON COMPLETION*</b> <b>Information will be updated on FINAL WR-35 once completed</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>*WELL IS WAITING ON COMPLETION*</b> <b>Information will be updated on FINAL WR-35 once completed</b>								

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Please insert additional pages as applicable.

API 47- 095 - 02203 Farm name Lloyd C. Seckman Well number Wall Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6665' (Top)</u> TVD	<u>7035' (Top)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

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

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ 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)
	0		0		

**\* 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 \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company Nabors Completion & Production Services Co. (bought Superior)  
Address 1650 Hackers Creek City Jane Lew State WV Zip 26878

Stimulating Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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Please insert additional pages as applicable.

Completed by Natalie Komp Telephone 303-357-6820  
Signature  Title Permitting Agent Date 10/27/2015

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

**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	256'	N/A	256'	N/A
Fresh Water	267'	N/A	267'	N/A
Siltstone	0	296	0	296
Siltstone w/trace coal	est 296	316	est 296	316
Siltstone	est 316	336	est 316	336
Sandstone	est 336	376	est 336	376
Siltstone w/trace coal	est 376	466	est 376	466
Sandstone	est 466	716	est 466	716
Sandstone/Siltstone	est 716	956	est 716	956
Limestone/Siltstone	est 956	1,176	est 956	1,176
Siltstone/Sandstone w/trace coal	est 1176	1,216	est 1176	1,216
Siltstone	est 1216	1,356	est 1216	1,356
Sandstone	est 1356	1,496	est 1356	1,496
Siltstone w/trace coal	est 1496	1,516	est 1496	1,516
Sandstone/Siltstone	est 1516	1,916	est 1516	1,916
Sandstone w/trace coal	est 1916	1,956	est 1916	1,956
Sandstone/Siltstone	est 1956	2,110	est 1956	2,122
Big Lime	2,110	2,219	2,122	2,231
Big Injun	2,219	2,720	2,231	2,732
Gantz Sand	2,720	2,858	2,732	2,870
Fifty Foot Sandstone	2,858	2,944	2,870	2,956
Gordon	2,944	3,306	2,956	3,318
Fifth Sandstone	3,306	3,342	3,318	3,354
Bayard	3,342	3,699	3,354	3,711
Warren	3,699	4,091	3,711	4,103
Speechley	4,091	4,799	4,103	4,811
Bradford	4,799	5,213	4,811	5,225
Benson	5,213	5,443	5,225	5,455
Alexander	5,443	5,603	5,455	5,615
Elk	5,603	6,003	5,615	6,015
Rhinestreet	6,003	6,313	6,015	6,337
Sycamore	6,313	6,490	6,337	6,585
Middlesex	6,490	6,593	6,585	6,819
Burkett	6,593	6,621	6,819	6,892
Tully	6,621	6,665	6,892	7,035
Marcellus	6,665	NA	7,035	NA

\*Please note Antero determines shallow formation tops based on mud logs that are only run on the 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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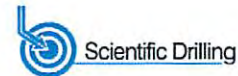
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Environmental Protection

02/12/2016





**Wall Unit 2H**  
**Tyler County WV**  
 Northing: 14326529.98  
 Easting: 1680263.81  
 As Drilled



Precision 525: GL 1201' + KB 19' @ 1220.0usft  
 Gr: 1201.0

		WELL DETAILS Wall Unit 2H			
	Ground Level:	1201.0			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14326529.98	1680263.81	39° 27' 7.104 N	80° 51' 31.825 W

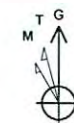
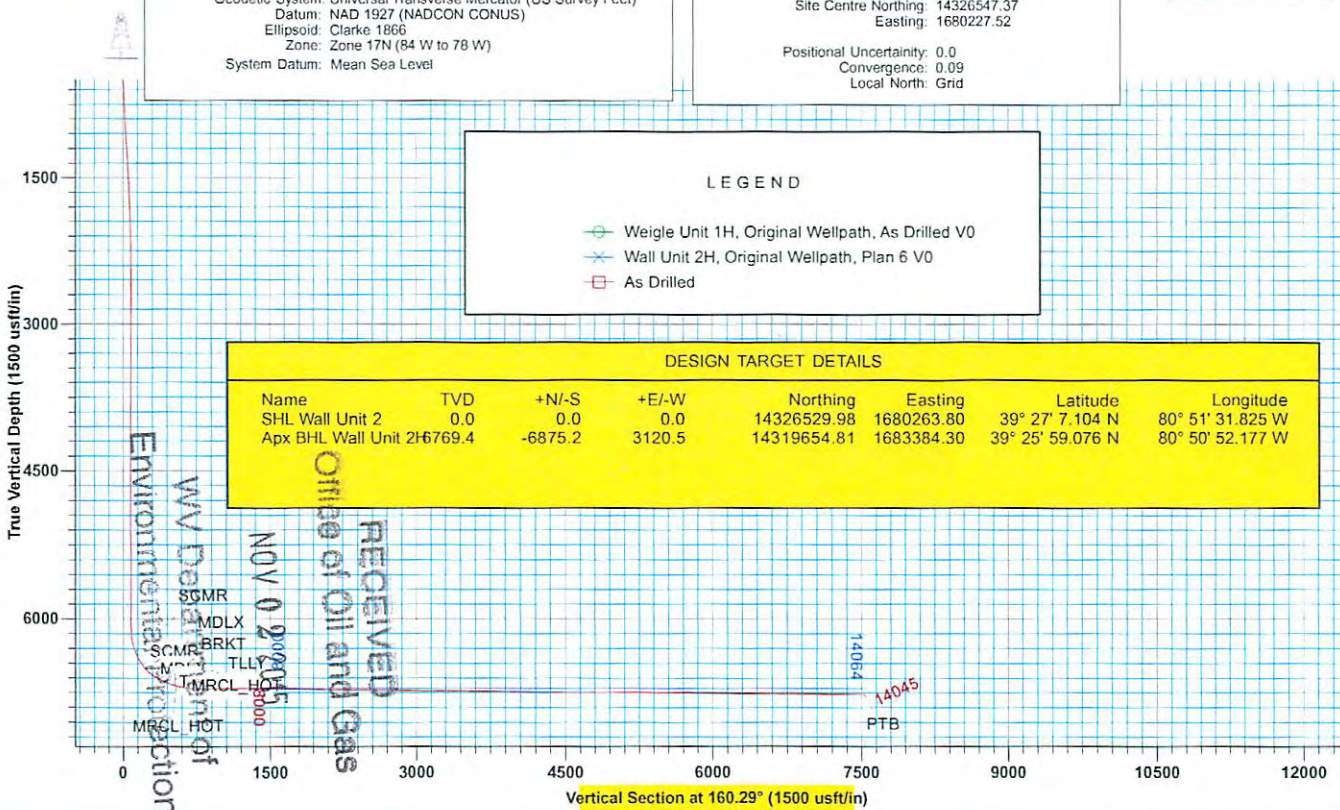
Genie Lightfoot  
 15:17, June 25 2015  
 Scientific Drilling  
 11220 NW 10th Street  
 Yukon OK 73099

