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WR-35
Rev. 8/23/13

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 47-085-10165 County Ritchie District Clay
Quad Pennsboro 7.5' Pad Name Charlene Pad Field/Pool Name -----
Farm name Linda C. Dewberry Trust Well Number Paige Unit 1H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,350,026m Easting 503,148m
Landing Point of Curve Northing 4,350,003.87m Easting 503,232.78m
Bottom Hole Northing 4,347,907m Easting 504,104m

Elevation (ft) 1118' 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 10/28/2014 Date drilling commenced 11/8/2014 Date drilling ceased 1/31/2015
Date completion activities began 3/21/2015 Date completion activities ceased 6/8/2015
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 250', 260' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1017', 1613', 3233' Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

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API 47-085 - 10165 Farm name Linda C. Dewberry Trust Well number Paige Unit 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	40'	New	94#/J-55	N/A	Y
Surface	17-1/2"	13-3/8"	358'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2544'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	13,876'	New	23#/P-110	N/A	Y
Tubing		2-3/8"	6601'		4.7#/N-80		
Packer type and depth set		N/A					

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	150 sx	15.6	1.18	38 Cu. Ft.	0'	8 Hrs.
Surface	Class A	426 sx	15.6	1.18	249 Cu. Ft.	0'	8 Hrs.
Coal							
Intermediate 1	Class A	997 sx	15.6	1.18	797 Cu. Ft.	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1006 sx (Lead), 1205 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.3 (Lead), 1.86 (Tail)	2711 Cu. Ft.	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13,876' MD, 6416' TVD (BHL), 6417' TVD (Deepest Point Drilled) Loggers TD (ft) 13,829' MD

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

Plug back procedure N/A

Kick off depth (ft) 5626'

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

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Hendershot Unit 1H API# 47-085-10060). Please reference the wireline logs submitted with Form WR-35 for the Hendershot Unit 1H. A Cement Bond Log has been included with this submittal.

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Conductor - 0
Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface
Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface
Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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MORGANTOWN, WV

API 47-085-10165 Farm Name Linda C. Dewberry Trust Well Number Paige Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	21-Mar-15	13,622	13,790	60	Marcellus
2	19-Apr-15	13,422	13,591	60	Marcellus
3	19-Apr-15	13,223	13,391	60	Marcellus
4	19-Apr-15	13,023	13,191	60	Marcellus
5	20-Apr-15	12,823	12,992	60	Marcellus
6	20-Apr-15	12,624	12,792	60	Marcellus
7	20-Apr-15	12,424	12,592	60	Marcellus
8	21-Apr-15	12,224	12,393	60	Marcellus
9	21-Apr-15	12,025	12,193	60	Marcellus
10	21-Apr-15	11,825	1,193	60	Marcellus
11	22-Apr-15	11,625	11,794	60	Marcellus
12	22-Apr-15	11,426	11,594	60	Marcellus
13	22-Apr-15	11,226	11,394	60	Marcellus
14	22-Apr-15	11,026	11,195	60	Marcellus
15	23-Apr-15	10,827	10,995	60	Marcellus
16	23-Apr-15	10,627	10,795	60	Marcellus
17	23-Apr-15	10,427	10,596	60	Marcellus
18	24-Apr-15	10,228	10,396	60	Marcellus
19	24-Apr-15	10,028	10,197	60	Marcellus
20	25-Apr-15	9,828	9,997	60	Marcellus
21	25-Apr-15	9,629	9,797	60	Marcellus
22	25-Apr-15	9,429	9,598	60	Marcellus
23	25-Apr-15	9,230	9,398	60	Marcellus
24	25-Apr-15	9,030	9,198	60	Marcellus
25	26-Apr-15	8,830	8,999	60	Marcellus
26	26-Apr-15	8,631	8,799	60	Marcellus
27	26-Apr-15	8,431	8,599	60	Marcellus
28	26-Apr-15	8,231	8,400	60	Marcellus
29	27-Apr-15	8,032	8,200	60	Marcellus
30	27-Apr-15	7,832	8,000	60	Marcellus
31	27-Apr-15	7,632	7,801	60	Marcellus
32	27-Apr-15	7,433	7,601	60	Marcellus
33	27-Apr-15	7,233	7,401	60	Marcellus
34	28-Apr-15	7,033	7,202	60	Marcellus
35	28-Apr-15	6,834	7,002	60	Marcellus
36	28-Apr-15	6,634	6,802	60	Marcellus

