

APPROVED

11/09/2018

WR-35
Rev. 8/23/13

NAME: [Signature]

Page ___ of ___

DATE: 11/1/17
State of West Virginia

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

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OCT 30 2017
WV Department of
Environmental Protection

API 47-017-06273 County Doddridge District New Milton
Quad New Milton 7.5' Pad Name Stewart Pad Field/Pool Name ----
Farm name Randall & Carolyn S. Stewart Well Number Swiger 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 4337765.220m Easting 529237.505m
Landing Point of Curve Northing 4337462.280m Easting 528760.428m
Bottom Hole Northing 4334472.907m Easting 529683.574m

Elevation (ft) 1334' 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 06/28/2013 Date drilling commenced 08/19/2014 Date drilling ceased 11/12/2014
Date completion activities began 11/16/2016 Date completion activities ceased 04/23/2017
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

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Freshwater depth(s) ft 35', 372', 407' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 964', 1136', 1752' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 1907' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by: _____

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API 47-017 - 06273 Farm name Randall & Carolyn S. Stewart Well number Swiger 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#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	443'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2543'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	18448'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7823'		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	171 sx	15.6	1.18	202	0'	8 Hrs.
Surface	Class A	523 sx	15.6	1.18	617	0'	8 Hrs.
Coal							
Intermediate 1	Class A	987 sx	15.6	1.18	1165	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1111 sx (Lead) 1704 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.78 (Tail)	4633	-500' Into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 18448' MD, 7334' TVD (BHL) & 7377' TVD (Deepest Point Drilled) Loggers TD (ft) 18406' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 7393'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Cross Unit 1H API #47-017-06238). Please reference the wireline logs submitted with Form WR-35 for Cross 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 N/A

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API 47- 017 - 06273 Farm name Randall & Carolyn S. Stewart Well number Swiger Unit 1H

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	7308' (TOP) TVD	7874' (TOP) MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3950 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 10984 mcfpd Oil 38 bpd NGL --- bpd Water 768 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 ₂ S, ETC)
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***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Patterson – UTI Drilling Company LLC
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Nine Energy Service
Address 125 Museum Road City Washington State PA Zip 15301

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

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 Samantha Klaas Telephone 303-357-6759
Signature [Signature] Title Permitting Agent Date 10/27/2017

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

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EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	11/16/2016	18156	18325	60	Marcellus
2	3/7/2017	17955	18124	60	Marcellus
3	3/7/2017	17754	17923	60	Marcellus
4	3/8/2017	17553	17723	60	Marcellus
5	3/8/2017	17353	17522	60	Marcellus
6	3/8/2017	17152	17321	60	Marcellus
7	3/9/2017	16951	17120	60	Marcellus
8	3/9/2017	16750	16920	60	Marcellus
9	3/9/2017	16550	16719	60	Marcellus
10	3/9/2017	16349	16518	60	Marcellus
11	3/18/2017	16148	16317	60	Marcellus
12	3/18/2017	15947	16117	60	Marcellus
13	3/19/2017	15747	15916	60	Marcellus
14	3/19/2017	15546	15715	60	Marcellus
15	3/19/2017	15345	15514	60	Marcellus
16	3/20/2017	15144	15314	60	Marcellus
17	3/20/2017	14944	15113	60	Marcellus
18	3/20/2017	14743	14912	60	Marcellus
19	3/21/2017	14542	14711	60	Marcellus
20	3/21/2017	14341	14511	60	Marcellus
21	3/21/2017	14141	14310	60	Marcellus
22	3/22/2017	13940	14109	60	Marcellus
23	3/22/2017	13739	13908	60	Marcellus
24	3/22/2017	13538	13708	60	Marcellus
25	3/22/2017	13337	13507	60	Marcellus
26	3/23/2017	13137	13306	60	Marcellus
27	3/23/2017	12936	13105	60	Marcellus
28	3/23/2017	12735	12904	60	Marcellus
29	3/24/2017	12534	12704	60	Marcellus
30	3/24/2017	12334	12503	60	Marcellus
31	3/24/2017	12133	12302	60	Marcellus
32	3/24/2017	11932	12101	60	Marcellus
33	3/24/2017	11731	11901	60	Marcellus
34	3/25/2017	11531	11700	60	Marcellus
35	3/25/2017	11330	11499	60	Marcellus
36	3/25/2017	11129	11298	60	Marcellus
37	3/25/2017	10928	11098	60	Marcellus
38	3/26/2017	10728	10897	60	Marcellus
39	3/26/2017	10527	10696	60	Marcellus
40	3/26/2017	10326	10495	60	Marcellus
41	3/27/2017	10125	10295	60	Marcellus
42	3/27/2017	9925	10094	60	Marcellus
43	3/27/2017	9724	9893	60	Marcellus
44	3/27/2017	9523	9692	60	Marcellus
45	3/28/2017	9322	9492	60	Marcellus
46	3/28/2017	9122	9291	60	Marcellus
47	3/28/2017	8921	9090	60	Marcellus
48	3/28/2017	8720	8889	60	Marcellus
49	3/29/2017	8519	8689	60	Marcellus
50	3/29/2017	0	0	60	Marcellus

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API 47-017-06273 Farm Name Randall & Carolyn S. Stewart Well Number Swiger 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	3/7/2017	72.7	8108	6043	4288	510190	11202	N/A
2	3/7/2017	78.6	7941	5624	4588	508600	10727	N/A
3	3/7/2017	78.0	8113	6210	4332	506700	10667	N/A
4	3/8/2017	78.3	7891	5824	5039	507200	12488	N/A
5	3/8/2017	79.3	7896	6508	5365	508350	10754	N/A
6	3/8/2017	79.0	7807	5950	4850	506560	10648	N/A
7	3/9/2017	78.0	7795	5613	5026	506160	11936	N/A
8	3/9/2017	79.2	7702	6016	5251	507900	10638	N/A
9	3/9/2017	79.0	7691	5798	5183	506950	10507	N/A
10	3/9/2017	79.8	7614	5413	0	425040	8909	N/A
11	3/18/2017	77.6	7573	5741	5082	508050	10479	N/A
12	3/18/2017	78.4	7656	4652	5063	503345	11567	N/A
13	3/19/2017	79.3	7744	7558	5134	500100	10470	N/A
14	3/19/2017	79.2	7577	5937	5317	511000	10484	N/A
15	3/19/2017	79.9	7660	7654	5170	509820	10452	N/A
16	3/20/2017	80.6	7807	5412	4952	506590	10542	N/A
17	3/20/2017	79.0	7574	5141	5275	508550	10479	N/A
18	3/20/2017	79.2	7533	4998	5361	513120	14515	N/A
19	3/21/2017	80.0	7550	5822	5076	510090	10424	N/A
20	3/21/2017	79.0	7460	4696	5079	508060	11326	N/A
21	3/21/2017	79.3	7418	5726	5297	515740	10425	N/A
22	3/22/2017	81.0	7488	5708	5351	510400	10418	N/A
23	3/22/2017	79.0	7415	5786	5378	507600	10361	N/A
24	3/22/2017	79.6	7373	5554	5340	504560	10544	N/A
25	3/22/2017	79.9	7302	5708	5424	506830	10369	N/A
26	3/23/2017	80.0	7171	6393	5332	508870	10382	N/A
27	3/23/2017	79.0	7227	4441	5432	507580	10345	N/A
28	3/23/2017	78.6	7247	5893	5315	510889	12547	N/A
29	3/24/2017	80.0	7352	5929	5141	508120	10368	N/A
30	3/24/2017	79.0	7116	6013	5368	507750	10328	N/A
31	3/24/2017	80.0	7118	5524	5490	507650	10315	N/A
32	3/24/2017	80.9	7283	6175	5067	508700	10314	N/A
33	3/24/2017	80.2	7108	5400	5175	510880	10300	N/A
34	3/25/2017	80.0	7198	5994	5284	508270	10302	N/A
35	3/25/2017	79.5	6944	5169	5366	507510	10273	N/A
36	3/25/2017	78.3	6975	6349	5174	507160	10367	N/A
37	3/25/2017	80.0	6982	5930	5255	507800	11082	N/A
38	3/26/2017	79.0	7061	6808	5561	507240	10261	N/A
39	3/26/2017	79.0	6831	5694	5374	507350	10250	N/A
40	3/26/2017	78.6	7116	6029	5363	505000	10272	N/A
41	3/27/2017	80.0	7134	5940	5635	501490	11173	N/A
42	3/27/2017	80.0	7044	5683	5348	506520	10234	N/A
43	3/27/2017	79.0	6982	5770	5369	506230	10184	N/A
44	3/27/2017	80.5	7046	5729	5626	507230	10287	N/A
45	3/28/2017	80.0	7165	6188	5794	510330	10268	N/A
46	3/28/2017	80.0	7335	6068	5345	508540	10189	N/A
47	3/28/2017	79.5	7012	6024	5782	509380	10179	N/A
48	3/28/2017	80.1	6963	6128	5521	507050	10182	N/A
49	3/29/2017	81.0	7019	6069	5636	508360	10227	N/A
50	3/29/2017	41.6	6677	0	0	48230	3437	N/A
AVG=		78.5	7376	5,729	5,039	24,851,634	525,397	TOTAL

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API 47-017-06273 Farm Name Randall & Carolyn S. Stewart Well Number Swiger 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	35'	N/A	35'	N/A
Fresh Water	372'	N/A	372'	N/A
Fresh Water	407'	N/A	407'	N/A
Shale/Siltstone	0	447	0	447
Sandstone	447	467	447	467
Shale/Siltstone	467	687	467	687
Sandstone	687	727	687	727
Shale	727	827	727	827
Sandstone	827	887	827	887
Shale	887	1127	887	1127
Sandstone	1127	1207	1127	1207
Shale	1207	1787	1207	1787
Sandstone/Siltstone	1787	1907	1787	1907
Sandstone/Siltstone with trace coal	1907	1967	1907	1967
Shale	1967	2395	1967	2399
Big Lime	2384	2479	2397	2482
Big Injun	2479	2691	2482	2695
Gantz Sand	2691	2839	2695	2842
Fifty Foot Sandstone	2839	3051	2842	3055
Gordon	3051	3405	3055	3408
Fifth Sandstone	3405	3469	3408	3472
Bayard	3469	3745	3472	3748
Warren	3745	4016	3748	4020
Speechley	4016	4218	4020	4221
Baltown	4218	4847	4221	4851
Bradford	4847	5307	4851	5310
Benson	5307	5558	5310	5561
Alexander	5558	5785	5561	5788
Elk	5785	6327	5788	6331
Rhinestreet	6327	6869	6331	7229
Sycamore	6869	7032	7229	7417
Middlesex	7032	7177	7417	7607
Burkett	7177	7207	7607	7653
Tully	7207	7308	7653	7874
Marcellus	7308	NA	7874	NA

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/7/2017
Job End Date:	3/29/2017
State:	West Virginia
County:	Doddridge
API Number:	47-017-06273-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Swiger 1H
Latitude:	39.1885000
Longitude:	-80.66163056
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,377
Total Base Water Volume (gal):	22,772,216
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	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.27010	
Sand	U.S. Well Services, LLC	Proppant					
HCl Acid (12.6%-17.5%)	U.S. Well Services, LLC	Bulk Acid	Crystalline Silica, quartz	14808-60-7	100.00000	11.55041	
WFRA-500	U.S. Well Services, LLC	Friction Reducer	Water	7732-18-5	87.40000	0.09984	
			Hydrogen Chloride	7647-01-0	17.50000	0.02321	
			2-Propenoic acid, polymer with 2-propenamide	29003-06-9	30.00000	0.01595	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01284	
LGC-15	U.S. Well Services, LLC	Gelling Agents					
			Guar Gum	9000-30-0	50.00000	0.00493	
			Petroleum Distillates	64742-47-8	60.00000	0.00467	
			Suspending agent (solid)	14808-60-7	3.00000	0.00075	
			Surfactant	68439-51-0	3.00000	0.00030	