**PROJECT DETAILS:** Tyler County WV  
 Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: Zone 17N (84 W to 78 W)  
 System Datum: Mean Sea Level

**SITE DETAILS:** Pierpoint Pad:Ingot/Klondike/Wall/Weigle  
 Site Centre Northing: 14326547.37  
 Easting: 1680227.52  
 Positional Uncertainty: 0.0  
 Convergence: 0.09  
 Local North: Grid

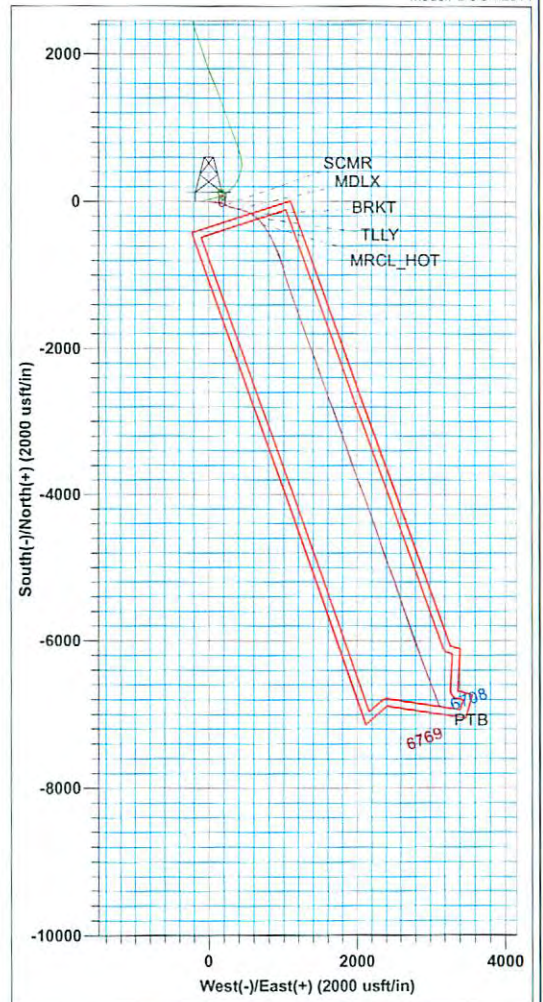
LEGEND	
	Weigle Unit 1H, Original Wellpath, As Drilled V0
	Wall Unit 2H, Original Wellpath, Plan 6 V0
	As Drilled

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Wall Unit 2	0.0	0.0	0.0	14326529.98	1680263.80	39° 27' 7.104 N	80° 51' 31.825 W
Apx BHL Wall Unit 2H	6769.4	-6875.2	3120.5	14319654.81	1683384.30	39° 25' 59.076 N	80° 50' 52.177 W



Azimuths to Grid North  
 True North: -0.09°  
 Magnetic North: -8.56°  
 Magnetic Field  
 Strength: 52220.2snT  
 Dip Angle: 66.92°  
 Date: 6/15/2015  
 Model: BGGM2014

To convert Magnetic North to Grid, Subtract 8.56°  
 To convert True North to Grid, Subtract 0.09°





# Antero

Tyler County WV  
Pierpoint Pad:Ingot/Klondike/Wall/Weigle  
Wall Unit 2H  
Original Wellpath

Design: As Drilled

## EOW Completion Report

25 June, 2015

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**Scientific Drilling** Protection

02/12/2016





<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

<b>Project</b>	Tyler County WV, Tyler Co West Virginia		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Zone 17N (84 W to 78 W)		

<b>Site</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle				
<b>Site Position:</b>		<b>Northing:</b>	14,326,547.37 usft	<b>Latitude:</b>	39° 27' 7.276 N
<b>From:</b>	Map	<b>Easting:</b>	1,680,227.52 usft	<b>Longitude:</b>	80° 51' 32.288 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.09 °

<b>Well</b>	Wall Unit 2H, Marcellus					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,326,529.98 usft	<b>Latitude:</b>	39° 27' 7.104 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,680,263.81 usft	<b>Longitude:</b>	80° 51' 31.825 W
<b>Position Uncertainty</b>		2.0 usft	<b>Wellhead Elevation:</b>	1,220.0 usft	<b>Ground Level:</b>	1,201.0 usft

<b>Wellbore</b>	Original Wellpath				
-----------------	-------------------	--	--	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	6/15/2015	-8.47	66.92	52,220

<b>Design</b>	As Drilled				
---------------	------------	--	--	--	--

<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	160.29

Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	6/25/2015	106.1	6,071.3	Survey #5 Def Gyro to KOP (Original Well)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
		6,071.4	14,045.0	Survey #2 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

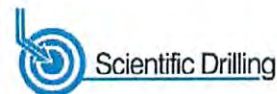
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
106.1	0.26	150.04	106.1	-0.2	0.1	0.1	0.24
132.7	0.31	159.92	132.7	-0.3	0.2	0.4	0.26
157.0	0.27	185.33	157.0	-0.4	0.2	0.5	0.55
183.1	0.33	132.86	183.1	-0.6	0.2	0.6	1.03
206.2	0.23	184.75	206.2	-0.7	0.3	0.7	1.13
232.6	0.26	196.64	232.6	-0.8	0.3	0.8	0.22
256.0	0.25	184.32	256.0	-0.9	0.2	0.9	0.24
281.2	0.26	165.71	281.2	-1.0	0.3	1.0	0.33
307.7	0.26	166.60	307.7	-1.1	0.3	1.1	0.02
331.1	0.26	138.35	331.1	-1.2	0.3	1.2	0.54