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MORGANTOWN, WV

API 47-085-10165 Farm Name Linda C. Dewberry Well Number Paige Unit 1H

EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	19-Apr-15	50.1	8,107	NA	5,172	12,400	6,589	N/A
2	19-Apr-15	64.1	6,694	5,332	3,980	231,900	6,572	N/A
3	19-Apr-15	65.5	6,771	5,416	4,473	240,020	6,587	N/A
4	19-Apr-15	65.0	6,797	5,488	4,437	232,860	6,440	N/A
5	20-Apr-15	64.7	6,907	5,271	4,266	213,800	7,138	N/A
6	20-Apr-15	64.8	6,164	5,406	4,070	214,000	6,617	N/A
7	20-Apr-15	64.1	6,772	5,379	3,467	242,360	6,609	N/A
8	21-Apr-15	61.8	7,670	5,551	4,780	229,400	7,053	N/A
9	21-Apr-15	64.4	6,681	5,192	4,854	239,600	6,429	N/A
10	21-Apr-15	64.1	6,532	5,644	4,777	236,520	6,389	N/A
11	22-Apr-15	65.0	6,998	5,602	4,452	138,900	7,005	N/A
12	22-Apr-15	60.0	6,580	5,657	4,871	142,500	6,485	N/A
13	22-Apr-15	64.5	6,575	5,460	4,683	235,880	6,385	N/A
14	22-Apr-15	63.1	6,515	5,548	4,717	238,600	6,374	N/A
15	23-Apr-15	65.3	6,435	5,164	4,989	239,500	6,357	N/A
16	23-Apr-15	64.5	6,492	5,480	4,859	239,100	6,447	N/A
17	23-Apr-15	65.4	6,714	5,777	4,439	218,140	6,003	N/A
18	24-Apr-15	64.5	6,381	5,522	3,574	241,040	6,323	N/A
19	24-Apr-15	64.3	6,500	6,017	4,575	233,620	6,223	N/A
20	25-Apr-15	64.6	6,528	5,539	4,663	239,660	6,278	N/A
21	25-Apr-15	64.4	6,548	5,879	3,447	186,060	6,672	N/A
22	25-Apr-15	64.3	6,625	5,602	4,227	170,200	6,478	N/A
23	25-Apr-15	64.4	6,367	5,367	4,091	234,000	6,177	N/A
24	25-Apr-15	63.9	6,264	5,143	5,296	237,520	6,186	N/A
25	26-Apr-15	64.9	6,432	5,420	4,785	238,200	6,248	N/A
26	26-Apr-15	64.8	6,428	5,443	4,454	222,600	6,639	N/A
27	26-Apr-15	65.1	6,502	5,468	4,490	202,500	6,136	N/A
28	26-Apr-15	63.2	6,492	5,548	4,829	210,060	5,733	N/A
29	27-Apr-15	63.6	6,372	5,175	4,678	226,620	6,018	N/A
30	27-Apr-15	65.6	6,321	4,988	4,957	239,200	6,154	N/A
31	27-Apr-15	65.0	6,569	5,296	4,868	212,150	6,173	N/A
32	27-Apr-15	65.1	6,641	5,285	4,065	239,800	6,156	N/A
33	27-Apr-15	64.2	6,134	5,191	4,934	237,190	6,015	N/A
34	28-Apr-15	63.7	6,176	5,241	3,873	238,700	6,104	N/A
35	28-Apr-15	64.6	6,273	5,156	4,659	216,450	5,724	N/A
36	28-Apr-15	65.1	6,555	4,769	4,463	197,450	5,468	N/A
	AVG=	63.9	6,598	5,412	4,506	7,768,500	228,384	TOTAL

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API 47-085-10165 Farm Name Linda C. Dewberry Trust Well Number Paige Unit 1H

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	250	N/A	250	N/A
Fresh Water	260	N/A	260	N/A
Shale and Siltstone	0	297	0	297
Siltstone with Trace Coal	est. 297	357	est. 297	357
Siltstone and Sandstone	est. 357	497	est. 357	497
Shale with Trace Coal	est. 497	517	est. 497	517
Shale and Siltstone	est. 517	977	est. 517	977
Sandstone	est. 977	1,017	est. 977	1,017
Shale	est. 1017	1,057	est. 1017	1,057
Sandstone	est. 1057	1,217	est. 1057	1,217
Shale with Coal	est. 1217	1,257	est. 1217	1,257
Sandstone/Siltstone/Shale	est. 1257	1,951	est. 1257	1,954
Big Lime	1,951	2,088	1,954	2,091
Big Injun	2,088	2,870	2,091	2,873
Fifty Foot Sandstone	2,870	2,966	2,873	2,969
Gordon	2,966	3,109	2,969	3,112
Bayard	3,109	3,571	3,112	3,574
Warren	3,571	4,165	3,574	4,168
Baltown	4,165	4,581	4,168	4,584
Bradford	4,581	4,983	4,584	4,986
Benson	4,983	5,201	4,986	5,203
Alexander	5,201	5,531	5,203	5,534
Elk	5,531	5,783	5,534	5,794
Rhinestreet	5,783	6,115	5,794	6,180
Sycamore	6,115	6,211	6,180	6,306
Middlesex	6,211	6,314	6,306	6,484
Burkett	6,314	6,342	6,484	6,543
Tully	6,342	6,359	6,543	6,583
Marcellus	6,359	NA	6,583	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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MORGANTOWN, WV