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SI-1100	U.S. Well Services, LLC	Scale Inhibitor						
			Ethylene Glycol	107-21-1			40.00000	0.00712
			Copolymer of Maleic and Acrylic acid	52255-49-9			10.00000	0.00147
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8			3.00000	0.00050
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1			3.00000	0.00049
			Phosphino carboxylic acid polymer	71050-62-9			3.00000	0.00049
Biodlear 2000	U.S. Well Services, LLC	Anti-Bacterial Agent						
			2,2-dibromo-3-nitropropionamide	10222-01-2			20.00000	0.00429
AP One	U.S. Well Services, LLC	Gel Breakers	Deionized Water	7732-18-5			28.00000	0.00245
AI-303	U.S. Well Services, LLC	Acid Corrosion Inhibitors	Ammonium Persulfate	7727-54-0			100.00000	0.00012
			Ethylene glycol	107-21-1			40.00000	0.00004
			Cinnamaldehyde	104-55-2			20.00000	0.00001
			Formic acid	64-18-6			20.00000	0.00001
			Butyl cellosolve	111-76-2			20.00000	0.00001
			Polyether	60828-78-6			10.00000	0.00001
			Acetophenone,thiourea,formaldehyde polymer	68527-49-1			5.00000	0.00000

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%

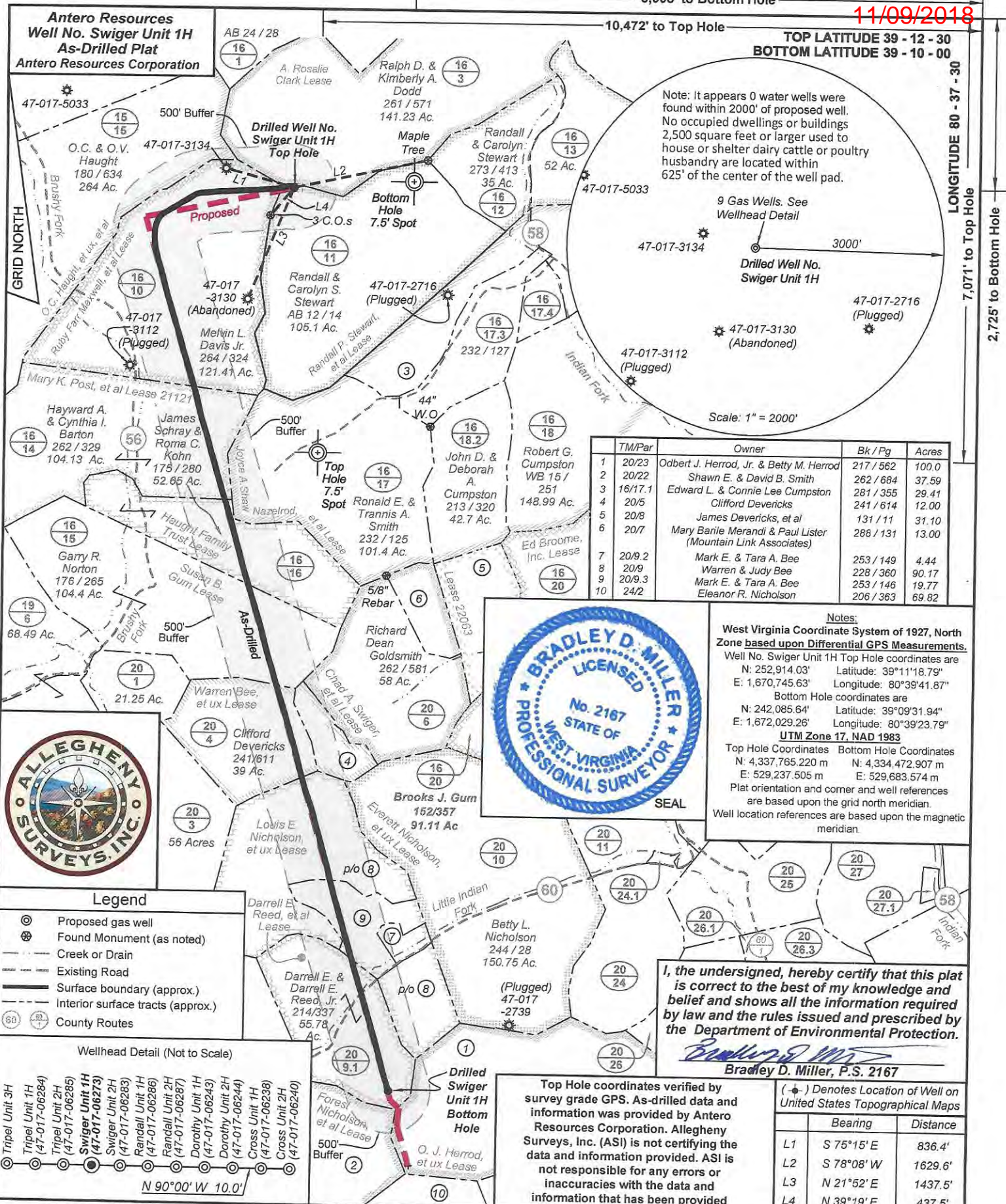
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
 Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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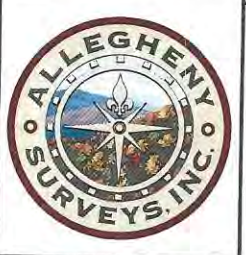


Scale: 1" = 2000'

TM/Par	Owner	Bk / Pg	Acres
1 20/23	Odbert J. Herrod, Jr. & Betty M. Herrod	217 / 562	100.0
2 20/22	Shawn E. & David B. Smith	262 / 684	37.59
3 16/17.1	Edward L. & Connie Lee Cumpston	281 / 355	29.41
4 20/5	Clifford Devericks	241 / 614	12.00
5 20/8	James Devericks, et al	131 / 11	31.10
6 20/7	Mary Barile Merandi & Paul Lister (Mountain Link Associates)	288 / 131	13.00
7 20/9.2	Mark E. & Tara A. Bee	253 / 149	4.44
8 20/9	Warren & Judy Bee	228 / 360	90.17
9 20/9.3	Mark E. & Tara A. Bee	253 / 146	19.77
10 24/2	Eleanor R. Nicholson	206 / 363	69.82



Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Swiger Unit 1H Top Hole coordinates are
 N: 252,914.03' Latitude: 39°11'18.79"
 E: 1,670,745.63' Longitude: 80°39'41.87"
 Bottom Hole coordinates are
 N: 242,085.64' Latitude: 39°09'31.94"
 E: 1,672,029.26' Longitude: 80°39'23.79"
UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,337,765.220 m N: 4,334,472.907 m
 E: 529,237.505 m E: 529,683.574 m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.



Legend

- ⊙ Proposed gas well
- ⊙ Found Monument (as noted)
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)
- 60 County Routes

Wellhead Detail (Not to Scale)

⊙	Tripel Unit 3H
⊙	Tripel Unit 1H (47-017-06284)
⊙	Tripel Unit 2H (47-017-06285)
⊙	Swiger Unit 1H (47-017-06273)
⊙	Swiger Unit 2H (47-017-06283)
⊙	Randall Unit 1H (47-017-06286)
⊙	Randall Unit 2H (47-017-06287)
⊙	Dorothy Unit 1H (47-017-06243)
⊙	Dorothy Unit 2H (47-017-06244)
⊙	Cross Unit 1H (47-017-06238)
⊙	Cross Unit 2H (47-017-06240)

N 90°00' W 10.0'

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
 Bradley D. Miller, P.S. 2167

Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided

	Bearing	Distance
L1	S 75°15' E	836.4'
L2	S 78°08' W	1629.6'
L3	N 21°52' E	1437.5'
L4	N 39°19' E	437.5'

FILE NO: 78-30-NM-13
 DRAWING NO: 78-13 Swiger 1H As-Drilled
 SCALE: 1" = 1500'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: July 13 2017
 OPERATOR'S WELL NO. Swiger Unit 1H
 API WELL NO
 47 - 017 - 06273

8,998' to Bottom Hole

10,472' to Top Hole

11/09/2018

TOP LATITUDE 39 - 12 - 30
BOTTOM LATITUDE 39 - 10 - 00

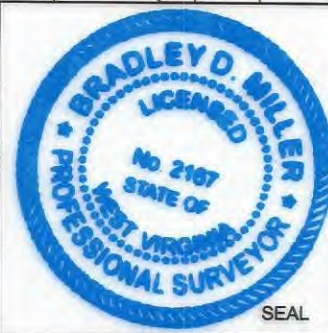
LONGITUDE 80 - 37 - 30
7,071' to Top Hole
2,725' to Bottom Hole

Antero Resources
Well No. Swiger Unit 1H
As-Drilled Plat
Antero Resources Corporation

Note: It appears 0 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

Scale: 1" = 2000'

TM/Par	Owner	Bk / Pg	Acres
1	20/23 Odert J. Herrod, Jr. & Betty M. Herrod	217 / 562	100.0
2	20/22 Shawn E. & David B. Smith	262 / 684	37.59
3	16/17.1 Edward L. & Connie Lee Cumpston	281 / 355	29.41
4	20/5 Clifford Devericks	241 / 614	12.00
5	20/8 James Devericks, et al	131 / 11	31.10
6	20/7 Mary Barile Merandi & Paul Lister (Mountain Link Associates)	288 / 131	13.00
7	20/9.2 Mark E. & Tara A. Bee	253 / 149	4.44
8	20/9 Warren & Judy Bee	228 / 360	90.17
9	20/9.3 Mark E. & Tara A. Bee	253 / 146	19.77
10	24/2 Eleanor R. Nicholson	206 / 363	69.82



Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Swiger Unit 1H Top Hole coordinates are
N: 252,914.03' Latitude: 39°11'18.79"
E: 1,670,745.63' Longitude: 80°39'41.87"
Bottom Hole coordinates are
N: 242,085.64' Latitude: 39°09'31.94"
E: 1,672,029.26' Longitude: 80°39'23.79"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,337,765.220 m N: 4,334,472.907 m
E: 529,237.505 m E: 529,683.574 m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.



