

RECEIVED

JUN 26 2015

WR-35
Rev. 8/23/13

Page ___ of ___

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 47-017-06362 County Doddridge District New Milton
Quad New Milton 7.5' Pad Name Cline Pad Field/Pool Name _____
Farm name Cline, Johnnie et al Well Number Farrow 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 4,337,443m Easting 525,945m
Landing Point of Curve Northing 4,337,677.18m Easting 526,104.74m
Bottom Hole Northing 4,339,436m Easting 525,559m

Elevation (ft) 1,096' 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 10/04/2013 Date drilling commenced 11/25/2013 Date drilling ceased 05/18/2014
Date completion activities began 07/18/2014 Date completion activities ceased 11/26/2014
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 56' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 637' 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:

JUN 26 2015

WR-35
Rev. 8/23/13

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Page ___ of ___

API 47-017 - 06362

Farm name Cline, Johnnie et al

Well number Farrow 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	30"	20"	40'	New	51#; J-55	N/A	Yes
Surface	17 1/2"	13 3/8"	403'	New	48#; J-55	N/A	Yes*
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,639'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	13,652'	New	20#; L-80	N/A	Yes
Tubing		2 3/8"	7,287'		4.7#; N-80	N/A	
Packer type and depth set	N/A						

Comment Details *First attempt to cement surface casing (480 sx) failed to produce returns to surface, Inspector Doug Newlon notified on 12/25/2013. Top-off job was performed (65 sx) which was successful in bringing returns to surface.

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	196 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	545 sx*	15.6	1.18	281	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1,031 sx	15.6	1.18	827	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	945 sx (Lead); 1,076 sx (Tail)	13.5 (Lead); 15.2 (Tail)	1.44 (Lead); 1.8 (Tail)	2,638	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13,652' MD, 7,059' TVD (BHL) 7,087' TVD (Deepest Point Drilled)

Loggers TD (ft) 13,603'

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6,525'

**This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Nickers Unit 3H, API #47-017-06333). Please reference the wireline logs submitted with Form WR-35 for the Nickers Unit 3H. 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 RA; Chemical

RECEIVED

JUN 26 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47-017-06362 Farm Name Cline, Johnnie et al Well Number Farrow Unit 2H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	18-Jul-14	13,396	13,567	60	Marcellus
2	1-Sep-14	13,193	13,364	60	Marcellus
3	1-Sep-14	12,991	13,162	60	Marcellus
4	2-Sep-14	12,788	12,959	60	Marcellus
5	2-Sep-14	12,585	12,756	60	Marcellus
6	3-Sep-14	12,383	12,554	60	Marcellus
7	3-Sep-14	12,180	12,351	60	Marcellus
8	3-Sep-14	11,977	12,148	60	Marcellus
9	4-Sep-14	11,775	11,946	60	Marcellus
10	5-Sep-14	11,572	11,743	60	Marcellus
11	6-Sep-14	11,369	11,540	60	Marcellus
12	6-Sep-14	11,167	11,338	60	Marcellus
13	6-Sep-14	10,964	11,135	60	Marcellus
14	7-Sep-14	10,761	10,932	60	Marcellus
15	7-Sep-14	10,559	10,729	60	Marcellus
16	7-Sep-14	10,356	10,527	60	Marcellus
17	8-Sep-14	10,153	10,324	60	Marcellus
18	8-Sep-14	9,951	10,121	60	Marcellus
19	8-Sep-14	9,748	9,919	60	Marcellus
20	8-Sep-14	9,545	9,716	60	Marcellus
21	8-Sep-14	9,342	9,513	60	Marcellus
22	9-Sep-14	9,140	9,311	60	Marcellus
23	9-Sep-14	8,937	9,108	60	Marcellus
24	9-Sep-14	8,734	8,905	60	Marcellus
25	9-Sep-14	8,532	8,703	60	Marcellus
26	10-Sep-14	8,329	8,500	60	Marcellus
27	10-Sep-14	8,126	8,297	60	Marcellus
28	10-Sep-14	7,924	8,095	60	Marcellus
29	10-Sep-14	7,721	7,892	60	Marcellus
30	11-Sep-14	7,343	7,537	60	Marcellus