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EOW Completion Report



<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
357.1	0.28	173.23	357.1	-1.3	0.4	1.3	0.63		
383.1	0.16	195.49	383.1	-1.4	0.4	1.4	0.56		
406.6	0.20	182.64	406.6	-1.5	0.4	1.5	0.24		
432.6	0.24	165.54	432.6	-1.6	0.4	1.6	0.29		
456.0	0.21	173.80	456.0	-1.6	0.4	1.7	0.19		
482.1	0.28	162.31	482.1	-1.8	0.4	1.8	0.33		
507.7	0.56	138.29	507.7	-1.9	0.5	2.0	1.27		
533.8	0.84	126.21	533.8	-2.1	0.8	2.2	1.21		
557.3	1.15	119.40	557.3	-2.3	1.1	2.6	1.41		
583.0	1.83	111.73	583.0	-2.6	1.7	3.0	2.75		
606.5	2.32	106.27	606.5	-2.9	2.5	3.6	2.25		
632.2	2.67	107.35	632.1	-3.2	3.6	4.2	1.38		
658.4	3.09	105.21	658.3	-3.6	4.8	5.0	1.65		
681.8	3.94	102.44	681.6	-3.9	6.2	5.8	3.71		
707.8	4.61	100.81	707.6	-4.3	8.1	6.8	2.61		
731.4	5.16	99.26	731.1	-4.7	10.1	7.8	2.40		
757.6	6.05	97.65	757.2	-5.0	12.7	9.0	3.45		
781.1	6.39	97.85	780.6	-5.4	15.2	10.2	1.45		
806.8	6.79	96.97	806.1	-5.7	18.1	11.5	1.61		
833.0	7.02	97.09	832.1	-6.1	21.2	12.9	0.88		
856.6	7.17	96.63	855.5	-6.5	24.1	14.2	0.68		
882.7	7.53	97.42	881.4	-6.9	27.4	15.7	1.43		
906.4	7.96	97.02	904.9	-7.3	30.6	17.2	1.83		
932.5	8.08	97.93	930.7	-7.8	34.2	18.8	0.67		
958.1	8.27	97.59	956.1	-8.3	37.8	20.5	0.76		
982.2	8.24	97.48	980.0	-8.7	41.3	22.1	0.14		
1,008.0	8.37	97.11	1,005.4	-9.2	44.9	23.8	0.55		
1,031.3	8.58	97.93	1,028.5	-9.6	48.4	25.4	1.04		
1,056.9	8.58	97.54	1,053.8	-10.1	52.1	27.1	0.23		
1,082.6	8.63	97.51	1,079.2	-10.7	55.9	28.9	0.20		
1,108.3	8.78	97.62	1,104.6	-11.2	59.8	30.7	0.59		
1,131.4	8.87	97.24	1,127.5	-11.6	63.3	32.3	0.46		
1,157.2	8.79	97.07	1,152.9	-12.1	67.2	34.1	0.33		
1,182.9	8.82	96.00	1,178.4	-12.6	71.2	35.8	0.65		
1,206.0	8.67	96.59	1,201.2	-12.9	74.7	37.4	0.76		
1,232.1	8.68	96.68	1,227.0	-13.4	78.6	39.1	0.06		
1,257.7	8.61	96.50	1,252.3	-13.8	82.4	40.8	0.29		
1,283.5	8.52	95.41	1,277.8	-14.2	86.2	42.5	0.72		
1,306.6	8.46	95.52	1,300.6	-14.6	89.6	43.9	0.27		
1,332.3	8.44	94.63	1,326.1	-14.9	93.4	45.5	0.51		
1,357.7	8.32	94.50	1,351.2	-15.2	97.1	47.0	0.48		
1,383.0	8.22	93.46	1,376.2	-15.4	100.7	48.5	0.71		
1,406.5	8.27	92.71	1,399.5	-15.6	104.0	49.8	0.50		
1,432.2	8.30	92.14	1,424.9	-15.8	107.7	51.2	0.34		

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<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
1,457.6	8.26	91.87	1,450.0	-15.9	111.4	52.6	0.22	
1,483.4	8.37	91.72	1,475.5	-16.0	115.1	53.9	0.43	
1,506.7	8.28	90.83	1,498.6	-16.1	118.5	55.1	0.68	
1,532.3	8.22	89.78	1,523.9	-16.1	122.2	56.4	0.63	
1,558.0	8.29	89.40	1,549.4	-16.1	125.9	57.6	0.34	
1,583.3	8.36	89.94	1,574.4	-16.1	129.5	58.8	0.41	
1,606.5	8.51	89.49	1,597.4	-16.1	132.9	60.0	0.71	
1,632.3	8.35	89.79	1,622.9	-16.0	136.7	61.2	0.64	
1,658.0	8.50	89.12	1,648.3	-16.0	140.5	62.4	0.70	
1,681.2	8.60	89.10	1,671.3	-15.9	143.9	63.6	0.43	
1,707.1	8.63	88.60	1,696.8	-15.9	147.8	64.8	0.31	
1,733.3	8.61	88.61	1,722.7	-15.8	151.7	66.0	0.08	
1,758.8	7.66	88.62	1,748.0	-15.7	155.3	67.2	3.72	
1,781.7	6.72	88.05	1,770.7	-15.6	158.2	68.0	4.13	
1,806.6	6.60	88.33	1,795.5	-15.5	161.1	68.9	0.50	
1,831.9	6.13	88.25	1,820.6	-15.4	163.9	69.8	1.86	
1,857.4	5.70	89.71	1,846.0	-15.4	166.5	70.6	1.79	
1,882.7	5.49	89.78	1,871.1	-15.4	169.0	71.5	0.83	
1,908.0	5.01	90.34	1,896.3	-15.4	171.3	72.2	1.91	
1,931.3	4.71	90.73	1,919.5	-15.4	173.3	72.9	1.30	
1,956.2	4.33	91.07	1,944.4	-15.4	175.2	73.6	1.53	
1,983.2	4.16	92.42	1,971.3	-15.5	177.2	74.4	0.73	
2,008.1	3.82	93.52	1,996.2	-15.6	179.0	75.0	1.40	
2,031.0	3.51	93.25	2,019.1	-15.7	180.4	75.6	1.36	
2,058.5	3.20	93.84	2,046.5	-15.8	182.0	76.2	1.14	
2,081.3	2.94	93.79	2,069.2	-15.8	183.2	76.7	1.14	
2,106.7	2.73	95.13	2,094.6	-15.9	184.5	77.2	0.87	
2,132.1	2.38	92.93	2,120.0	-16.0	185.6	77.7	1.43	
2,157.6	2.24	95.59	2,145.4	-16.1	186.7	78.1	0.69	
2,182.9	1.97	97.95	2,170.7	-16.2	187.6	78.5	1.12	
2,208.4	1.69	94.17	2,196.2	-16.3	188.4	78.9	1.20	
2,231.3	1.60	96.33	2,219.1	-16.3	189.0	79.1	0.48	
2,256.8	1.51	97.02	2,244.6	-16.4	189.7	79.5	0.36	
2,282.7	1.35	92.26	2,270.5	-16.5	190.4	79.7	0.77	
2,308.1	1.09	101.31	2,295.9	-16.5	190.9	80.0	1.27	
2,331.1	0.96	91.42	2,318.8	-16.6	191.3	80.1	0.95	
2,356.5	0.86	94.64	2,344.3	-16.6	191.7	80.3	0.44	
2,381.5	0.69	98.20	2,369.3	-16.6	192.1	80.4	0.71	
2,407.0	0.66	97.08	2,394.8	-16.7	192.4	80.5	0.13	
2,432.5	0.57	101.15	2,420.3	-16.7	192.6	80.7	0.39	
2,456.8	0.51	95.79	2,444.6	-16.8	192.6	80.8	0.32	
2,506.6	0.25	110.32	2,494.4	-16.8	193.2	81.0	0.55	
2,531.1	0.17	121.57	2,518.9	-16.9	193.3	81.1	0.37	
2,558.0	0.21	112.12	2,545.8	-16.9	193.3	81.1	0.19	
2,581.8	0.16	117.66	2,569.6	-16.9	193.4	81.2	0.22	