- Legend**
- Proposed gas well
 - Found Monument (as noted)
 - Creek or Drain
 - Existing Road
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)
 - County Routes

Wellhead Detail (Not to Scale)

Tripel Unit 3H	(47-017-06284)
Tripel Unit 1H	(47-017-06284)
Tripel Unit 2H	(47-017-06285)
Swiger Unit 1H	(47-017-06273)
Swiger Unit 2H	(47-017-06283)
Randall Unit 1H	(47-017-06283)
Randall Unit 2H	(47-017-06286)
Randall Unit 1H	(47-017-06287)
Dorothy Unit 1H	(47-017-06243)
Dorothy Unit 2H	(47-017-06244)
Cross Unit 1H	(47-017-06238)
Cross Unit 2H	(47-017-06240)

N 90°00' W 10.0'

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller, P.S. 2167

Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegany Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided

	Bearing	Distance
L1	S 75°15' E	836.4'
L2	S 78°08' W	1629.6'
L3	N 21°52' E	1437.5'
L4	N 39°19' E	437.5'

FILE NO: 78-30-NM-13
DRAWING NO: 78-13 Swiger 1H As-Drilled
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY:
Submeter

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: July 13 2017
OPERATOR'S WELL NO. Swiger Unit 1H
API WELL NO
47 - 017 - 06273

APPROVED

11/09/2018

WR-35
Rev. 8/23/13

NAME: [Signature]

Page ___ of ___

DATE: 11/1/17
State of West Virginia

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

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API 47 - 017 - 06273 County Doddridge District New Milton
Quad New Milton 7.5' Pad Name Stewart Pad Field/Pool Name -----
Farm name Randall & Carolyn S. Stewart Well Number Swiger 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 4337765.220m Easting 529237.505m
Landing Point of Curve Northing 4337462.280m Easting 528760.428m
Bottom Hole Northing 4334472.907m Easting 529683.574m

Elevation (ft) 1334' 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 06/28/2013 Date drilling commenced 08/19/2014 Date drilling ceased 11/12/2014
Date completion activities began 11/16/2016 Date completion activities ceased 04/23/2017
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 35', 372', 407' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 964', 1136', 1752' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 1907' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by: _____

WR-35
Rev. 8/23/13

API 47-017 - 06273 Farm name Randall & Carolyn S. Stewart Well number Swiger Unit 1H

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	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	443'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2543'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	18448'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7823'		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	171 sx	15.6	1.18	202	0'	8 Hrs.
Surface	Class A	523 sx	15.6	1.18	617	0'	8 Hrs.
Coal							
Intermediate 1	Class A	987 sx	15.6	1.18	1165	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1111 sx (Lead) 1704 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.78 (Tail)	4633	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 18448' MD, 7334' TVD (BHL) & 7377' TVD (Deepest Point Drilled) Loggers TD (ft) 18406' MD

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

Plug back procedure N/A

Kick off depth (ft) 7393'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Cross Unit 1H API #47-017-06238). Please reference the wireline logs submitted with Form WR-35 for Cross 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 _____

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

WR-35
Rev. 8/23/13

API 47- 017 - 06273 Farm name Randall & Carolyn S. Stewart Well number Swiger Unit 1H

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	7308' (TOP) TVD	7874' (TOP) MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3950 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 10984 mcfpd Oil 38 bpd NGL --- bpd Water 768 bpd GAS MEASURED BY Estimated Orifice Pilot

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

***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Patterson - UTI Drilling Company LLC
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Nine Energy Service
Address 125 Museum Road City Washington State PA Zip 15301

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

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 Samantha Klaas Telephone 303-357-6759
Signature  Title Permitting Agent Date 10/27/2017

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

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EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	11/16/2016	18156	18325	60	Marcellus
2	3/7/2017	17955	18124	60	Marcellus
3	3/7/2017	17754	17923	60	Marcellus
4	3/8/2017	17553	17723	60	Marcellus
5	3/8/2017	17353	17522	60	Marcellus
6	3/8/2017	17152	17321	60	Marcellus
7	3/9/2017	16951	17120	60	Marcellus
8	3/9/2017	16750	16920	60	Marcellus
9	3/9/2017	16550	16719	60	Marcellus
10	3/9/2017	16349	16518	60	Marcellus
11	3/18/2017	16148	16317	60	Marcellus
12	3/18/2017	15947	16117	60	Marcellus
13	3/19/2017	15747	15916	60	Marcellus
14	3/19/2017	15546	15715	60	Marcellus
15	3/19/2017	15345	15514	60	Marcellus
16	3/20/2017	15144	15314	60	Marcellus
17	3/20/2017	14944	15113	60	Marcellus
18	3/20/2017	14743	14912	60	Marcellus
19	3/21/2017	14542	14711	60	Marcellus
20	3/21/2017	14341	14511	60	Marcellus
21	3/21/2017	14141	14310	60	Marcellus
22	3/22/2017	13940	14109	60	Marcellus
23	3/22/2017	13739	13908	60	Marcellus
24	3/22/2017	13538	13708	60	Marcellus
25	3/22/2017	13337	13507	60	Marcellus
26	3/23/2017	13137	13306	60	Marcellus
27	3/23/2017	12936	13105	60	Marcellus
28	3/23/2017	12735	12904	60	Marcellus
29	3/24/2017	12534	12704	60	Marcellus
30	3/24/2017	12334	12503	60	Marcellus
31	3/24/2017	12133	12302	60	Marcellus
32	3/24/2017	11932	12101	60	Marcellus
33	3/24/2017	11731	11901	60	Marcellus
34	3/25/2017	11531	11700	60	Marcellus
35	3/25/2017	11330	11499	60	Marcellus
36	3/25/2017	11129	11298	60	Marcellus
37	3/25/2017	10928	11098	60	Marcellus
38	3/26/2017	10728	10897	60	Marcellus
39	3/26/2017	10527	10696	60	Marcellus
40	3/26/2017	10326	10495	60	Marcellus
41	3/27/2017	10125	10295	60	Marcellus
42	3/27/2017	9925	10094	60	Marcellus
43	3/27/2017	9724	9893	60	Marcellus
44	3/27/2017	9523	9692	60	Marcellus
45	3/28/2017	9322	9492	60	Marcellus
46	3/28/2017	9122	9291	60	Marcellus
47	3/28/2017	8921	9090	60	Marcellus
48	3/28/2017	8720	8889	60	Marcellus
49	3/29/2017	8519	8689	60	Marcellus
50	3/29/2017	0	0	60	Marcellus

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API 47-017-06273 Farm Name Randall & Carolyn S. Stewart Well Number Swiger 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	3/7/2017	72.7	8108	6043	4288	510190	11202	N/A
2	3/7/2017	78.6	7941	5624	4588	508600	10727	N/A
3	3/7/2017	78.0	8113	6210	4332	506700	10667	N/A
4	3/8/2017	78.3	7891	5824	5039	507200	12488	N/A
5	3/8/2017	79.3	7896	6508	5365	508350	10754	N/A
6	3/8/2017	79.0	7807	5950	4850	506560	10648	N/A
7	3/9/2017	78.0	7795	5613	5026	506160	11936	N/A
8	3/9/2017	79.2	7702	6016	5251	507900	10638	N/A
9	3/9/2017	79.0	7691	5798	5183	506950	10507	N/A
10	3/9/2017	79.8	7614	5413	0	425040	8909	N/A
11	3/18/2017	77.6	7573	5741	5082	508050	10479	N/A
12	3/18/2017	78.4	7656	4652	5063	503345	11567	N/A
13	3/19/2017	79.3	7744	7558	5134	500100	10470	N/A
14	3/19/2017	79.2	7577	5937	5317	511000	10484	N/A
15	3/19/2017	79.9	7660	7654	5170	509820	10452	N/A
16	3/20/2017	80.6	7807	5412	4952	506590	10542	N/A
17	3/20/2017	79.0	7574	5141	5275	508550	10479	N/A
18	3/20/2017	79.2	7533	4998	5361	513120	14515	N/A
19	3/21/2017	80.0	7550	5822	5076	510090	10424	N/A
20	3/21/2017	79.0	7460	4696	5079	508060	11326	N/A
21	3/21/2017	79.3	7418	5726	5297	515740	10425	N/A
22	3/22/2017	81.0	7488	5708	5351	510400	10418	N/A
23	3/22/2017	79.0	7415	5786	5378	507600	10361	N/A
24	3/22/2017	79.6	7373	5554	5340	504560	10544	N/A
25	3/22/2017	79.9	7302	5708	5424	506830	10369	N/A
26	3/23/2017	80.0	7171	6393	5332	508870	10382	N/A
27	3/23/2017	79.0	7227	4441	5432	507580	10345	N/A
28	3/23/2017	78.6	7247	5893	5315	510889	12547	N/A
29	3/24/2017	80.0	7352	5929	5141	508120	10368	N/A
30	3/24/2017	79.0	7116	6013	5368	507750	10328	N/A
31	3/24/2017	80.0	7118	5524	5490	507650	10315	N/A
32	3/24/2017	80.9	7283	6175	5067	508700	10314	N/A
33	3/24/2017	80.2	7108	5400	5175	510880	10300	N/A
34	3/25/2017	80.0	7198	5994	5284	508270	10302	N/A
35	3/25/2017	79.5	6944	5169	5366	507510	10273	N/A
36	3/25/2017	78.3	6975	6349	5174	507160	10367	N/A
37	3/25/2017	80.0	6982	5930	5255	507800	11082	N/A
38	3/26/2017	79.0	7061	6808	5561	507240	10261	N/A
39	3/26/2017	79.0	6831	5694	5374	507350	10250	N/A
40	3/26/2017	78.6	7116	6029	5363	505000	10272	N/A
41	3/27/2017	80.0	7134	5940	5635	501490	11173	N/A
42	3/27/2017	80.0	7044	5683	5348	506520	10234	N/A
43	3/27/2017	79.0	6982	5770	5369	506230	10184	N/A
44	3/27/2017	80.5	7046	5729	5626	507230	10287	N/A
45	3/28/2017	80.0	7165	6188	5794	510330	10268	N/A
46	3/28/2017	80.0	7335	6068	5345	508540	10189	N/A
47	3/28/2017	79.5	7012	6024	5782	509380	10179	N/A
48	3/28/2017	80.1	6963	6128	5521	507050	10182	N/A
49	3/29/2017	81.0	7019	6069	5636	508360	10227	N/A
50	3/29/2017	41.6	6677	0	0	48230	3437	N/A
AVG=		78.5	7376	5,729	5,039	24,851,634	525,397	TOTAL

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API 47-017-06273 Farm Name Randall & Carolyn S. Stewart Well Number Swiger 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	35'	N/A	35'	N/A
Fresh Water	372'	N/A	372'	N/A
Fresh Water	407'	N/A	407'	N/A
Shale/Siltstone	0	447	0	447
Sandstone	447	467	447	467
Shale/Siltstone	467	687	467	687
Sandstone	687	727	687	727
Shale	727	827	727	827
Sandstone	827	887	827	887
Shale	887	1127	887	1127
Sandstone	1127	1207	1127	1207
Shale	1207	1787	1207	1787
Sandstone/Siltstone	1787	1907	1787	1907
Sandstone/Siltstone with trace coal	1907	1967	1907	1967
Shale	1967	2395	1967	2399
Big Lime	2384	2479	2397	2482
Big Injun	2479	2691	2482	2695
Gantz Sand	2691	2839	2695	2842
Fifty Foot Sandstone	2839	3051	2842	3055
Gordon	3051	3405	3055	3408
Fifth Sandstone	3405	3469	3408	3472
Bayard	3469	3745	3472	3748
Warren	3745	4016	3748	4020
Speechley	4016	4218	4020	4221
Baltown	4218	4847	4221	4851
Bradford	4847	5307	4851	5310
Benson	5307	5558	5310	5561
Alexander	5558	5785	5561	5788
Elk	5785	6327	5788	6331
Rhinestreet	6327	6869	6331	7229
Sycamore	6869	7032	7229	7417
Middlesex	7032	7177	7417	7607
Burkett	7177	7207	7607	7653
Tully	7207	7308	7653	7874
Marcellus	7308	NA	7874	NA

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Swiger Unit 1H
Doddridge County WV
Northing: 14230767.72
Eastings: 1736291.66
As Drilled



Genie Lightfoot
 13.50, November 18, 2014
 Scientific Drilling Inter.
 11220 NW 10th Street
 Yukon, OK 73099