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/19/2015
Job End Date:	4/28/2015
State:	West Virginia
County:	Ritchie
API Number:	47-085-10165-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Paige Unit 1H
Longitude:	-80.96349200
Latitude:	39.29960800
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,417
Total Base Water Volume (gal):	9,924,688
Total Base Non Water Volume:	411,319



Frac Focus
Chemical Disclosure Registry



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	Carrier/Base Fluid	Water	7732-18-5	100.00000	90.98029	
Sand	U.S. Well Services	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	8.53889	
HCL Acid (12.6%-18.0%)	U.S. Well Services	Bulk Acid	Water	7732-18-5	87.50000	0.17246	
LGC-15	U.S. Well Services	Gelling Agents	Hydrogen Chloride	7647-01-1	18.00000	0.04115	
			Hydrated light distillate (petroleum)	64742-47-8	65.00000	0.07161	
			Guar gum	9000-30-0	50.00000	0.06852	
			Nonylphenol ethoxylated	127087-87-0	5.00000	0.00719	
WFRA-405	U.S. Well Services	Friction Reducer	Water	7732-18-5	40.00000	0.02881	
			Anionic Polyacrylamide	Proprietary	40.00000	0.02881	
			Sodium Chloride	7647-14-5	20.00000	0.01441	
			Petroleum Distillates	64742-47-8	20.00000	0.01160	
SI-1100	U.S. Well Services	Scale Inhibitor	Ethoxylated alcohol blend	Proprietary	5.00000	0.00360	

			Water	7732-18-5	80.00000	0.01027
			Ethylene Glycol	107-21-1	25.00000	0.00363
			Copolymer of Maleic and Acrylic acid	26677-99-6	10.00000	0.00151
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	7.50000	0.00130
			Phosphino carboxylic acid polymer	71050-62-9	5.00000	0.00083
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	5.00000	0.00083
			Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5	2.00000	0.00033
K-BAC 1020	J.S. Well Services	Anti-Bacterial Agent				
			Polyethylene Glycol	25322-68-3	50.00000	0.00487
			2,2-dibromo-3-nitripropionamide	10222-01-2	20.00000	0.00426
			Deionized Water	7732-18-5	30.00000	0.00261
AP One	J.S. Well Services	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00186
AI-301	J.S. Well Services	Acid Corrosion Inhibitors				
			Diethylene Glycol	111-46-6	30.00000	0.00013
			Methanamine	100-97-0	20.00000	0.00010
			Hydrogen Chloride	7647-01-0	10.00000	0.00005
			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°20'00"

1,506'

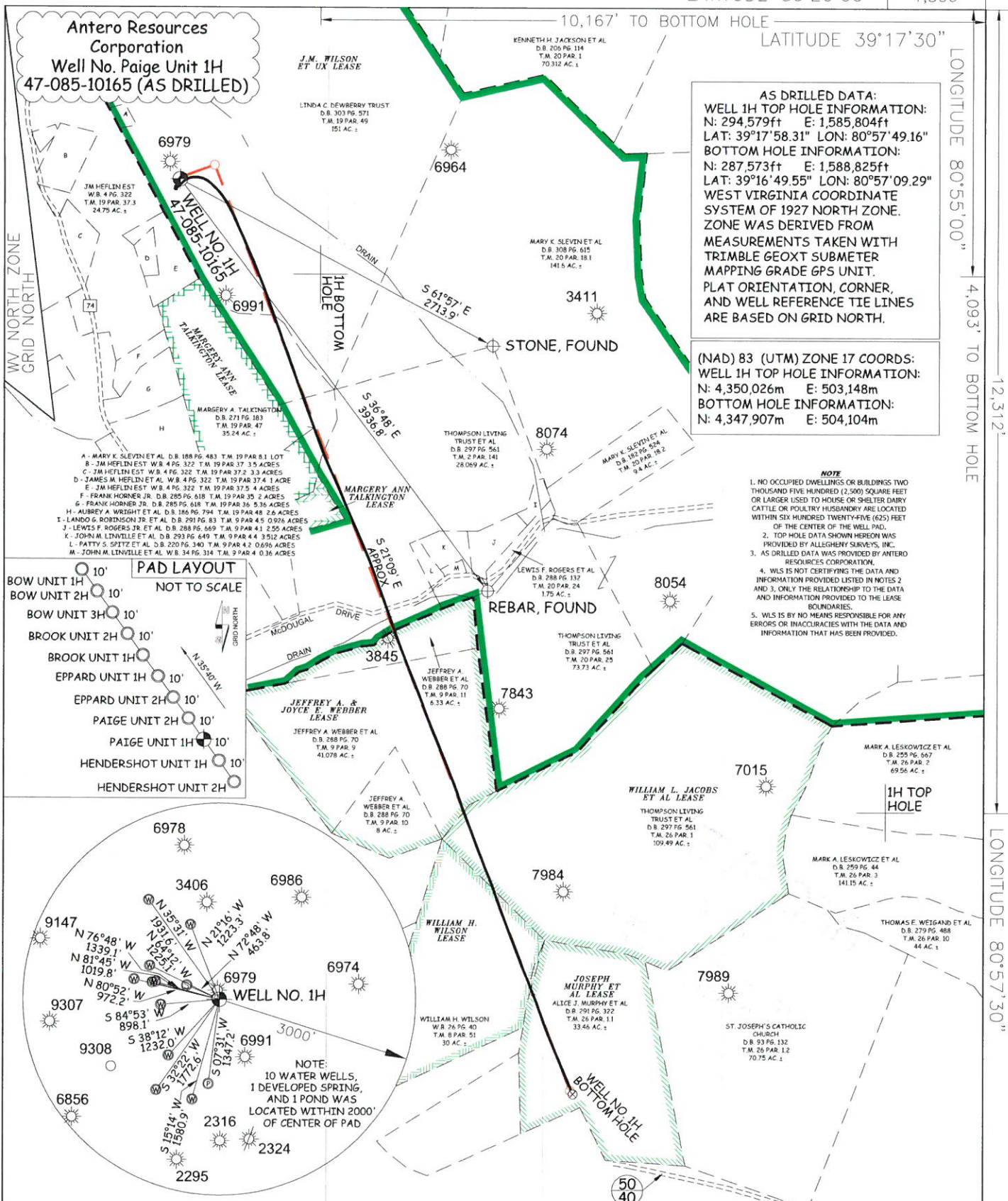
LATITUDE 39°17'30"