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<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,608.4	0.08	88.46	2,596.1	-17.0	193.5	81.2	0.37
2,632.5	0.04	222.71	2,620.2	-17.0	193.5	81.2	0.46
2,656.2	0.10	82.74	2,643.9	-17.0	193.5	81.2	0.56
2,682.9	0.07	315.26	2,670.7	-16.9	193.5	81.2	0.57
2,706.1	0.07	286.55	2,693.9	-16.9	193.5	81.2	0.15
2,733.4	0.14	285.96	2,721.2	-16.9	193.4	81.2	0.26
2,757.0	0.10	285.85	2,744.8	-16.9	193.4	81.1	0.17
2,781.6	0.10	275.29	2,769.3	-16.9	193.3	81.1	0.07
2,808.3	0.15	281.13	2,796.1	-16.9	193.3	81.1	0.19
2,832.6	0.15	299.87	2,820.4	-16.9	193.2	81.0	0.20
2,856.5	0.22	295.72	2,844.3	-16.8	193.1	81.0	0.30
2,882.5	0.17	299.28	2,870.2	-16.8	193.1	80.9	0.20
2,907.1	0.20	279.94	2,894.8	-16.8	193.0	80.9	0.28
2,933.7	0.19	292.16	2,921.5	-16.7	192.9	80.8	0.16
2,957.0	0.25	267.46	2,944.8	-16.7	192.8	80.8	0.48
2,981.2	0.24	278.13	2,969.0	-16.7	192.7	80.7	0.19
3,008.0	0.27	281.39	2,995.8	-16.7	192.6	80.7	0.12
3,032.6	0.37	275.95	3,020.4	-16.7	192.5	80.6	0.42
3,056.4	0.46	279.26	3,044.1	-16.7	192.3	80.5	0.39
3,083.6	0.46	272.48	3,071.4	-16.6	192.1	80.4	0.20
3,107.8	0.45	271.44	3,095.5	-16.6	191.9	80.4	0.05
3,132.1	0.33	265.00	3,119.9	-16.6	191.7	80.3	0.52
3,156.4	0.42	273.18	3,144.1	-16.6	191.6	80.3	0.43
3,183.3	0.40	277.04	3,171.0	-16.6	191.4	80.2	0.13
3,207.0	0.39	266.71	3,194.8	-16.6	191.2	80.1	0.30
3,233.9	0.40	274.74	3,221.7	-16.6	191.0	80.1	0.21
3,258.2	0.41	274.21	3,245.9	-16.6	190.9	80.0	0.04
3,282.4	0.39	272.83	3,270.2	-16.6	190.7	79.9	0.09
3,306.7	0.33	285.23	3,294.5	-16.6	190.5	79.9	0.40
3,331.0	0.40	275.66	3,318.8	-16.5	190.4	79.8	0.38
3,357.6	0.35	281.02	3,345.3	-16.5	190.2	79.7	0.23
3,381.4	0.47	273.24	3,369.2	-16.5	190.0	79.6	0.55
3,407.8	0.41	272.67	3,395.6	-16.5	189.8	79.5	0.23
3,431.7	0.52	266.27	3,419.5	-16.5	189.6	79.5	0.51
3,458.1	0.48	271.50	3,445.9	-16.5	189.4	79.4	0.23
3,482.1	0.45	272.26	3,469.8	-16.5	189.2	79.3	0.13
3,508.4	0.51	265.63	3,496.2	-16.5	189.0	79.3	0.31
3,532.3	0.45	270.28	3,520.0	-16.5	188.8	79.2	0.30
3,556.1	0.51	272.81	3,543.9	-16.5	188.6	79.1	0.27
3,582.6	0.41	270.27	3,570.4	-16.5	188.4	79.1	0.39
3,606.5	0.50	272.74	3,594.2	-16.5	188.2	79.0	0.39
3,632.9	0.44	270.85	3,620.7	-16.5	188.0	78.9	0.23
3,656.8	0.56	267.42	3,644.5	-16.5	187.8	78.8	0.52
3,683.2	0.44	263.15	3,671.0	-16.5	187.5	78.8	0.47