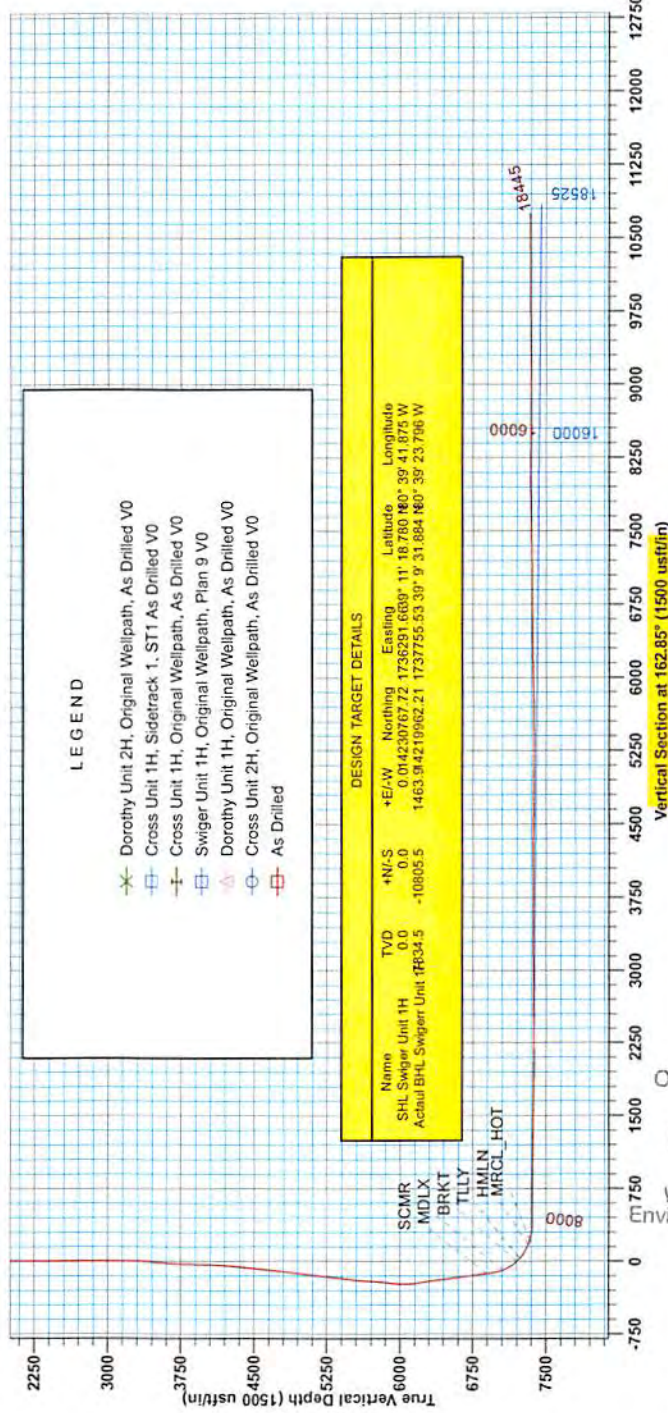
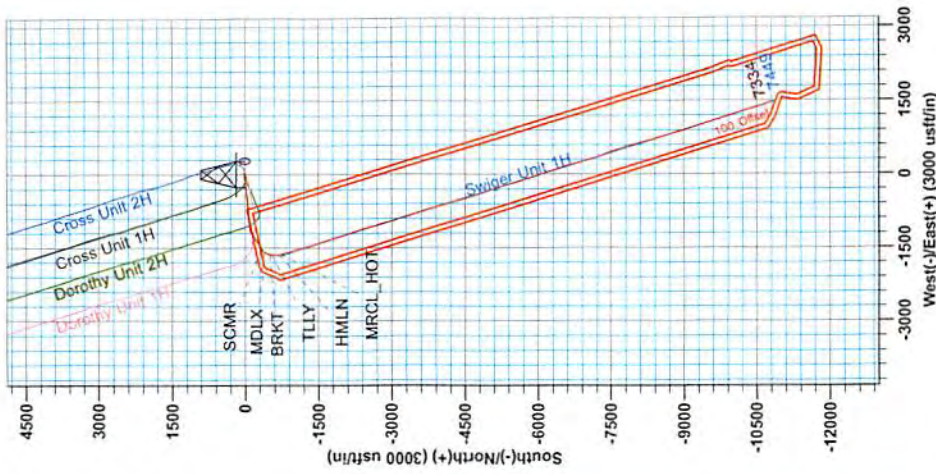
WELL DETAILS Swiger Unit 1H
 Ground Level: 1332.0
 +N/-S 0.0 +E/-W 0.0 Northing 14230767.72 Easting 1736291.66
 Longitude 80° 39' 41.875" W Latitude 39° 41' 18.780" N

PROJECT DETAILS Doddridge 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

Patterson 347-G1-1332 • 48.25' @ 1357.0upft
 Q1: 1332.0

Azimuths to Grid North
 True North: -0.21°
 Magnetic North: -3.76°
 Magnetic Field
 Strength: 52170.75nt
 Dip Angle: 66.76°
 Date: 8/15/2014
 Model: BGGIR2014

To convert Magnetic North to Grid, Subtract 8.75°
 To convert True North to Grid, Subtract 0.21°



LEGEND

- ✕ Dorothy Unit 2H, Original Wellpath, As Drilled V0
- Cross Unit 1H, Sidetrack 1, ST1 As Drilled V0
- Cross Unit 1H, Original Wellpath, As Drilled V0
- Swiger Unit 1H, Original Wellpath, Plan 9 V0
- △ Dorothy Unit 1H, Original Wellpath, As Drilled V0
- Cross Unit 2H, Original Wellpath, As Drilled V0
- As Drilled

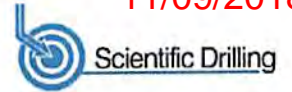
DESIGN TARGET DETAILS							
Name	+N/-S	TVD	+E/-W	Northing	Easting	Latitude	Longitude
SHL Swiger Unit 1H	0.0	0.0	0.0	14230767.72	1736291.66	39° 41' 18.780" N	80° 39' 41.875" W
Actual BHL Swiger Unit	-10805.5	1634.5	1463.94219962	21.1737755	53.39° 9' 31.884" N	80° 39' 23.706" W	

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EOW Completion Report



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Company:	Antero Resources	Local Co-ordinate Reference:	Well Swiger Unit 1H
Project:	Doddridge County WV	TVD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site:	Stewart Pad	MD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well:	Swiger Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Project	Doddridge County WV, McClellan District		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Stewart Pad		
Site Position:		Northing:	14,230,768.62 usft
From:	Map	Easting:	1,736,331.61 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	39° 11' 18.788 N
		Longitude:	80° 39' 41.367 W
		Grid Convergence:	0.21 °

Well	Swiger Unit 1H, Marcellus				
Well Position	+N/-S	0.0 usft	Northing:	14,230,767.72 usft	
	+E/-W	0.0 usft	Easting:	1,736,291.66 usft	
Position Uncertainty	0.0 usft	Wellhead Elevation:	1,357.0 usft	Ground Level:	1,332.0 usft

Wellbore	Original Wellpath		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	8/15/2014	-8.54	66.76	52,171

Design	As Drilled		
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Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	162.85

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Survey Program	From (usft)	To (usft)	Date	Survey (Wellbore)	Tool Name	Description
	114.7	6,034.2	11/18/2014	Survey #5 Final Gyro to KOP (Original Wellbore)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
	6,177.0	18,445.0		Survey #6 SDI MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

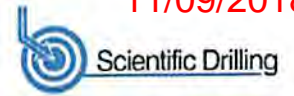
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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
114.7	0.11	283.25	114.7	0.0	-0.1	-0.1	0.10
140.2	0.14	99.89	140.2	0.0	-0.1	-0.1	0.98
164.5	0.06	111.50	164.5	0.0	-0.1	0.0	0.34
190.4	0.12	107.26	190.4	0.0	0.0	0.0	0.23
214.2	0.13	130.99	214.2	0.0	0.0	0.0	0.22
239.1	0.21	118.31	239.1	-0.1	0.1	0.1	0.35
264.9	0.09	116.09	264.8	-0.1	0.1	0.1	0.47
289.3	0.20	117.29	289.3	-0.1	0.2	0.2	0.45
314.7	0.14	123.23	314.7	-0.2	0.3	0.2	0.25
339.0	0.09	144.54	339.0	-0.2	0.3	0.3	0.27



EOW Completion Report



Company: Antero Resources	Local Co-ordinate Reference: Well Swiger Unit 1H
Project: Doddridge County WV	TVD Reference: Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site: Stewart Pad	MD Reference: Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well: Swiger Unit 1H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
365.0	0.16	132.96	365.0	-0.2	0.3	0.3	0.28		
389.5	0.13	179.97	389.5	-0.3	0.4	0.4	0.49		
414.8	0.10	153.12	414.8	-0.3	0.4	0.4	0.24		
440.1	0.19	146.12	440.1	-0.4	0.4	0.5	0.36		
464.6	0.13	149.20	464.6	-0.4	0.4	0.6	0.25		
489.8	0.17	160.09	489.8	-0.5	0.5	0.6	0.19		
514.0	0.18	171.46	514.0	-0.6	0.5	0.7	0.15		
539.4	0.10	153.78	539.4	-0.6	0.5	0.8	0.35		
565.2	0.19	202.02	565.2	-0.7	0.5	0.8	0.56		
589.9	0.14	144.51	589.9	-0.8	0.5	0.9	0.67		
615.3	0.14	165.53	615.3	-0.8	0.5	0.9	0.20		
640.0	0.18	156.45	640.0	-0.9	0.6	1.0	0.19		
665.3	0.17	166.63	665.3	-0.9	0.6	1.1	0.13		
690.2	0.17	180.97	690.2	-1.0	0.6	1.1	0.17		
714.5	0.18	171.76	714.5	-1.1	0.6	1.2	0.12		
740.8	0.18	167.32	740.8	-1.2	0.6	1.3	0.05		
765.3	0.28	169.23	765.3	-1.3	0.6	1.4	0.41		
790.1	0.17	173.83	790.1	-1.4	0.6	1.5	0.45		
815.4	0.26	191.14	815.4	-1.5	0.6	1.6	0.43		
839.4	0.23	204.36	839.4	-1.6	0.6	1.7	0.27		
864.7	0.22	213.15	864.7	-1.6	0.6	1.7	0.14		
889.0	0.19	189.60	889.0	-1.7	0.5	1.8	0.36		
915.0	0.19	188.63	915.0	-1.8	0.5	1.9	0.01		
939.1	0.22	148.77	939.1	-1.9	0.5	2.0	0.59		
964.4	0.17	163.74	964.4	-2.0	0.6	2.0	0.28		
989.9	0.16	169.70	989.9	-2.0	0.6	2.1	0.08		
1,015.3	0.17	157.28	1,015.3	-2.1	0.6	2.2	0.15		
1,039.6	0.14	159.47	1,039.6	-2.2	0.6	2.3	0.13		
1,065.3	0.17	146.99	1,065.3	-2.2	0.7	2.3	0.18		
1,089.5	0.15	163.00	1,089.5	-2.3	0.7	2.4	0.20		
1,115.3	0.12	146.46	1,115.3	-2.3	0.7	2.5	0.19		
1,139.7	0.17	125.04	1,139.7	-2.4	0.8	2.5	0.30		
1,164.3	0.12	169.67	1,164.3	-2.4	0.8	2.6	0.49		
1,190.1	0.19	147.11	1,190.1	-2.5	0.8	2.6	0.36		
1,215.3	0.20	130.82	1,215.3	-2.6	0.9	2.7	0.22		
1,240.0	0.10	155.72	1,240.0	-2.6	0.9	2.8	0.47		
1,264.5	0.19	146.90	1,264.5	-2.7	0.9	2.8	0.38		
1,289.5	0.16	114.45	1,289.5	-2.7	1.0	2.9	0.41		
1,314.9	0.06	107.49	1,314.9	-2.7	1.0	2.9	0.40		
1,339.7	0.16	105.14	1,339.7	-2.7	1.1	2.9	0.40		
1,364.1	0.02	61.29	1,364.1	-2.8	1.1	3.0	0.60		
1,390.1	0.12	116.56	1,390.1	-2.8	1.2	3.0	0.42		
1,415.1	0.08	237.59	1,415.1	-2.8	1.2	3.0	0.70		
1,439.5	0.06	98.47	1,439.5	-2.8	1.2	3.0	0.54		