JUN 26 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47-017-06362 Farm Name Cline, Johnnie et al Well Number Farrow 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	31-Aug-14	74.0	7,422	5,742	5,233	255,100	6,970	N/A
2	1-Sep-14	73.0	6,719	5,643	5,227	256,475	6,802	N/A
3	1-Sep-14	78.0	7,066	5,866	5,716	256,750	6,805	N/A
4	2-Sep-14	72.2	6,596	5,842	6,382	254,900	6,704	N/A
5	2-Sep-14	74.0	6,973	5,586	5,368	257,840	6,667	N/A
6	3-Sep-14	73.6	6,550	5,685	6,026	252,650	6,655	N/A
7	3-Sep-14	76.0	7,029	5,554	5,517	245,370	7,268	N/A
8	3-Sep-14	62.3	6,990	5,525	6,002	247,800	7,232	N/A
9	4-Sep-14	71.0	7,496	5,598	4,456	181,780	7,857	N/A
10	5-Sep-14	75.1	7,595	5,678	5,221	250,700	6,648	N/A
11	6-Sep-14	71.0	7,065	5,523	5,648	212,925	7,187	N/A
12	6-Sep-14	74.0	7,114	5,558	4,833	251,780	6,548	N/A
13	6-Sep-14	77.5	7,383	5,701	5,332	251,000	6,813	N/A
14	7-Sep-14	78.0	7,214	5,682	5,213	257,440	6,743	N/A
15	7-Sep-14	78.3	7,346	5,822	6,149	254,000	6,718	N/A
16	7-Sep-14	79.1	6,988	5,594	5,651	245,250	7,264	N/A
17	8-Sep-14	73.6	7,127	5,800	5,322	253,050	6,673	N/A
18	8-Sep-14	77.0	7,339	5,677	4,984	252,850	6,706	N/A
19	8-Sep-14	78.0	7,233	5,784	5,152	253,100	6,646	N/A
20	8-Sep-14	77.5	7,076	5,686	5,386	254,325	6,601	N/A
21	8-Sep-14	78.7	7,075	5,877	5,206	255,070	6,589	N/A
22	9-Sep-14	78.2	7,036	5,643	5,358	254,875	6,573	N/A
23	9-Sep-14	77.0	6,986	5,518	5,119	257,950	6,555	N/A
24	9-Sep-14	79.4	6,507	5,615	5,869	257,250	6,525	N/A
25	9-Sep-14	78.9	6,485	5,615	5,875	257,375	6,505	N/A
26	10-Sep-14	77.0	6,647	5,608	5,331	257,650	6,474	N/A
27	10-Sep-14	78.0	6,427	5,469	4,950	257,750	6,469	N/A
28	10-Sep-14	78.0	6,958	5,423	5,164	253,200	6,418	N/A
29	10-Sep-14	78.5	6,459	5,693	5,620	253,250	6,408	N/A
30	11-Sep-14	78.6	6,485	5,587	5,853	253,470	6,372	N/A
	AVG=	75.9	6,980	5,653	5,439	7,502,925	202,395	TOTAL

JUN 26 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47-017-06362 Farm Name Cline, Johnnie et al Well Number Farrow Unit 2H

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Fresh Water	56'	N/A	56'	N/A
Siltstone	0	412	0	412
Shale/ Trace Coal	est. 412	537	est. 412	537
Shale/ Limestone	est. 537	557	est. 537	557
Shale/ Sandstone	est. 557	762	est. 557	762
Shale/ Coal	est. 762	787	est. 762	787
Shale/ Sandstone	est. 787	997	est. 787	997
Siltstone	est. 997	1,057	est. 997	1,057
Shale	est. 1057	1,307	est. 1057	1,307
Shale/Limestone/ Trace Coal	est. 1307	1,397	est. 1307	1,397
Shale/ Siltstone	est. 1397	1,437	est. 1397	1,437
Sandstone/ Shale/ Trace Coal	est. 1437	1,677	est. 1437	1,677
Sandy Shale/ Coal	est. 1677	1,747	est. 1677	1,747
Shale	est. 1747	1,812	est. 1747	1,812
Shale/ Coal	est. 1812	1,837	est. 1812	1,837
Sandstone	est. 1837	1,867	est. 1837	1,867
Shale	est. 1867	2,047	est. 1867	2,047
Siltstone/ Shale	est. 2047	2,107	est. 2047	2,107
Shale	2,107	2,129	2,107	2,129
Big Lime	2,129	2,226	2,129	2,226
Big Injun	2,226	2,446	2,226	2,446
Gantz Sand	2,446	2,578	2,446	2,578
Fifty Foot Sandstone	2,578	2,923	2,578	2,923
Gordon	2,923	3,226	2,923	3,226
Fifth Sandstone	3,226	3,288	3,226	3,288
Bayard	3,288	3,517	3,288	3,517
Warren	3,517	3,809	3,517	3,809
Speechley	3,809	3,997	3,809	3,997
Baltown	3,997	4,659	3,997	4,659
Bradford	4,659	5,110	4,659	5,110
Benson	5,110	5,350	5,110	5,351
Alexander	5,350	5,578	5,351	5,583
Elk	5,578	6,095	5,583	6,130
Rhinestreet	6,095	6,603	6,130	6,707
Sycamore	6,603	6,760	6,707	6,902
Middlesex	6,760	6,899	6,902	7,082
Burkett	6,899	6,933	7,082	7,135
Tully	6,933	7,014	7,135	7,299
Marcellus	7,014	NA	7,299	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.