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EOW Completion Report



<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
3,707.1	0.45	266.68	3,694.9	-16.5	187.4	78.7	0.12
3,733.2	0.50	267.26	3,720.9	-16.5	187.1	78.7	0.19
3,757.0	0.53	269.65	3,744.8	-16.5	186.9	78.6	0.15
3,783.6	0.48	272.06	3,771.3	-16.5	186.7	78.5	0.20
3,807.5	0.49	271.01	3,795.2	-16.5	186.5	78.4	0.06
3,831.4	0.60	266.66	3,819.2	-16.5	186.3	78.4	0.49
3,858.5	0.54	272.64	3,846.3	-16.5	186.0	78.3	0.31
3,882.0	0.57	274.33	3,869.7	-16.5	185.8	78.2	0.15
3,906.3	0.53	270.43	3,894.1	-16.5	185.5	78.1	0.22
3,932.9	0.61	273.75	3,920.7	-16.5	185.3	78.0	0.33
3,956.8	0.56	268.73	3,944.6	-16.5	185.0	77.9	0.30
3,983.5	0.54	269.31	3,971.2	-16.5	184.8	77.8	0.08
4,006.5	0.58	266.15	3,994.3	-16.5	184.5	77.8	0.22
4,031.0	0.59	266.46	4,018.7	-16.5	184.3	77.7	0.04
4,056.8	0.58	266.67	4,044.5	-16.5	184.0	77.6	0.04
4,083.4	0.52	263.45	4,071.2	-16.6	183.8	77.6	0.25
4,107.9	0.51	266.78	4,095.6	-16.6	183.6	77.5	0.13
4,133.3	0.49	269.12	4,121.0	-16.6	183.3	77.4	0.11
4,156.4	0.57	271.92	4,144.1	-16.6	183.1	77.4	0.36
4,182.5	0.53	266.23	4,170.2	-16.6	182.9	77.3	0.26
4,206.1	0.53	270.39	4,193.8	-16.6	182.7	77.2	0.16
4,231.7	0.58	259.65	4,219.5	-16.6	182.4	77.2	0.45
4,257.8	0.53	258.39	4,245.6	-16.7	182.2	77.1	0.20
4,281.4	0.49	256.17	4,269.1	-16.7	182.0	77.1	0.19
4,307.6	0.45	253.37	4,295.3	-16.8	181.7	77.1	0.18
4,331.0	0.44	252.04	4,318.7	-16.8	181.6	77.1	0.06
4,356.6	0.46	250.11	4,344.4	-16.9	181.4	77.1	0.10
4,383.5	0.40	249.34	4,371.2	-16.9	181.2	77.1	0.22
4,407.1	0.45	246.97	4,394.9	-17.0	181.0	77.1	0.22
4,433.0	0.36	232.32	4,420.7	-17.1	180.9	77.1	0.53
4,457.9	0.43	261.85	4,445.6	-17.2	180.7	77.1	0.86
4,482.7	0.43	251.82	4,470.5	-17.2	180.5	77.1	0.30
4,508.0	0.43	244.57	4,495.7	-17.3	180.4	77.1	0.22
4,531.6	0.40	251.46	4,519.3	-17.3	180.2	77.1	0.25
4,558.0	0.43	263.35	4,545.7	-17.4	180.0	77.1	0.34
4,582.8	0.44	248.99	4,570.5	-17.4	179.8	77.1	0.44
4,607.3	0.43	247.94	4,595.0	-17.5	179.7	77.1	0.05
4,631.3	0.50	234.82	4,619.0	-17.6	179.5	77.1	0.53
4,657.9	0.41	236.61	4,645.6	-17.7	179.4	77.1	0.34
4,681.9	0.42	244.27	4,669.6	-17.8	179.2	77.1	0.23
4,706.4	0.46	237.76	4,694.1	-17.9	179.0	77.1	0.26
4,733.4	0.44	247.94	4,721.1	-18.0	178.8	77.1	0.22
4,757.9	0.49	237.66	4,745.6	-18.1	178.6	77.1	0.40
4,782.4	0.52	232.63	4,770.1	-18.2	178.5	77.1	0.22

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<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,806.9	0.52	240.30	4,794.6	-18.3	178.3	77.4	0.28
4,831.9	0.54	236.98	4,819.6	-18.4	178.1	77.4	0.15
4,856.4	0.52	236.75	4,844.1	-18.6	177.9	77.5	0.08
4,882.6	0.50	235.04	4,870.3	-18.7	177.7	77.5	0.10
4,906.7	0.54	233.53	4,894.4	-18.8	177.5	77.6	0.18
4,933.0	0.52	230.66	4,920.7	-19.0	177.3	77.7	0.13
4,957.4	0.47	240.42	4,945.1	-19.1	177.2	77.7	0.40
4,981.5	0.49	243.82	4,969.2	-19.2	177.0	77.8	0.14
5,007.6	0.55	236.85	4,995.3	-19.3	176.8	77.8	0.33
5,031.7	0.50	241.27	5,019.4	-19.4	176.6	77.8	0.27
5,056.2	0.59	236.48	5,043.9	-19.5	176.4	77.9	0.41
5,082.4	0.55	241.01	5,070.1	-19.7	176.2	77.9	0.23
5,106.5	0.57	234.99	5,094.2	-19.8	176.0	78.0	0.26
5,133.0	0.46	244.97	5,120.7	-19.9	175.8	78.0	0.53
5,156.9	0.42	240.41	5,144.6	-20.0	175.6	78.1	0.22
5,183.0	0.51	228.06	5,170.7	-20.1	175.4	78.1	0.51
5,206.8	0.54	242.34	5,194.5	-20.3	175.3	78.2	0.56
5,233.0	0.61	236.18	5,220.7	-20.4	175.0	78.2	0.36
5,257.1	0.57	236.71	5,244.8	-20.5	174.8	78.3	0.17
5,281.5	0.60	229.90	5,269.2	-20.7	174.6	78.4	0.31
5,307.7	0.56	233.53	5,295.4	-20.8	174.4	78.4	0.21
5,331.7	0.52	242.71	5,319.4	-21.0	174.2	78.5	0.40
5,358.1	0.56	237.99	5,345.8	-21.1	174.0	78.5	0.23
5,382.6	0.58	243.31	5,370.3	-21.2	173.8	78.6	0.23
5,406.8	0.53	235.40	5,394.5	-21.3	173.6	78.6	0.38
5,432.7	0.54	231.63	5,420.4	-21.5	173.4	78.7	0.14
5,456.9	0.50	238.52	5,444.6	-21.6	173.2	78.7	0.31
5,481.4	0.54	243.68	5,469.0	-21.7	173.0	78.8	0.25
5,507.8	0.58	238.24	5,495.5	-21.8	172.8	78.8	0.25
5,532.0	0.54	247.56	5,519.7	-21.9	172.6	78.9	0.41
5,556.3	0.60	235.16	5,543.9	-22.0	172.4	78.9	0.56
5,583.0	0.54	235.42	5,570.7	-22.2	172.2	79.0	0.22
5,607.2	0.49	233.93	5,594.9	-22.3	172.0	79.0	0.21
5,633.0	0.47	246.73	5,620.7	-22.4	171.8	79.1	0.42
5,656.7	0.47	239.31	5,644.4	-22.5	171.6	79.1	0.26
5,682.6	0.57	238.59	5,670.3	-22.6	171.4	79.1	0.39
5,706.7	0.44	252.30	5,694.4	-22.7	171.2	79.1	0.73
5,732.6	0.46	249.16	5,720.3	-22.8	171.0	79.1	0.12
5,758.0	0.55	240.44	5,745.7	-22.9	170.8	79.2	0.46
5,781.8	0.49	245.62	5,769.4	-23.0	170.6	79.2	0.32
5,808.0	0.45	237.90	5,795.6	-23.1	170.5	79.2	0.29
5,831.6	0.53	243.28	5,819.2	-23.2	170.3	79.3	0.39
5,857.4	0.41	264.13	5,845.1	-23.3	170.1	79.3	0.80
5,881.4	0.51	247.95	5,869.1	-23.3	169.9	79.2	0.68