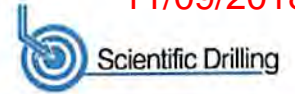
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EOW Completion Report



Company:	Antero Resources	Local Co-ordinate Reference:	Well Swiger Unit 1H
Project:	Doddridge County WV	TVD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site:	Stewart Pad	MD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well:	Swiger Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
1,465.3	0.07	122.09	1,465.3	-2.8	1.2	3.0	0.11	
1,490.2	0.10	73.75	1,490.1	-2.8	1.2	3.0	0.30	
1,515.2	0.04	39.81	1,515.1	-2.8	1.2	3.0	0.28	
1,540.1	0.11	89.94	1,540.1	-2.8	1.3	3.0	0.36	
1,565.1	0.15	88.99	1,565.1	-2.8	1.3	3.1	0.16	
1,590.1	0.06	81.53	1,590.1	-2.8	1.4	3.1	0.36	
1,614.2	0.06	100.71	1,614.2	-2.8	1.4	3.1	0.08	
1,640.0	0.15	84.96	1,640.0	-2.8	1.5	3.1	0.36	
1,665.3	0.21	101.67	1,665.3	-2.8	1.5	3.1	0.31	
1,690.2	0.10	99.07	1,690.2	-2.8	1.6	3.1	0.44	
1,714.6	0.17	105.33	1,714.6	-2.8	1.7	3.2	0.29	
1,739.8	0.15	88.15	1,739.8	-2.8	1.7	3.2	0.21	
1,764.6	0.17	96.32	1,764.6	-2.8	1.8	3.2	0.12	
1,790.4	0.20	87.49	1,790.4	-2.8	1.9	3.3	0.16	
1,814.3	0.17	99.53	1,814.3	-2.8	1.9	3.3	0.20	
1,839.6	0.23	108.05	1,839.6	-2.9	2.0	3.3	0.26	
1,864.8	0.21	98.63	1,864.8	-2.9	2.1	3.4	0.16	
1,889.7	0.14	77.17	1,889.7	-2.9	2.2	3.4	0.38	
1,915.3	0.23	97.60	1,915.3	-2.9	2.3	3.4	0.43	
1,940.2	0.21	102.72	1,940.2	-2.9	2.4	3.5	0.11	
1,964.1	0.20	92.45	1,964.1	-2.9	2.5	3.5	0.16	
1,990.4	0.30	99.85	1,990.4	-2.9	2.6	3.5	0.40	
2,015.6	0.31	98.75	2,015.6	-2.9	2.7	3.6	0.05	
2,040.0	0.29	94.19	2,040.0	-3.0	2.8	3.7	0.13	
2,064.0	0.25	112.38	2,064.0	-3.0	2.9	3.7	0.39	
2,090.2	0.32	99.48	2,090.2	-3.0	3.1	3.8	0.36	
2,114.2	0.37	106.87	2,114.2	-3.0	3.2	3.9	0.28	
2,139.6	0.34	118.83	2,139.6	-3.1	3.4	4.0	0.31	
2,164.6	0.26	120.21	2,164.6	-3.2	3.5	4.1	0.32	
2,189.6	0.41	133.51	2,189.6	-3.3	3.6	4.2	0.67	
2,215.2	0.41	125.40	2,215.2	-3.4	3.7	4.3	0.23	
2,239.1	0.47	109.81	2,239.1	-3.5	3.9	4.5	0.56	
2,264.3	0.37	126.60	2,264.3	-3.5	4.0	4.6	0.63	
2,289.2	0.52	125.92	2,289.1	-3.7	4.2	4.7	0.60	
2,315.1	0.31	132.86	2,315.1	-3.8	4.4	4.9	0.83	
2,339.0	0.35	123.09	2,339.0	-3.9	4.5	5.0	0.29	
2,364.1	0.30	109.99	2,364.1	-3.9	4.6	5.1	0.36	
2,389.3	0.14	124.81	2,389.3	-4.0	4.7	5.2	0.67	
2,415.3	0.19	99.27	2,415.3	-4.0	4.7	5.2	0.34	
2,439.8	0.31	139.78	2,439.7	-4.0	4.8	5.3	0.85	
2,464.5	0.26	144.96	2,464.5	-4.1	4.9	5.4	0.23	
2,489.4	0.09	124.57	2,489.4	-4.2	4.9	5.5	0.72	
2,515.2	0.10	224.07	2,515.2	-4.2	4.9	5.5	0.56	
2,540.1	0.05	265.00	2,540.0	-4.2	4.9	5.5	0.28	
2,564.6	0.07	327.88	2,564.5	-4.2	4.9	5.5	0.26	

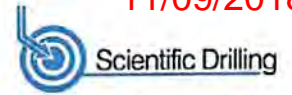
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EOW Completion Report



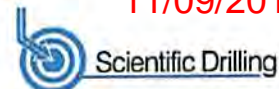
Company:	Antero Resources	Local Co-ordinate Reference:	Well Swiger Unit 1H
Project:	Doddridge County WV	TVD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site:	Stewart Pad	MD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well:	Swiger Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,589.4	0.07	324.38	2,589.3	-4.2	4.9	5.5	0.02
2,614.0	0.08	190.82	2,614.0	-4.2	4.9	5.5	0.56
2,640.2	0.04	282.40	2,640.2	-4.2	4.9	5.5	0.35
2,664.8	0.06	290.06	2,664.8	-4.2	4.8	5.5	0.09
2,690.2	0.06	321.15	2,690.2	-4.2	4.8	5.4	0.13
2,714.7	0.09	189.61	2,714.7	-4.2	4.8	5.4	0.56
2,740.2	0.22	233.13	2,740.2	-4.3	4.8	5.5	0.66
2,764.3	0.12	260.77	2,764.2	-4.3	4.7	5.5	0.53
2,790.2	0.14	292.79	2,790.2	-4.3	4.7	5.5	0.29
2,814.1	0.13	249.51	2,814.1	-4.3	4.6	5.5	0.42
2,839.9	0.13	329.03	2,839.9	-4.3	4.6	5.4	0.65
2,865.0	0.20	261.53	2,865.0	-4.3	4.5	5.4	0.77
2,889.3	0.12	280.45	2,889.3	-4.3	4.4	5.4	0.39
2,914.0	0.09	280.39	2,914.0	-4.2	4.4	5.4	0.12
2,939.2	0.16	309.27	2,939.2	-4.2	4.3	5.3	0.37
2,964.8	0.10	227.90	2,964.8	-4.2	4.3	5.3	0.68
2,989.7	0.08	301.89	2,989.7	-4.2	4.3	5.3	0.44
3,014.8	0.18	286.16	3,014.8	-4.2	4.2	5.3	0.42
3,039.2	0.17	265.69	3,039.2	-4.2	4.1	5.2	0.26
3,064.5	0.23	269.86	3,064.5	-4.2	4.0	5.2	0.24
3,089.1	0.16	338.35	3,089.0	-4.2	4.0	5.2	0.92
3,114.3	0.26	342.07	3,114.3	-4.1	4.0	5.1	0.40
3,139.0	0.23	325.96	3,139.0	-4.0	3.9	5.0	0.30
3,164.9	0.25	325.97	3,164.9	-3.9	3.9	4.9	0.08
3,189.4	0.27	277.35	3,189.4	-3.8	3.8	4.8	0.88
3,204.1	0.21	276.82	3,204.1	-3.8	3.7	4.8	0.41
3,214.0	0.46	290.08	3,214.0	-3.8	3.6	4.7	2.64
3,239.0	1.09	296.54	3,239.0	-3.7	3.3	4.5	2.54
3,264.0	1.74	298.24	3,264.0	-3.4	2.8	4.1	2.61
3,289.0	2.38	299.02	3,289.0	-3.0	2.0	3.4	2.56
3,314.0	3.02	299.47	3,313.9	-2.4	1.0	2.6	2.56
3,339.0	3.74	298.32	3,338.9	-1.7	-0.3	1.5	2.89
3,364.0	4.77	297.19	3,363.8	-0.8	-2.0	0.2	4.13
3,389.0	5.58	296.17	3,388.7	0.2	-4.0	-1.4	3.26
3,414.0	6.13	294.73	3,413.6	1.3	-6.3	-3.1	2.28
3,439.0	6.99	293.00	3,438.4	2.4	-8.9	-5.0	3.53
3,464.0	7.61	292.59	3,463.2	3.7	-11.8	-7.0	2.49
3,489.0	8.16	290.52	3,488.0	4.9	-15.0	-9.1	2.48
3,514.0	8.77	289.42	3,512.7	6.2	-18.5	-11.4	2.52
3,539.0	9.38	289.67	3,537.4	7.5	-22.2	-13.7	2.45
3,564.0	9.55	289.20	3,562.1	8.9	-26.1	-16.2	0.75
3,589.0	10.18	287.46	3,586.7	10.2	-30.1	-18.7	2.79
3,614.0	10.96	284.22	3,611.3	11.5	-34.5	-21.1	3.92
3,639.0	11.53	281.06	3,635.8	12.5	-39.3	-23.6	3.36

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EOW Completion Report



Company: Antero Resources	Local Co-ordinate Reference: Well Swiger Unit 1H
Project: Doddridge County WV	TVD Reference: Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site: Stewart Pad	MD Reference: Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well: Swiger Unit 1H	North Reference: Grid
Wellbore: Original Wellpath	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: Oklahoma District