RECEIVED
JUN 26 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV



Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/31/2014
Job End Date:	9/11/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06362-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Farrow Unit 2H
Longitude:	-80.69958900
Latitude:	39.18584200
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,087
Total Base Water Volume (gal):	8,500,548
Total Base Non Water Volume:	379,563

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	90.11448	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	9.53701	
GC-15	U.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.06016	
			Petroleum Distillates	64742-47-8	60.00000	0.05697	
			Suspending agent (solid)	14808-60-7	3.00000	0.00920	
			Surfactant	68439-51-0	3.00000	0.00361	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.08572	
			Hydrogen Chloride	7647-01-1	18.00000	0.02047	
WFRA-405	U.S. Well Services, LLC	Friction Reducer	Water	7732-18-5	40.00000	0.03020	
			Anionic Polyacrylamide	Proprietary		0.03020	
			Petroleum Distillates	64742-47-8	22.00000	0.02431	
			Ethoxylated alcohol blend	Proprietary	5.00000	0.00378	

SI-1000	U.S. Well Services, LLC	Scale Inhibitor	Crystalline Salt	12125-02-9	5.00000	0.00378
			Anionic Copolymer	Proprietary		0.00403
			Ethylene Glycol	107-21-1	20.00000	0.00364
			Water	7732-18-5	30.00000	0.00304
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent	2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00440
AP One	U.S. Well Services, LLC	Gel Breakers	Deionized Water	7732-18-5	28.00000	0.00251
AI-300	U.S. Well Services, LLC	Acid Corrosion Inhibitors	Ammonium Persulfate	7727-54-0	100.00000	0.00197
			Ethylene Glycol	107-21-1	31.00000	0.00022
			N,N-Dimethylformamide	88-12-2	15.00000	0.00007
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00000	0.00006
			Cinnamaldehyde	104-55-2	5.00000	0.00006
			2-Butoxyethanol	111-76-2	7.00000	0.00005
			Water	7732-18-5	20.00000	0.00002
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00002
			Triethyl Phosphate	78-40-0	3.00000	0.00001
			Isopropyl Alcohol	67-63-0	3.00000	0.00001

Ingredients shown above are subject to 29 CFR 1910.1200(j) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

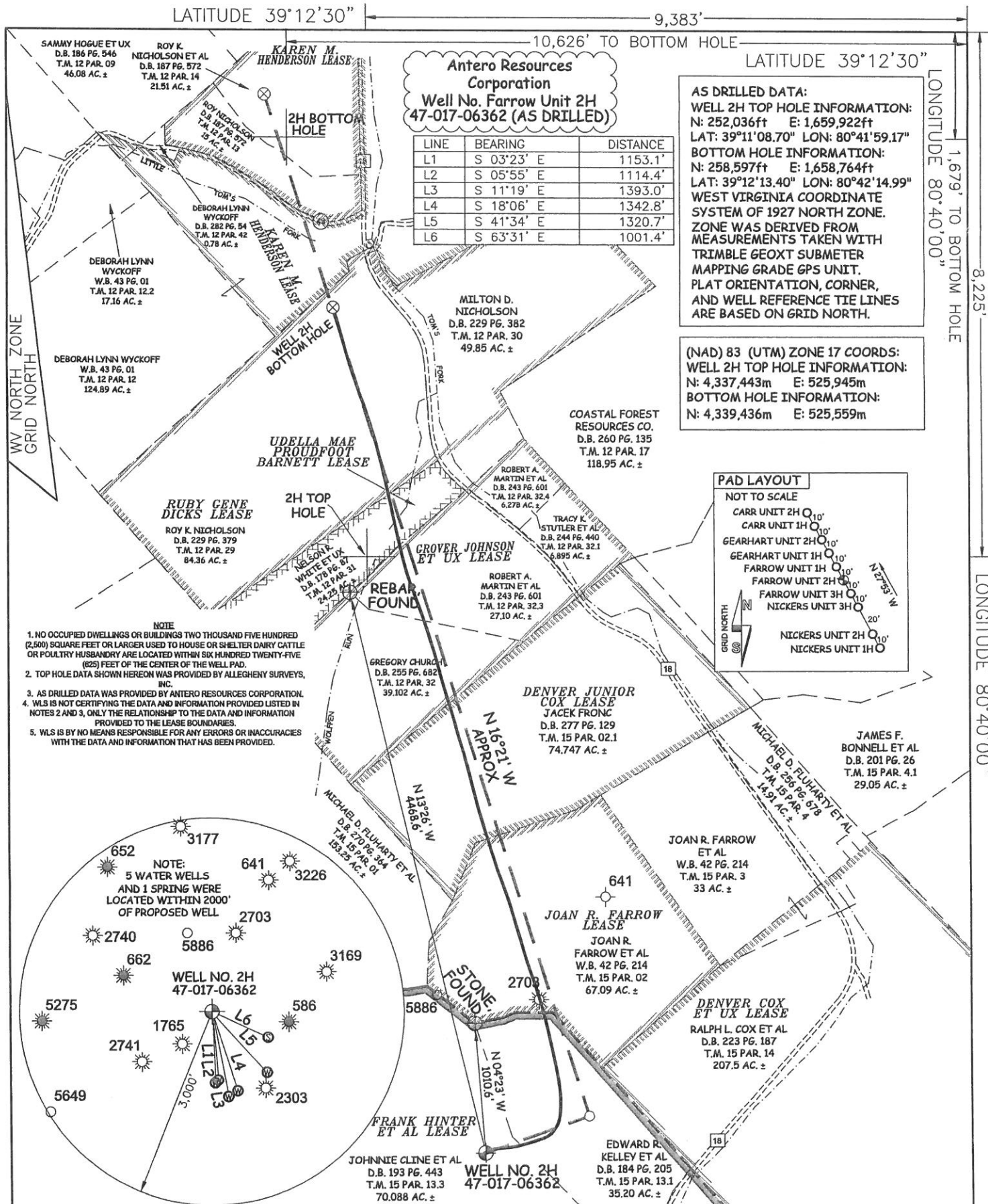
* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