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<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,907.2	0.47	237.74	5,894.9	-23.4	169.7	79.3	0.37
5,933.1	0.37	249.92	5,920.8	-23.5	169.5	79.3	0.52
5,956.7	0.53	244.06	5,944.4	-23.6	169.4	79.3	0.70
5,982.9	0.35	224.74	5,970.6	-23.7	169.2	79.3	0.88
6,006.5	0.43	241.51	5,994.2	-23.8	169.1	79.4	0.59
6,032.2	0.45	243.00	6,019.9	-23.9	168.9	79.4	0.09
6,056.8	0.45	265.45	6,044.5	-23.9	168.7	79.4	0.71
6,071.3	0.56	267.23	6,059.0	-23.9	168.6	79.4	0.76
6,112.0	0.89	108.65	6,099.7	-24.0	168.7	79.5	3.51
6,156.0	5.78	116.85	6,143.6	-25.1	171.0	81.3	11.14
6,201.0	10.90	115.06	6,188.1	-28.0	176.9	86.0	11.39
6,246.0	16.71	113.79	6,231.8	-32.4	186.7	93.4	12.93
6,291.0	22.03	113.59	6,274.2	-38.4	200.3	103.7	11.82
6,336.0	27.51	113.80	6,315.0	-45.9	217.6	116.6	12.18
6,356.0	29.90	113.73	6,332.6	-49.8	226.4	123.2	11.93
<b>SCMR</b>							
6,381.0	32.88	113.65	6,353.9	-55.0	238.3	132.2	11.93
6,425.0	38.51	111.41	6,389.6	-64.8	262.0	149.4	13.13
6,470.0	44.10	107.72	6,423.4	-74.7	290.0	168.2	13.55
6,515.0	48.52	106.17	6,454.5	-84.2	321.1	187.6	10.13
6,560.0	51.91	104.89	6,483.3	-93.5	354.4	207.5	7.84
6,604.0	56.64	102.71	6,509.0	-101.9	389.1	227.2	11.48
<b>MDLX</b>							
6,605.0	56.75	102.66	6,509.5	-102.1	389.9	227.6	11.48
6,650.0	62.21	102.23	6,532.4	-110.5	427.8	248.3	12.16
6,695.0	63.23	106.53	6,553.0	-120.4	466.5	270.7	8.79
6,739.0	64.75	112.69	6,572.3	-133.7	503.7	295.7	13.05
6,784.0	66.19	117.74	6,591.0	-151.1	540.7	324.6	10.70
6,829.0	66.88	122.25	6,608.9	-171.8	576.5	356.1	9.32
6,838.0	67.02	123.20	6,612.5	-176.2	583.4	362.7	9.81
<b>BRKT</b>							
6,874.0	67.62	126.97	6,626.4	-195.3	610.6	389.8	9.81
6,911.0	68.92	129.75	6,640.1	-216.7	637.5	419.0	7.83
<b>TLLY</b>							
6,919.0	69.21	130.35	6,642.9	-221.5	643.3	425.4	7.83
6,963.0	71.11	134.27	6,657.9	-249.3	673.8	462.0	9.43
7,008.0	73.59	139.10	6,671.5	-280.5	703.2	501.3	9.62
7,053.0	75.86	142.71	6,683.4	-314.2	730.6	542.2	9.24
7,054.0	75.89	142.79	6,683.6	-315.0	731.2	543.1	8.30
<b>MRCL_HOT</b>							
7,098.0	77.16	146.31	6,693.9	-349.8	756.0	584.3	8.30
7,143.0	79.36	149.83	6,703.0	-387.2	779.3	627.4	9.09
7,158.0	80.81	150.88	6,705.6	-400.1	786.6	641.9	8.87
7,173.0	82.79	150.87	6,707.7	-413.0	793.8	656.6	13.20
7,187.0	84.45	150.85	6,709.3	-425.2	800.6	670.3	11.86

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EOW Completion Report



<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,232.0	90.07	152.15	6,711.4	-464.7	822.0	714.7	12.82
7,277.0	89.36	154.83	6,711.7	-504.9	842.1	759.4	6.16
7,367.0	89.87	156.55	6,712.3	-586.9	879.2	849.1	1.99
7,456.0	90.67	158.34	6,711.9	-669.1	913.3	938.0	2.20
7,546.0	89.87	160.26	6,711.4	-753.3	945.1	1,027.9	2.31
7,635.0	89.77	161.05	6,711.7	-837.3	974.6	1,116.9	0.89
7,725.0	90.20	163.68	6,711.7	-923.1	1,001.9	1,206.9	2.96
7,815.0	88.93	164.73	6,712.4	-1,009.7	1,026.4	1,296.6	1.83
7,905.0	89.87	163.81	6,713.4	-1,096.3	1,050.8	1,386.4	1.46
7,995.0	90.13	161.01	6,713.4	-1,182.1	1,078.0	1,476.4	3.12
8,084.0	89.36	160.23	6,713.8	-1,266.0	1,107.5	1,565.3	1.23
8,174.0	90.30	159.81	6,714.0	-1,350.6	1,138.2	1,655.3	1.14
8,263.0	89.13	159.96	6,714.5	-1,434.2	1,168.8	1,744.3	1.33
8,353.0	88.99	159.89	6,715.9	-1,518.7	1,199.7	1,834.3	0.17
8,443.0	88.81	160.98	6,717.7	-1,603.5	1,229.9	1,924.3	1.23
8,532.0	88.52	162.12	6,719.7	-1,687.9	1,258.0	2,013.3	1.32
8,622.0	88.79	158.94	6,721.9	-1,772.7	1,288.0	2,103.2	3.55
8,712.0	88.72	159.31	6,723.8	-1,856.8	1,320.1	2,193.2	0.42
8,801.0	89.26	159.32	6,725.4	-1,940.0	1,351.5	2,282.2	0.61
8,891.0	89.70	159.65	6,726.2	-2,024.3	1,383.0	2,372.1	0.61
8,981.0	90.47	159.51	6,726.1	-2,108.6	1,414.4	2,462.1	0.87
9,071.0	89.36	161.71	6,726.2	-2,193.5	1,444.3	2,552.1	2.74
9,160.0	88.93	160.44	6,727.5	-2,277.7	1,473.2	2,641.1	1.51
9,250.0	89.06	162.10	6,729.1	-2,362.9	1,502.1	2,731.1	1.85
9,340.0	89.23	160.97	6,730.4	-2,448.3	1,530.6	2,821.0	1.27
9,430.0	88.72	158.84	6,732.1	-2,532.8	1,561.5	2,911.0	2.43
9,519.0	89.26	159.73	6,733.6	-2,616.0	1,593.0	3,000.0	1.17
9,609.0	90.07	159.06	6,734.2	-2,700.3	1,624.6	3,090.0	1.17
9,699.0	90.91	158.12	6,733.4	-2,784.0	1,657.5	3,179.9	1.40
9,788.0	89.80	160.50	6,732.8	-2,867.3	1,688.9	3,268.9	2.95
9,878.0	90.10	160.98	6,732.9	-2,952.3	1,718.6	3,358.9	0.63
9,968.0	88.59	160.44	6,733.9	-3,037.2	1,748.4	3,448.9	1.78
10,058.0	88.62	161.32	6,736.1	-3,122.2	1,777.8	3,538.9	0.98
10,147.0	89.36	161.65	6,737.7	-3,206.6	1,806.1	3,627.8	0.91
10,237.0	90.00	161.57	6,738.2	-3,292.0	1,834.5	3,717.8	0.72
10,327.0	90.13	160.32	6,738.1	-3,377.1	1,863.9	3,807.8	1.40
10,417.0	89.36	160.11	6,738.5	-3,461.7	1,894.3	3,897.8	0.89
10,506.0	89.80	161.60	6,739.2	-3,545.8	1,923.5	3,986.8	1.75
10,596.0	89.19	159.35	6,739.9	-3,630.6	1,952.9	4,076.8	2.59
10,686.0	88.93	159.98	6,741.4	-3,715.0	1,984.9	4,166.8	0.76
10,775.0	88.79	159.78	6,743.2	-3,798.6	2,015.5	4,253.7	0.27
10,865.0	89.16	160.04	6,744.8	-3,883.1	2,046.4	4,345.7	0.50
10,955.0	89.46	161.14	6,745.9	-3,967.9	2,076.3	4,435.7	1.27
11,044.0	89.60	160.05	6,746.6	-4,051.9	2,105.8	4,524.7	0.25