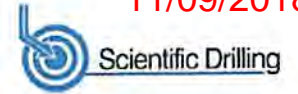
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
3,664.0	12.10	276.48	3,660.3	13.3	-44.3	-25.8	4.39
3,689.0	12.69	272.17	3,684.7	13.7	-49.7	-27.8	4.39
3,714.0	13.18	268.03	3,709.0	13.7	-55.3	-29.4	4.19
3,739.0	13.53	265.33	3,733.4	13.4	-61.0	-30.8	2.86
3,764.0	14.02	261.09	3,757.6	12.7	-67.0	-31.9	4.49
3,789.0	14.41	258.45	3,781.9	11.6	-73.0	-32.6	3.03
3,814.0	15.04	255.61	3,806.1	10.2	-79.2	-33.0	3.83
3,839.0	15.90	254.96	3,830.1	8.5	-85.6	-33.3	3.51
3,864.0	16.64	255.12	3,854.1	6.6	-92.4	-33.6	2.97
3,889.0	17.14	255.81	3,878.1	4.8	-99.4	-33.9	2.15
3,914.0	17.64	256.04	3,901.9	3.0	-106.7	-34.3	2.02
3,939.0	18.04	256.22	3,925.7	1.2	-114.1	-34.8	1.62
3,964.0	18.78	256.46	3,949.4	-0.7	-121.8	-35.3	2.98
3,989.0	19.46	256.20	3,973.1	-2.6	-129.7	-35.7	2.74
4,014.0	20.39	256.20	3,996.6	-4.7	-138.0	-36.2	3.72
4,039.0	21.03	256.13	4,020.0	-6.8	-146.6	-36.8	2.56
4,064.0	21.89	256.17	4,043.2	-9.0	-155.5	-37.3	3.44
4,089.0	22.52	256.70	4,066.4	-11.2	-164.7	-37.9	2.64
4,114.0	23.28	258.06	4,089.4	-13.3	-174.2	-38.6	3.70
4,139.0	23.46	259.19	4,112.3	-15.3	-183.9	-39.6	1.93
4,164.0	23.75	260.53	4,135.3	-17.0	-193.7	-40.9	2.44
4,189.0	23.75	261.94	4,158.1	-18.6	-203.7	-42.3	2.27
4,214.0	24.06	263.06	4,181.0	-19.9	-213.7	-44.0	2.20
4,239.0	24.67	264.35	4,203.8	-21.0	-224.0	-46.0	3.24
4,264.0	25.19	264.92	4,226.4	-22.0	-234.5	-48.1	2.29
4,289.0	25.46	265.12	4,249.0	-22.9	-245.1	-50.4	1.13
4,314.0	25.49	264.91	4,271.6	-23.9	-255.8	-52.7	0.38
4,339.0	25.53	265.16	4,294.2	-24.8	-266.6	-54.9	0.46
4,364.0	25.92	265.13	4,316.7	-25.7	-277.4	-57.2	1.56
4,389.0	26.06	265.26	4,339.2	-26.6	-288.3	-59.6	0.60
4,414.0	26.35	265.25	4,361.6	-27.5	-299.3	-61.9	1.16
4,439.0	26.75	265.34	4,384.0	-28.4	-310.4	-64.4	1.61
4,464.0	26.86	265.34	4,406.3	-29.4	-321.7	-66.8	0.44
4,489.0	26.94	265.25	4,428.6	-30.3	-332.9	-69.2	0.36
4,514.0	27.01	265.16	4,450.8	-31.2	-344.2	-71.7	0.32
4,539.0	27.19	265.27	4,473.1	-32.2	-355.6	-74.1	0.75
4,564.0	26.98	265.00	4,495.4	-33.2	-366.9	-76.5	0.97
4,589.0	26.58	264.74	4,517.7	-34.2	-378.2	-78.9	1.67
4,614.0	26.50	264.58	4,540.0	-35.2	-389.3	-81.2	0.43
4,639.0	26.24	264.35	4,562.4	-36.3	-400.3	-83.4	1.12
4,664.0	26.20	264.44	4,584.9	-37.4	-411.3	-85.6	0.23
4,689.0	25.98	264.94	4,607.3	-38.4	-422.3	-87.9	1.24
4,714.0	26.11	265.21	4,629.8	-39.3	-433.2	-90.2	0.70
4,739.0	25.87	265.03	4,652.2	-40.2	-444.1	-92.5	1.01

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EOW Completion Report



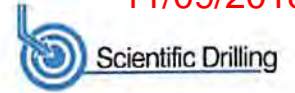
Company:	Antero Resources	Local Co-ordinate Reference:	Well Swiger Unit 1H
Project:	Doddridge County WV	TVD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site:	Stewart Pad	MD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well:	Swiger Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,764.0	25.51	264.79	4,674.8	-41.2	-454.9	-94.8	1.50
4,789.0	25.83	264.72	4,697.3	-42.2	-465.7	-97.0	1.29
4,814.0	26.05	264.73	4,719.8	-43.2	-476.6	-99.3	0.88
4,839.0	26.23	264.87	4,742.2	-44.2	-487.6	-101.5	0.76
4,864.0	26.39	264.86	4,764.6	-45.2	-498.6	-103.8	0.64
4,889.0	26.29	264.69	4,787.0	-46.2	-509.6	-106.1	0.50
4,914.0	26.74	264.71	4,809.4	-47.2	-520.8	-108.4	1.80
4,939.0	27.14	265.67	4,831.7	-48.2	-532.0	-110.8	2.36
4,964.0	27.67	266.51	4,853.9	-49.0	-543.5	-113.5	2.62
4,989.0	28.37	266.95	4,876.0	-49.6	-555.2	-116.3	2.92
5,014.0	28.52	266.85	4,898.0	-50.3	-567.1	-119.2	0.63
5,039.0	28.00	266.42	4,920.0	-51.0	-578.9	-122.0	2.23
5,064.0	27.54	266.22	4,942.1	-51.7	-590.6	-124.7	1.88
5,089.0	27.24	265.89	4,964.3	-52.5	-602.0	-127.4	1.34
5,114.0	26.49	265.68	4,986.6	-53.3	-613.3	-129.9	3.02
5,139.0	26.44	265.79	5,009.0	-54.2	-624.4	-132.4	0.28
5,164.0	26.50	265.96	5,031.4	-55.0	-635.5	-134.9	0.39
5,189.0	26.52	266.22	5,053.7	-55.7	-646.7	-137.4	0.47
5,214.0	26.25	266.10	5,076.1	-56.5	-657.8	-140.0	1.10
5,239.0	25.82	265.25	5,098.6	-57.3	-668.7	-142.4	2.28
5,264.0	26.34	265.05	5,121.0	-58.2	-679.6	-144.8	2.11
5,289.0	26.98	265.87	5,143.4	-59.1	-690.8	-147.2	2.95
5,314.0	27.82	266.42	5,165.6	-59.9	-702.3	-149.9	3.51
5,339.0	28.00	266.48	5,187.7	-60.6	-714.0	-152.6	0.73
5,364.0	27.49	266.38	5,209.8	-61.3	-725.6	-155.3	2.05
5,389.0	26.91	265.84	5,232.0	-62.1	-737.0	-158.0	2.52
5,414.0	26.63	265.48	5,254.3	-63.0	-748.2	-160.5	1.29
5,439.0	26.14	264.99	5,276.7	-63.9	-759.3	-162.9	2.14
5,464.0	25.27	264.16	5,299.3	-64.9	-770.1	-165.1	3.77
5,489.0	24.61	264.16	5,321.9	-66.0	-780.6	-167.1	2.64
5,514.0	25.00	264.67	5,344.6	-67.0	-791.0	-169.2	1.78
5,539.0	25.76	266.20	5,367.2	-67.9	-801.7	-171.6	4.02
5,564.0	26.31	267.54	5,389.7	-68.5	-812.7	-174.2	3.22
5,589.0	26.58	268.38	5,412.1	-68.9	-823.8	-177.1	1.85
5,614.0	26.95	268.24	5,434.4	-69.2	-835.0	-180.1	1.50
5,639.0	28.00	268.01	5,456.6	-69.6	-846.6	-183.2	4.22
5,664.0	28.05	267.44	5,478.6	-70.0	-858.3	-186.2	1.09
5,689.0	28.10	265.86	5,500.7	-70.7	-870.1	-189.0	2.98
5,714.0	27.99	264.36	5,522.8	-71.7	-881.8	-191.5	2.86
5,739.0	27.72	263.06	5,544.9	-73.0	-893.4	-193.7	2.66
5,764.0	27.69	262.43	5,567.0	-74.5	-904.9	-195.7	1.18
5,789.0	28.40	262.16	5,589.1	-76.0	-916.5	-197.6	2.89
5,814.0	28.34	262.46	5,611.1	-77.6	-928.3	-199.6	0.62
5,839.0	28.41	262.03	5,633.1	-79.2	-940.1	-201.5	0.86



EOW Completion Report



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Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

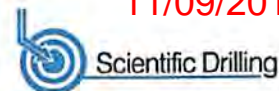
Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
5,864.0	27.85	261.81	5,655.1	-80.9	-951.8	-203.4	2.28	
5,889.0	27.73	261.48	5,677.2	-82.6	-963.3	-205.1	0.78	
5,914.0	27.02	261.15	5,699.4	-84.3	-974.7	-206.8	2.90	
5,939.0	26.77	260.63	5,721.7	-86.1	-985.8	-208.4	1.37	
5,964.0	26.09	261.90	5,744.1	-87.8	-996.8	-210.0	3.54	
5,989.0	26.04	263.75	5,766.6	-89.2	-1,007.7	-211.9	3.26	
6,014.0	25.78	264.26	5,789.0	-90.3	-1,018.6	-214.1	1.37	
6,034.2	25.65	264.58	5,807.2	-91.2	-1,027.3	-215.8	0.94	
6,177.0	25.93	267.28	5,935.8	-95.6	-1,089.3	-229.9	0.85	
6,235.0	25.08	263.47	5,988.2	-97.6	-1,114.2	-235.3	3.18	
6,329.0	24.59	245.26	6,073.6	-108.0	-1,151.8	-236.4	8.12	
6,424.0	27.14	238.86	6,159.1	-127.5	-1,188.3	-228.5	3.98	
6,518.0	27.46	235.79	6,242.6	-150.8	-1,224.5	-217.0	1.54	
6,612.0	28.09	235.64	6,325.8	-175.5	-1,260.7	-204.1	0.67	
6,706.0	26.06	241.92	6,409.5	-197.7	-1,297.2	-193.6	3.73	
6,801.0	27.77	235.89	6,494.3	-219.9	-1,334.0	-183.2	3.39	
6,895.0	28.58	236.86	6,577.1	-244.5	-1,370.9	-170.6	0.99	
6,989.0	26.42	236.31	6,660.5	-268.4	-1,407.2	-158.5	2.31	
7,083.0	27.50	238.28	6,744.3	-291.4	-1,443.0	-147.1	1.49	
7,177.0	27.36	238.30	6,827.7	-314.2	-1,479.9	-136.2	0.15	
7,252.0	29.12	236.62	6,893.8	-333.3	-1,509.8	-126.8	2.57	
SCMR								
7,272.0	29.59	236.20	6,911.2	-338.7	-1,517.9	-124.0	2.57	
7,303.0	29.34	236.66	6,938.2	-347.1	-1,530.6	-119.7	1.09	
7,333.0	29.13	235.74	6,964.4	-355.3	-1,542.8	-115.5	1.65	
7,363.0	29.30	232.35	6,990.6	-363.9	-1,554.7	-110.8	5.54	
7,393.0	30.30	225.27	7,016.6	-373.7	-1,565.9	-104.7	12.19	
7,423.0	32.33	220.84	7,042.2	-385.1	-1,576.5	-96.9	10.23	
7,440.0	33.35	218.50	7,056.5	-392.2	-1,582.4	-91.9	9.57	
MDLX								
7,453.0	34.15	216.79	7,067.3	-397.9	-1,586.8	-87.7	9.57	
7,483.0	36.83	212.27	7,091.7	-412.2	-1,596.6	-76.9	12.50	
7,513.0	39.28	209.88	7,115.4	-428.1	-1,606.2	-64.6	9.53	
7,543.0	41.35	204.79	7,138.2	-445.3	-1,615.0	-50.7	12.96	
7,573.0	42.85	200.48	7,160.5	-463.9	-1,622.8	-35.3	10.85	
7,603.0	44.16	196.13	7,182.3	-483.5	-1,629.2	-18.4	10.89	
7,630.0	46.39	193.05	7,201.3	-502.0	-1,634.1	-2.1	11.57	
BRKT								
7,633.0	46.64	192.72	7,203.3	-504.2	-1,634.6	-0.2	11.57	
7,663.0	49.60	189.57	7,223.4	-526.1	-1,638.9	19.4	12.59	
7,676.0	50.82	188.36	7,231.7	-535.9	-1,640.4	28.4	11.77	
TLLY								
7,693.0	52.43	186.85	7,242.2	-549.1	-1,642.2	40.5	11.77	
7,723.0	55.61	183.73	7,259.9	-573.3	-1,644.4	62.9	13.53	
7,753.0	58.77	181.36	7,276.1	-598.5	-1,645.5	86.7	12.45	