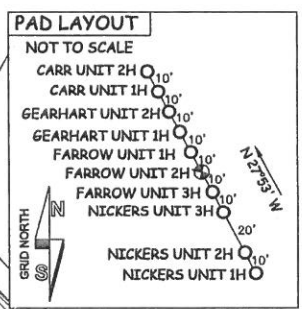
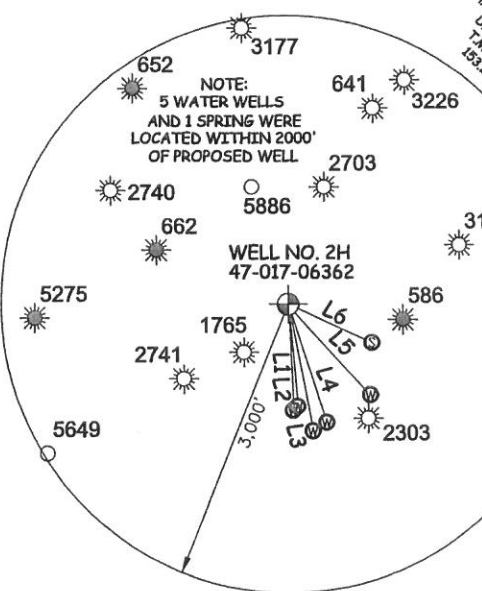
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

RECEIVED

JUN 26 2015
WV GEOLOGICAL SURVEY
MORGANTOWN, WV



- 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.



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

DATE 05/22/15
 OPERATOR'S WELL # FARROW UNIT #2H

API WELL # 47 - 017 - 06362
 STATE MIDDLE COUNTY PERMIT

LOCATION: ELEVATION 1,105' ORIGINAL - 1,096' AS DRILLED
 QUADRANGLE NEW MILTON 7.5' DISTRICT NEW MILTON COUNTY DODDRIDGE

SURFACE OWNER JOHNNIE CLINE ET AL ACREAGE 70.088 ACRES +/-
 OIL & GAS ROYALTY OWNER FRANK HINTER ET AL; JOAN R. FARROW; DENVER JUNIOR COX; GROVER JOHNSON ET UX; UDELLA MAE PROUDFOOT BARNETT; RUBY GENE DICKS LEASE ACREAGE 329.73 AC±; 67 AC±; 80 AC±; 81 AC±; 22.485 AC±; 117.197 AC±

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

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,059' TVD 13,652' MD
 DIANNA STAMPER
 CT CORPORATION SYSTEM

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

JOB # 13-067WA
 DRAWING # FARROW2HAD
 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

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

SURFACE OWNER JOHNNIE CLINE ET AL
 OIL & GAS ROYALTY OWNER FRANK HINTER ET AL; JOAN R. FARROW; DENVER JUNIOR COX; GROVER JOHNSON ET UX; UDELLA MAE PROUDFOOT BARNETT; RUBY GENE DICKS

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

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,059' TVD 13,652' MD
 DIANNA STAMPER
 CT CORPORATION SYSTEM

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