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EOW Completion Report



<b>Company:</b>	Antero	<b>Local Co-ordinate Reference:</b>	Well Wall Unit 2H
<b>Project:</b>	Tyler County WV	<b>TVD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Site:</b>	Pierpoint Pad:Ingot/Klondike/Wall/Weigle	<b>MD Reference:</b>	Precision 525: GL 1201' + KB 19' @ 1220.0usft
<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
11,134.0	89.50	159.06	6,747.3	-4,136.2	2,137.3	4,614.7	1.11	
11,223.0	89.26	159.20	6,748.3	-4,219.4	2,169.0	4,703.7	0.31	
11,313.0	90.00	159.66	6,748.9	-4,303.6	2,200.6	4,793.7	0.97	
11,403.0	90.27	159.62	6,748.7	-4,388.0	2,231.9	4,883.7	0.30	
11,492.0	88.99	161.15	6,749.2	-4,471.8	2,261.8	4,972.6	2.24	
11,582.0	89.30	162.36	6,750.6	-4,557.3	2,290.0	5,062.6	1.39	
11,671.0	89.50	162.67	6,751.5	-4,642.2	2,316.7	5,151.5	0.41	
11,761.0	89.19	162.84	6,752.5	-4,728.1	2,343.4	5,241.4	0.39	
11,851.0	89.66	160.31	6,753.4	-4,813.5	2,371.8	5,331.4	2.86	
11,940.0	89.53	160.06	6,754.1	-4,897.2	2,402.0	5,420.4	0.32	
12,030.0	89.40	157.85	6,754.9	-4,981.2	2,434.3	5,510.4	2.46	
12,120.0	89.43	157.78	6,755.8	-5,064.6	2,468.3	5,600.3	0.08	
12,209.0	89.80	160.03	6,756.4	-5,147.6	2,500.3	5,689.3	2.56	
12,299.0	89.63	161.92	6,756.9	-5,232.7	2,529.7	5,779.2	2.11	
12,389.0	90.17	161.65	6,757.0	-5,318.2	2,557.8	5,869.2	0.67	
12,478.0	89.36	162.38	6,757.4	-5,402.8	2,585.3	5,958.2	1.23	
12,568.0	89.23	162.40	6,758.5	-5,488.6	2,612.5	6,048.1	0.15	
12,658.0	89.33	160.96	6,759.6	-5,574.0	2,640.8	6,138.1	1.60	
12,747.0	89.16	161.22	6,760.8	-5,658.2	2,669.6	6,227.0	0.35	
12,837.0	89.56	161.04	6,761.8	-5,743.4	2,698.7	6,317.0	0.49	
12,927.0	89.70	160.43	6,762.4	-5,828.3	2,728.4	6,407.0	0.70	
13,016.0	89.19	160.54	6,763.3	-5,912.2	2,758.2	6,496.0	0.59	
13,106.0	89.76	158.80	6,764.1	-5,996.6	2,789.4	6,586.0	2.03	
13,196.0	90.13	159.35	6,764.2	-6,080.6	2,821.6	6,676.0	0.74	
13,285.0	90.13	159.59	6,764.0	-6,164.0	2,852.8	6,765.0	0.27	
13,375.0	89.43	158.61	6,764.3	-6,248.1	2,884.9	6,855.0	1.34	
13,465.0	89.60	160.02	6,765.1	-6,332.3	2,916.7	6,944.9	1.58	
13,554.0	90.64	160.52	6,764.9	-6,416.0	2,946.7	7,033.9	1.30	
13,644.0	89.73	158.50	6,764.6	-6,500.3	2,978.2	7,123.9	2.46	
13,733.0	89.09	158.61	6,765.5	-6,583.2	3,010.8	7,212.9	0.73	
13,823.0	88.59	158.39	6,767.3	-6,666.9	3,043.7	7,302.8	0.61	
13,913.0	89.60	160.58	6,768.8	-6,751.2	3,075.3	7,392.8	2.68	
13,983.0	89.77	159.74	6,769.1	-6,817.0	3,099.0	7,462.8	1.22	
14,045.0	89.77	159.74	6,769.4	-6,875.2	3,120.5	7,524.8	0.00	

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EOW Completion Report



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<b>Well:</b>	Wall Unit 2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Wellpath	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Oklahoma District

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,356.0	6,332.6	-49.8	226.4	SCMR
6,604.0	6,509.0	-101.9	389.1	MDLX
6,838.0	6,612.5	-176.2	583.4	BRKT
6,911.0	6,640.1	-216.7	637.5	TLLY
7,054.0	6,683.6	-315.0	731.2	MRCL_HOT
14,045.0	6,769.4	-6,875.2	3,120.5	PTB

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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LATITUDE 39°27'30"

7,203'