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Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
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Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
7,783.0	62.18	178.76	7,290.9	-624.6	-1,645.5	111.6	13.64	
7,813.0	65.92	176.93	7,304.0	-651.5	-1,644.5	137.6	13.62	
7,843.0	68.68	174.50	7,315.6	-679.1	-1,642.4	164.6	11.85	
7,850.0	69.39	174.03	7,318.1	-685.6	-1,641.8	171.0	11.86	
HMLN								
7,873.0	71.71	172.52	7,325.8	-707.2	-1,639.2	192.4	11.86	
7,897.0	74.06	171.11	7,332.8	-729.9	-1,636.0	215.0	11.29	
MRCL_HOT								
7,903.0	74.65	170.76	7,334.5	-735.6	-1,635.1	220.7	11.29	
7,933.0	77.16	169.47	7,341.8	-764.2	-1,630.1	249.6	9.35	
7,963.0	79.38	168.24	7,347.9	-793.1	-1,624.4	278.8	8.42	
7,998.0	82.97	165.93	7,353.2	-826.8	-1,616.7	313.3	12.15	
8,055.0	89.16	162.02	7,357.1	-881.4	-1,601.0	370.1	12.83	
8,172.0	91.54	161.79	7,356.4	-992.6	-1,564.6	487.1	2.04	
8,266.0	90.87	163.90	7,354.5	-1,082.4	-1,536.9	581.0	2.35	
8,360.0	89.66	164.34	7,354.0	-1,172.8	-1,511.2	675.0	1.37	
8,454.0	89.13	165.70	7,355.0	-1,263.6	-1,486.9	768.9	1.55	
8,548.0	88.89	161.67	7,356.6	-1,353.8	-1,460.5	862.9	4.29	
8,643.0	88.86	162.82	7,358.5	-1,444.2	-1,431.5	957.9	1.21	
8,736.0	88.12	161.74	7,361.0	-1,532.8	-1,403.2	1,050.8	1.41	
8,830.0	89.09	161.75	7,363.2	-1,622.0	-1,373.8	1,144.8	1.03	
8,925.0	88.86	161.87	7,364.9	-1,712.3	-1,344.1	1,239.8	0.27	
9,019.0	89.03	162.23	7,366.7	-1,801.7	-1,315.2	1,333.7	0.42	
9,113.0	88.93	163.58	7,368.3	-1,891.5	-1,287.6	1,427.7	1.44	
9,208.0	88.55	163.57	7,370.4	-1,982.6	-1,260.7	1,522.7	0.40	
9,302.0	89.69	161.67	7,371.9	-2,072.3	-1,232.6	1,616.7	2.36	
9,396.0	88.59	161.28	7,373.3	-2,161.4	-1,202.8	1,710.6	1.24	
9,490.0	88.99	162.74	7,375.3	-2,250.8	-1,173.7	1,804.6	1.61	
9,584.0	89.87	162.36	7,376.2	-2,340.5	-1,145.6	1,898.6	1.02	
9,678.0	89.50	163.38	7,376.7	-2,430.3	-1,117.9	1,992.6	1.15	
9,773.0	89.90	162.97	7,377.2	-2,521.2	-1,090.4	2,087.6	0.60	
9,867.0	91.14	167.65	7,376.4	-2,612.1	-1,066.5	2,181.5	5.15	
9,961.0	90.84	166.24	7,374.7	-2,703.7	-1,045.3	2,275.2	1.53	
10,056.0	90.10	162.45	7,374.0	-2,795.1	-1,019.7	2,370.2	4.06	
10,150.0	90.61	160.99	7,373.4	-2,884.4	-990.2	2,464.1	1.65	
10,244.0	89.90	162.29	7,373.0	-2,973.6	-960.6	2,558.1	1.58	
10,339.0	90.47	163.50	7,372.7	-3,064.4	-932.6	2,653.1	1.41	
10,432.0	91.48	163.16	7,371.1	-3,153.5	-906.0	2,746.1	1.15	
10,526.0	91.01	163.85	7,369.0	-3,243.6	-879.3	2,840.1	0.89	
10,621.0	89.09	162.47	7,368.9	-3,334.5	-851.8	2,935.1	2.49	
10,715.0	89.80	162.67	7,369.9	-3,424.2	-823.6	3,029.0	0.78	
10,809.0	90.84	162.73	7,369.3	-3,513.9	-795.7	3,123.0	1.11	
10,903.0	90.47	163.45	7,368.3	-3,603.8	-768.3	3,217.0	0.86	
10,997.0	90.44	160.96	7,367.5	-3,693.3	-739.6	3,311.0	2.65	

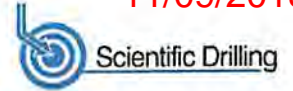
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EOW Completion Report



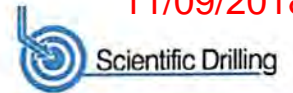
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11,092.0	90.03	160.45	7,367.1	-3,783.0	-708.2	3,406.0	0.69
11,186.0	89.96	161.32	7,367.1	-3,871.8	-677.4	3,499.9	0.93
11,278.0	90.64	163.05	7,366.6	-3,959.4	-649.3	3,591.9	2.02
11,371.0	89.87	163.21	7,366.2	-4,048.4	-622.3	3,684.9	0.85
11,461.0	90.50	163.90	7,365.9	-4,134.7	-596.8	3,774.9	1.04
11,553.0	89.73	164.18	7,365.8	-4,223.2	-571.5	3,866.9	0.89
11,645.0	90.64	163.48	7,365.5	-4,311.5	-545.9	3,958.8	1.25
11,737.0	90.13	163.94	7,364.8	-4,399.8	-520.1	4,050.8	0.75
11,828.0	89.53	164.89	7,365.1	-4,487.5	-495.6	4,141.8	1.23
11,919.0	90.40	163.31	7,365.2	-4,575.0	-470.7	4,232.8	1.98
12,012.0	90.10	162.55	7,364.8	-4,663.9	-443.4	4,325.8	0.88
12,104.0	89.23	161.97	7,365.3	-4,751.5	-415.4	4,417.8	1.14
12,196.0	89.10	161.99	7,366.6	-4,839.0	-386.9	4,509.7	0.14
12,287.0	89.46	161.19	7,367.8	-4,925.3	-358.2	4,600.7	0.96
12,381.0	88.62	161.54	7,369.4	-5,014.4	-328.2	4,694.7	0.97
12,476.0	88.42	162.44	7,371.8	-5,104.7	-298.8	4,789.6	0.97
12,570.0	89.50	162.09	7,373.5	-5,194.2	-270.2	4,883.6	1.21
12,664.0	89.77	161.76	7,374.1	-5,283.6	-241.0	4,977.6	0.45
12,758.0	90.60	165.30	7,373.8	-5,373.7	-214.4	5,071.6	3.87
12,853.0	90.97	166.36	7,372.5	-5,465.8	-191.1	5,166.4	1.18
12,947.0	88.89	163.05	7,372.6	-5,556.5	-166.3	5,260.3	4.16
13,041.0	90.07	162.25	7,373.5	-5,646.2	-138.3	5,354.3	1.52
13,135.0	89.93	160.90	7,373.5	-5,735.3	-108.6	5,448.3	1.44
13,229.0	90.87	162.53	7,372.8	-5,824.6	-79.1	5,542.3	2.00
13,323.0	90.34	163.45	7,371.8	-5,914.5	-51.6	5,636.3	1.13
13,417.0	90.91	161.40	7,370.8	-6,004.1	-23.2	5,730.3	2.26
13,511.0	90.77	161.53	7,369.4	-6,093.2	6.7	5,824.2	0.20
13,605.0	91.47	161.75	7,367.6	-6,182.4	36.3	5,918.2	0.78
13,699.0	91.61	161.76	7,365.1	-6,271.6	65.7	6,012.1	0.15
13,794.0	91.18	162.73	7,362.8	-6,362.1	94.7	6,107.1	1.12
13,888.0	90.77	162.86	7,361.2	-6,451.9	122.5	6,201.1	0.46
13,981.0	90.30	162.62	7,360.3	-6,540.7	150.0	6,294.1	0.57
14,075.0	91.11	163.13	7,359.1	-6,630.5	177.7	6,388.1	1.02
14,170.0	90.30	162.93	7,358.0	-6,721.3	205.4	6,483.1	0.88
14,264.0	90.64	163.11	7,357.2	-6,811.2	232.9	6,577.1	0.41
14,358.0	90.40	164.92	7,356.3	-6,901.6	258.8	6,671.0	1.94
14,453.0	90.71	164.52	7,355.4	-6,993.2	283.8	6,766.0	0.53
14,547.0	90.84	163.96	7,354.1	-7,083.7	309.3	6,859.9	0.61
14,641.0	91.58	162.61	7,352.2	-7,173.7	336.4	6,953.9	1.64
14,735.0	90.64	160.00	7,350.3	-7,262.7	366.5	7,047.9	2.95
14,829.0	89.46	157.95	7,350.3	-7,350.5	400.2	7,141.6	2.52
14,924.0	90.84	162.49	7,350.0	-7,439.8	432.4	7,236.5	4.99
15,018.0	90.67	162.96	7,348.8	-7,529.6	460.3	7,330.5	0.53
15,112.0	91.68	163.49	7,346.8	-7,619.6	487.4	7,424.5	1.21
15,206.0	91.34	161.65	7,344.4	-7,709.2	515.7	7,518.4	1.99

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EOW Completion Report



11/09/2018

Company:	Antero Resources	Local Co-ordinate Reference:	Well Swiger Unit 1H
Project:	Doddridge County WV	TVD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site:	Stewart Pad	MD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well:	Swiger Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
15,301.0	91.38	163.07	7,342.1	-7,799.7	544.3	7,613.4	1.49
15,395.0	90.80	163.94	7,340.3	-7,889.8	571.0	7,707.4	1.11
15,489.0	90.64	163.49	7,339.1	-7,980.0	597.4	7,801.4	0.51
15,583.0	90.67	163.56	7,338.1	-8,070.2	624.0	7,895.4	0.08
15,677.0	90.33	164.88	7,337.2	-8,160.6	649.6	7,989.3	1.45
15,772.0	89.90	165.56	7,337.1	-8,252.5	673.8	8,084.2	0.85
15,866.0	89.66	165.16	7,337.4	-8,343.4	697.6	8,178.1	0.50
15,960.0	88.76	163.36	7,338.7	-8,433.9	723.1	8,272.1	2.14
16,054.0	89.13	162.26	7,340.4	-8,523.7	750.8	8,366.1	1.23
16,148.0	90.47	164.43	7,340.8	-8,613.7	777.8	8,460.1	2.71
16,242.0	89.03	162.08	7,341.2	-8,703.7	804.9	8,554.1	2.93
16,336.0	89.43	162.46	7,342.4	-8,793.3	833.5	8,648.0	0.59
16,431.0	89.13	163.04	7,343.6	-8,884.0	861.7	8,743.0	0.69
16,525.0	89.63	162.40	7,344.7	-8,973.7	889.6	8,837.0	0.86
16,619.0	90.31	163.25	7,344.7	-9,063.5	917.3	8,931.0	1.16
16,713.0	89.70	161.65	7,344.7	-9,153.2	945.7	9,025.0	1.82
16,808.0	90.70	162.53	7,344.4	-9,243.6	974.9	9,120.0	1.40
16,901.0	90.74	162.51	7,343.2	-9,332.3	1,002.8	9,213.0	0.05
16,995.0	90.61	162.31	7,342.1	-9,421.8	1,031.2	9,307.0	0.25
17,090.0	90.24	162.30	7,341.4	-9,512.4	1,060.1	9,402.0	0.39
17,183.0	90.00	161.83	7,341.2	-9,600.8	1,088.7	9,495.0	0.57
17,277.0	90.54	161.10	7,340.7	-9,690.0	1,118.6	9,589.0	0.97
17,371.0	90.27	163.16	7,340.1	-9,779.4	1,147.5	9,682.9	2.21
17,466.0	89.78	162.99	7,340.0	-9,870.3	1,175.1	9,777.9	0.55
17,560.0	90.57	162.20	7,339.8	-9,960.0	1,203.2	9,871.9	1.19
17,654.0	90.84	161.93	7,338.6	-10,049.4	1,232.2	9,965.9	0.41
17,748.0	90.40	161.32	7,337.6	-10,138.6	1,261.8	10,059.9	0.80
17,842.0	90.47	163.72	7,336.9	-10,228.3	1,290.0	10,153.9	2.55
17,899.0	90.50	163.72	7,336.4	-10,283.0	1,306.0	10,210.9	0.05
17,936.0	90.24	164.01	7,336.1	-10,318.5	1,316.3	10,247.9	1.05
18,031.0	90.22	165.27	7,335.8	-10,410.1	1,341.5	10,342.8	1.33
18,124.0	90.20	163.52	7,335.4	-10,499.7	1,366.5	10,435.8	1.88
18,219.0	89.87	163.60	7,335.4	-10,590.8	1,393.4	10,530.8	0.36
18,313.0	90.34	161.04	7,335.2	-10,680.4	1,421.9	10,624.8	2.77
18,391.0	90.30	161.54	7,334.8	-10,754.2	1,446.9	10,702.7	0.64
18,445.0	90.27	161.89	7,334.5	-10,805.5	1,463.9	10,756.7	0.65