LONGITUDE 80°55'00"

4,093' TO BOTTOM HOLE

12,312'

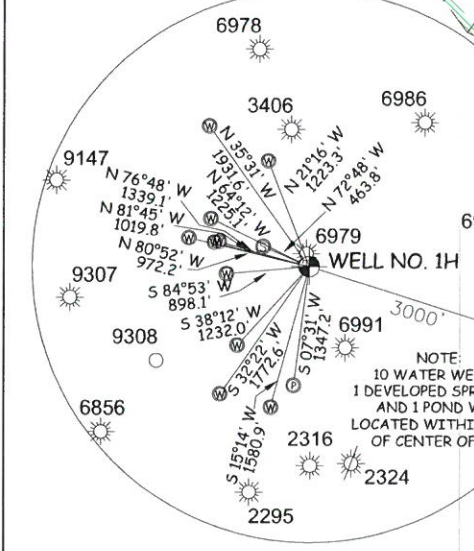
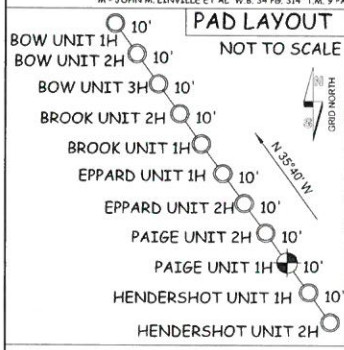
LONGITUDE 80°57'30"



AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
 N: 294,579ft E: 1,585,804ft
 LAT: 39°17'58.31" LON: 80°57'49.16"
BOTTOM HOLE INFORMATION:
 N: 287,573ft E: 1,588,825ft
 LAT: 39°16'49.55" LON: 80°57'09.29"
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
 N: 4,350,026m E: 503,148m
BOTTOM HOLE INFORMATION:
 N: 4,347,907m E: 504,104m

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 # 14-001WA
 DRAWING # PAIGE1HAD
 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
 266 HUSHERS RUN RD 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 LIQUID INJECTION WASTE DISPOSAL SHALLOW DEEP

LOCATION: ELEVATION 1,124' - ORIGINAL 1,118' - AS DRILLED QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE

SURFACE OWNER LINDA C. DEWBERRY TRUST ACREAGE 151 ACRES +/-

OIL & GAS ROYALTY OWNER J.M. WILSON ET UX; JEFFREY A. & JOYCE E. WEBBER; WILLIAM L. JACOBS ET AL; WILLIAM H. WILSON; JOSEPH MURPHY ET AL; LEASE ACREAGE 700 ACRES±; 56.325 ACRES±; 85 ACRES±; 30 ACRES±; 33 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 6,417' TVD 13,876' MD

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

DATE 07/01/15 OPERATOR'S WELL # PAIGE UNIT #1H
 API WELL # 47 - 085 - 10165
 STATE COUNTY PERMIT