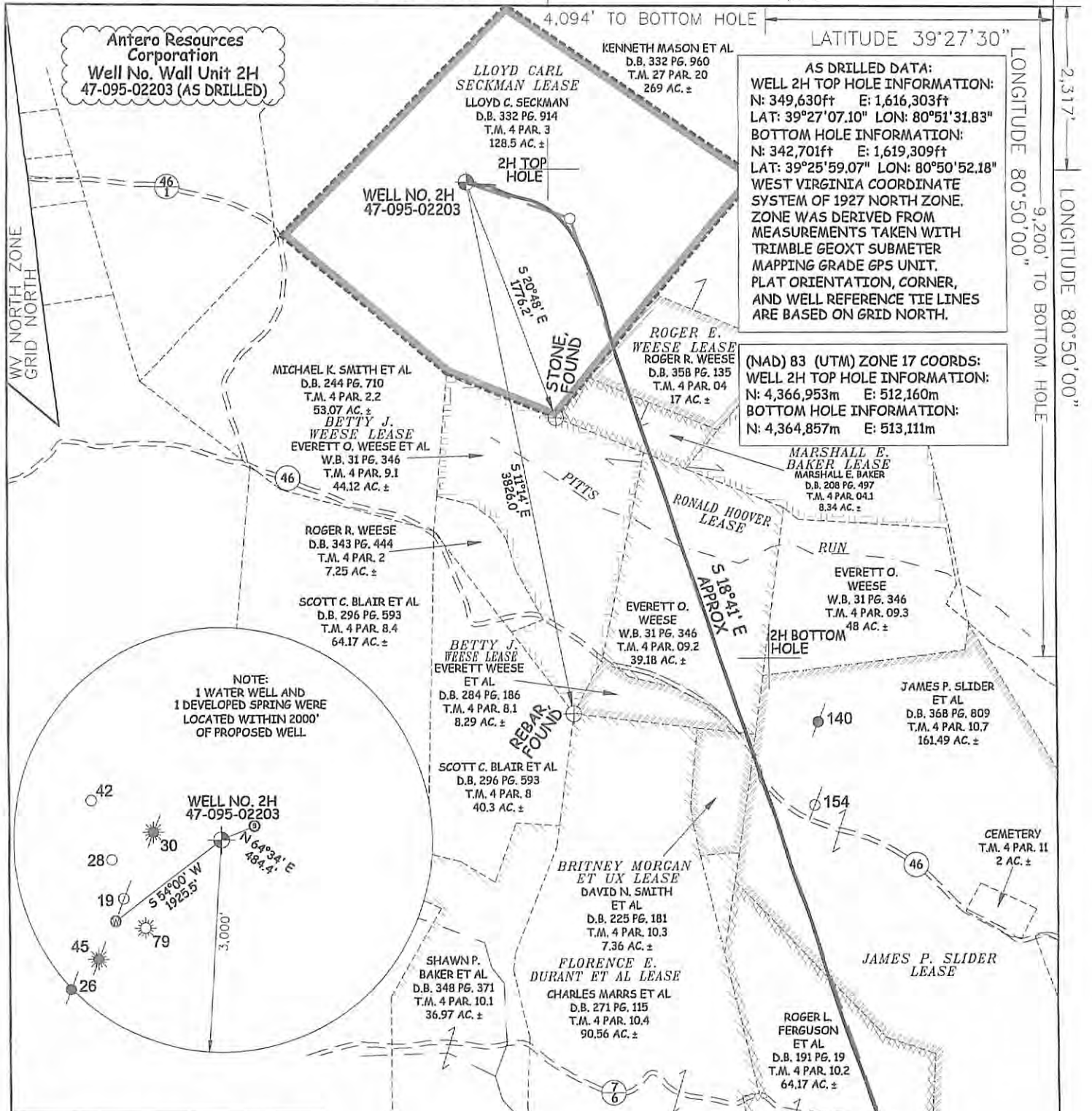
LATITUDE 39°27'30"

LONGITUDE 80°50'00"  
2,317'  
9,200' TO BOTTOM HOLE  
LONGITUDE 80°50'00"

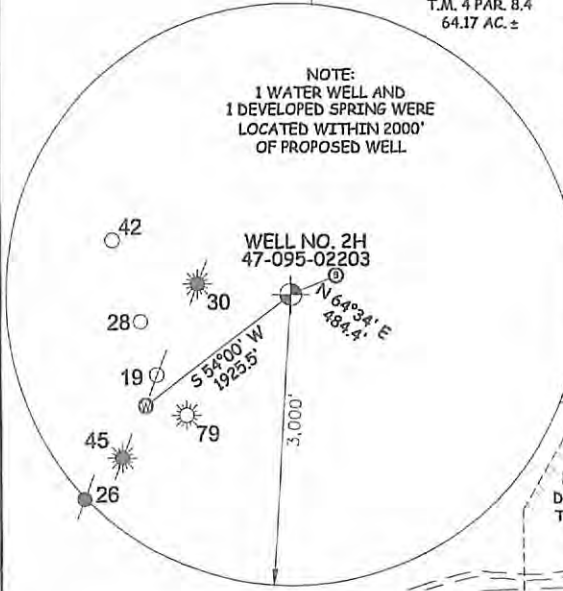
Antero Resources Corporation  
Well No. Wall Unit 2H  
47-095-02203 (AS DRILLED)

AS DRILLED DATA:  
WELL 2H TOP HOLE INFORMATION:  
N: 349,630ft E: 1,616,303ft  
LAT: 39°27'07.10" LON: 80°51'31.83"  
BOTTOM HOLE INFORMATION:  
N: 342,701ft E: 1,619,309ft  
LAT: 39°25'59.07" LON: 80°50'52.18"  
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: 4,366,953m E: 512,160m  
BOTTOM HOLE INFORMATION:  
N: 4,364,857m E: 513,111m



NOTE:  
1 WATER WELL AND  
1 DEVELOPED SPRING WERE  
LOCATED WITHIN 2000'  
OF PROPOSED WELL.



47 - 095 - 02203  
STATE COUNTY PERMIT



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 # 14-057WA  
DRAWING # WALL2HAD  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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

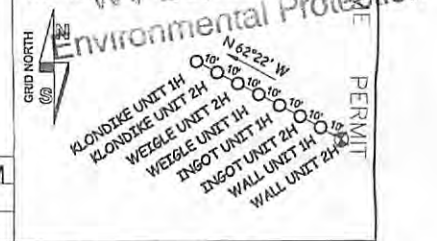
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS

DATE 09/11/15  
OPERATOR'S WELL# WALL UNIT #2H

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1,216' ORIGINAL - 1,201' AS DRILLED WATERSHED  OUTLET MIDDLE ISLAND CREEK   
 QUADRANGLE SHIRLEY 7.5' DISTRICT CENTERVILLE COUNTY TYLER  
 SURFACE OWNER LLOYD C. SECKMAN ACREAGE 128.5 ACRES +/-  
 OIL & GAS ROYALTY OWNER LLOYD CARL SECKMAN; ROGER E. WEESE; MARSHALL E. BAKER LEASE ACREAGE 128.5 AC±; 17 AC±; 8.333 AC±;  
 RONALD HOOVER; BRITNEY MORGAN ET UX; JAMES P. SLIDER; ROGER L. FERGUSON 39.18 AC±; 7.36 AC±; 161.714 AC±; 64.17 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 6,769' TVD 14,045' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DJANNA STAMPER - CT CORPORATION SYSTEM  
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

- 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  
NOT TO SCALE



NOV 02/12/2016

WV Department of Environmental Protection  
COUNTY TYPHER PERMIT