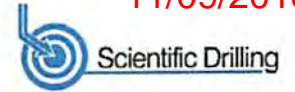
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EOW Completion Report



11/09/2018

Company:	Antero Resources	Local Co-ordinate Reference:	Well Swiger Unit 1H
Project:	Doddridge County WV	TVD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Site:	Stewart Pad	MD Reference:	Patterson 347: GL 1332' + KB 25' @ 1357.0usft
Well:	Swiger Unit 1H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,252.0	6,893.8	-333.3	-1,509.8	SCMR
7,440.0	7,056.5	-392.2	-1,582.4	MDLX
7,630.0	7,201.3	-502.0	-1,634.1	BRKT
7,676.0	7,231.7	-535.9	-1,640.4	TLLY
7,850.0	7,318.1	-685.6	-1,641.8	HMLN
7,897.0	7,332.8	-729.9	-1,636.0	MRCL_HOT

Checked By: _____	Approved By: _____	Date: _____
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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/7/2017
Job End Date:	3/29/2017
State:	West Virginia
County:	Doddridge
API Number:	47-017-06273-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Swiger 1H
Latitude:	39.18855000
Longitude:	-80.66163056
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,377
Total Base Water Volume (gal):	22,772,216
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	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.27010	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	11.55041	
HCL Acid (12.6%-17.5%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.40000	0.09984	
			Hydrogen Chloride	7647-01-0	17.50000	0.02321	
WFRA-500	U.S. Well Services, LLC	Friction Reducer	2-Propenoic acid, polymer with 2-propenamide	9003-06-9	30.00000	0.01595	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01284	
LGC-15	U.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.00493	
			Petroleum Distillates	64742-47-8	60.00000	0.00467	
			Suspending agent (solid)	14808-60-7	3.00000	0.00075	
			Surfactant	68439-51-0	3.00000	0.00030	

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SI-1100	U.S. Well Services, LLC	Scale Inhibitor				
			Ethylene Glycol	107-21-1	40.00000	0.00712
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00147
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	3.00000	0.00050
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	3.00000	0.00049
			Phosphino carboxylic acid polymer	71050-62-9	3.00000	0.00049
Bioclear 2000	U.S. Well Services, LLC	Anti-Bacterial Agent				
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00429
			Deionized Water	7732-18-5	28.00000	0.00245
AP One	U.S. Well Services, LLC	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00012
AI-303	U.S. Well Services, LLC	Acid Corrosion Inhibitors				
			Ethylene glycol	107-21-1	40.00000	0.00004
			Cinnamaldehyde	104-55-2	20.00000	0.00001
			Formic acid	64-18-6	20.00000	0.00001
			Butyl cellosolve	111-76-2	20.00000	0.00001
			Polyether	50828-78-6	10.00000	0.00001
			Acetophenone,thiourea,formaldehyde polymer	58527-49-1	5.00000	0.00000

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.

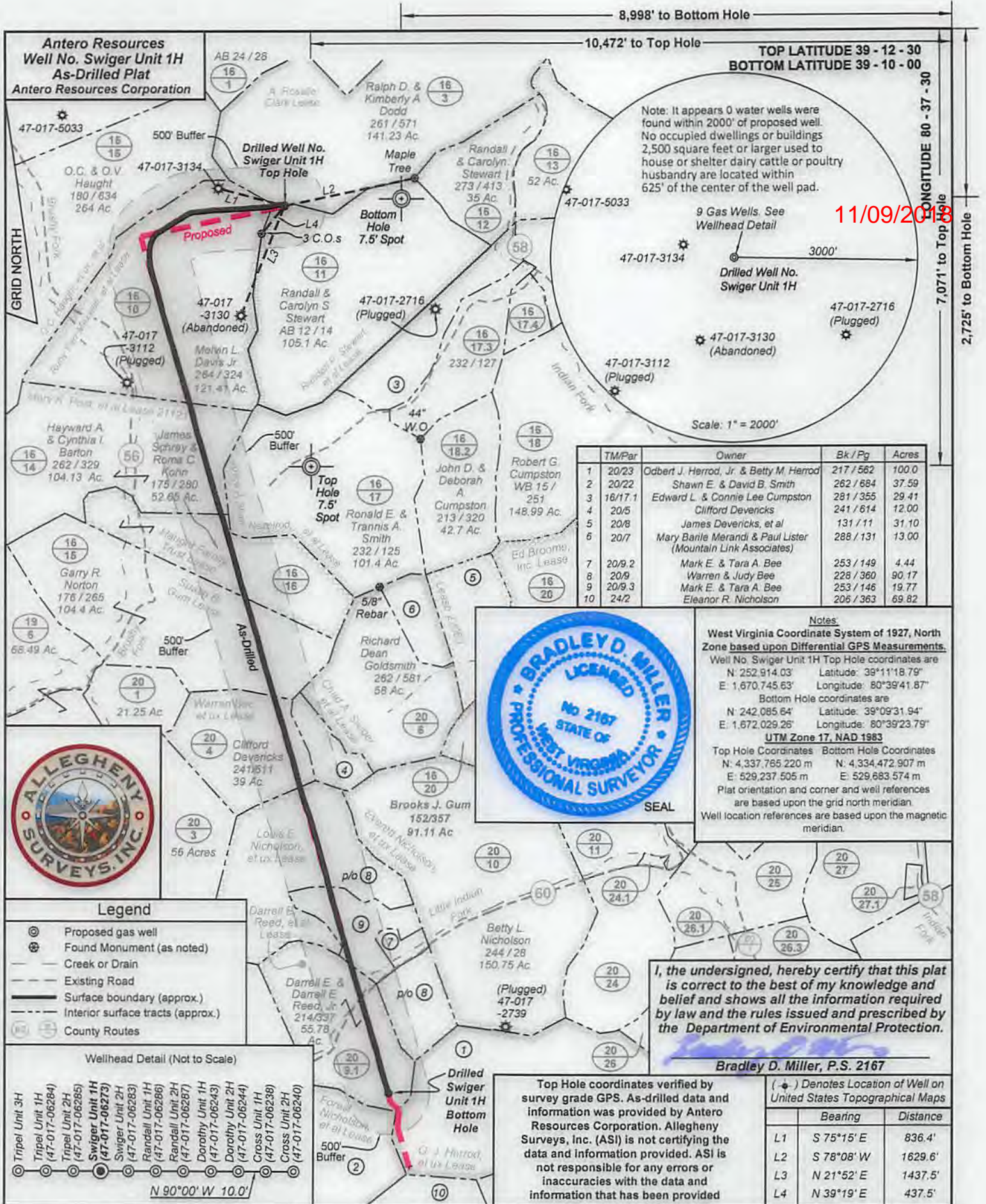
* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** 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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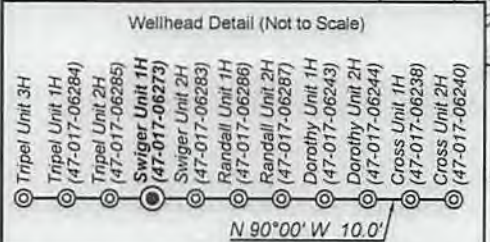
TMP/Par	Owner	Bk/Pg	Acres
1 20/23	Odbert J. Herrod, Jr. & Betty M. Herrod	217 / 562	100.0
2 20/22	Shawn E. & David B. Smith	262 / 684	37.59
3 16/17.1	Edward L. & Connie Lee Cumpston	281 / 355	29.41
4 20/5	Clifford Devericks	241 / 614	12.00
5 20/8	James Devericks, et al	131 / 11	31.10
6 20/7	Mary Banle Merandi & Paul Lister (Mountain Link Associates)	288 / 131	13.00
7 20/9.2	Mark E. & Tara A. Bee	253 / 149	4.44
8 20/9	Warren & Judy Bee	228 / 360	90.17
9 20/9.3	Mark E. & Tara A. Bee	253 / 146	19.77
10 24/2	Eleanor R. Nicholson	206 / 363	69.82



Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Swiger Unit 1H Top Hole coordinates are
 N: 252,914.03' Latitude: 39°11'18.79"
 E: 1,670,745.63' Longitude: 80°39'41.87"
 Bottom Hole coordinates are
 N: 242,085.64' Latitude: 39°09'31.94"
 E: 1,672,029.26' Longitude: 80°39'23.79"
UTM Zone 17, NAD 1983
 Top Hole Coordinates: N: 4,337,765.220 m E: 529,237.505 m
 Bottom Hole Coordinates: N: 4,334,472.907 m E: 529,683.574 m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.



- Legend**
- ⊙ Proposed gas well
 - ⊕ Found Monument (as noted)
 - - - Creek or Drain
 - - - Existing Road
 - Surface boundary (approx.)
 - - - Interior surface tracts (approx.)
 - Ⓜ County Routes



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller, P.S. 2167

Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegany Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided

	Denotes Location of Well on United States Topographical Maps	
	Bearing	Distance
L1	S 75°15' E	836.4'
L2	S 78°08' W	1629.6'
L3	N 21°52' E	1437.5'
L4	N 39°19' E	437.5'

FILE NO: 78-30-NM-13
 DRAWING NO: 78-13 Swiger 1H As-Drilled
 SCALE: 1" = 1500'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: July 13 2017
 OPERATOR'S WELL NO. Swiger Unit 1H
 API WELL NO
 47 - 017 - 06273
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: Existing Grade - 1334' Original Grade - 1361' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: New Milton
 DISTRICT: New Milton COUNTY: Doddridge

SURFACE OWNER: Randall & Carolyn S. Stewart
 ROYALTY OWNER: Randall P. Stewart, et al; Ruby Farr Maxwell, et al

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 18,445' MD

WELL OPERATOR: Antero Resources Corporation ADDRESS: 1615 Wynkoop Street Denver, CO 80202
 DESIGNATED AGENT: Dianna Stamper - CT Corporation System ADDRESS: 5400 D Big Tyler Road Charleston, WV 25313

