

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

479502418

API 47-085-02418 County Tyler District Meade
Quad Middlebourne 7.5' (TH), Pennsboro 7.5' (BH) Pad Name McKim Pad Field/Pool Name -----
Farm name Jarret W. Shepherd et al Well Number McKim 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 4359559m Easting 504204m
Landing Point of Curve Northing 4359612m Easting 504581m
Bottom Hole Northing 4356131m Easting 505948m

Elevation (ft) 1172' 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 4/4/2017 Date drilling commenced 6/29/2017 Date drilling ceased 1/12/2018
Date completion activities began 10/1/2018 Date completion activities ceased 11/26/2018
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 None Identified Open mine(s) (Y/N) depths No
Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths No
Coal depth(s) ft None Identified 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 47-085 - 02418 Farm name Jarret W. Shepherd et al Well number McKim 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"	112'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	551'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2609'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	19295'	New	23#, HCP-110	N/A	Y
Tubing		2-3/8"	6732'		4.7#, L-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	284 sx	15.6	1.21	344	0'	8 Hrs.
Surface	Class A	490 sx	15.6	1.21	593	0'	8 Hrs.
Coal							
Intermediate 1	Class A	870 sx	15.6	1.22	1061	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	730 sx (Lead) 1840 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.45 (Lead), 1.94 (Tail)	4628	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 19339' MD, 6526' TVD (BHL), 6530' (Deepest Point Drilled) Loggers TD (ft) 19339' MD

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

Plug back procedure N/A

Kick off depth (ft) 5900'

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 N/A

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
*PLEASE SEE ATTACHED EXHIBIT 1					

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
*PLEASE SEE ATTACHED EXHIBIT 2								

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6437' (TOP)	TVD	6795' (TOP) MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3000 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 10252 mcfpd Oil 223 bpd NGL --- bpd Water 0 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 Frontier Drilling LLC
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company Allied Horizontal
Address 381 Colonial Manor Rd City North Huntington State PA Zip 15642

Cementing Company C&J Energy Services
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Halliburton
Address 121 Champion Way Suite 200 City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by Karin Cox Telephone 303-357-7310
Signature  Title Permitting Agent Date 4/17/2009

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

API 47-095-02418 Farm Name Jarret W. Shepherd et al Well Number McKim Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	10/1/2018	19096.000	19194.000	60	Marcellus
2	10/1/2018	18895.192	19064.532	60	Marcellus
3	10/2/2018	18694.384	18863.724	60	Marcellus
4	10/2/2018	18493.576	18662.916	60	Marcellus
5	10/2/2018	18292.768	18462.108	60	Marcellus
6	10/2/2018	18091.960	18261.300	60	Marcellus
7	10/3/2018	17891.152	18060.492	60	Marcellus
8	10/3/2018	17690.344	17859.684	60	Marcellus
9	10/3/2018	17489.536	17658.876	60	Marcellus
10	10/4/2018	17288.728	17458.068	60	Marcellus
11	10/4/2018	17087.920	17257.260	60	Marcellus
12	10/4/2018	16887.112	17056.452	60	Marcellus
13	10/4/2018	16686.304	16855.644	60	Marcellus
14	10/5/2018	16485.496	16654.836	60	Marcellus
15	10/5/2018	16284.688	16454.028	60	Marcellus
16	10/6/2018	16083.880	16253.220	60	Marcellus
17	10/6/2018	15883.072	16052.412	60	Marcellus
18	10/8/2018	15682.264	15851.604	60	Marcellus
19	10/8/2018	15481.456	15650.796	60	Marcellus
20	10/9/2018	15280.648	15449.988	60	Marcellus
21	10/9/2018	15079.840	15249.180	60	Marcellus
22	10/10/2018	14879.032	15048.372	60	Marcellus
23	10/10/2018	14678.224	14847.564	60	Marcellus
24	10/11/2018	14477.416	14646.756	60	Marcellus
25	10/11/2018	14276.608	14445.948	60	Marcellus
26	10/12/2018	14075.800	14245.140	60	Marcellus
27	10/12/2018	13874.992	14044.332	60	Marcellus
28	10/13/2018	13674.184	13843.524	60	Marcellus
29	10/13/2018	13473.376	13642.716	60	Marcellus
30	10/14/2018	13272.568	13441.908	60	Marcellus
31	10/14/2018	13071.760	13241.100	60	Marcellus
32	10/15/2018	12870.952	13040.292	60	Marcellus
33	10/15/2018	12670.144	12839.484	60	Marcellus
34	10/16/2018	12469.336	12638.676	60	Marcellus
35	10/16/2018	12268.528	12437.868	60	Marcellus
36	10/16/2018	12067.720	12237.060	60	Marcellus
37	10/17/2018	11866.912	12036.252	60	Marcellus
38	10/17/2018	11666.104	11835.444	60	Marcellus
39	10/18/2018	11465.296	11634.636	60	Marcellus
40	10/18/2018	11264.488	11433.828	60	Marcellus
41	10/19/2018	11063.680	11233.020	60	Marcellus
42	10/19/2018	10862.872	11032.212	60	Marcellus
43	10/19/2018	10662.064	10831.404	60	Marcellus
44	10/20/2018	10461.256	10630.596	60	Marcellus
45	10/20/2018	10260.448	10429.788	60	Marcellus
46	10/20/2018	10059.640	10228.980	60	Marcellus
47	10/21/2018	9858.832	10028.172	60	Marcellus
48	10/21/2018	9658.024	9827.364	60	Marcellus
49	10/22/2018	9457.216	9626.556	60	Marcellus
50	10/22/2018	9256.408	9425.748	60	Marcellus
51	10/22/2018	9055.600	9224.940	60	Marcellus
52	10/23/2018	8854.792	9024.132	60	Marcellus
53	10/23/2018	8653.984	8823.324	60	Marcellus
54	10/24/2018	8453.176	8622.516	60	Marcellus
55	10/24/2018	8252.368	8421.708	60	Marcellus
56	10/24/2018	8051.560	8220.900	60	Marcellus
57	10/25/2018	7850.752	8020.092	60	Marcellus
58	10/25/2018	7649.944	7819.284	60	Marcellus
59	10/26/2018	7449.136	7618.476	60	Marcellus
60	10/26/2018	7248.328	7417.668	60	Marcellus
61	10/26/2018	7047.520	7216.860	60	Marcellus
62	10/27/2018	6846.712	7016.052	60	Marcellus

API 47-095-02418 Farm Name Jarret W. Shepherd et al Well Number McKim 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	10/1/2018	73.09	7531	0	3033	221330	6666.571	N/A
2	10/1/2018	71.24	7923	5940	3461	359820	7732.905	N/A
3	10/2/2018	75.28	8134	5803	3804	357060	7858.690	N/A
4	10/2/2018	72.99	8118	5643	3812	359780	7656.929	N/A
5	10/2/2018	70.40	7932	5430	3119	355760	9152.143	N/A
6	10/2/2018	70.60	7855	5611	3366	355720	7548.024	N/A
7	10/3/2018	71.55	7816	5738	3829	353200	7549.524	N/A
8	10/3/2018	71.00	7983	5636	3940	359120	7584.690	N/A
9	10/3/2018	73.50	8080	5170	3867	363610	8097.500	N/A
10	10/4/2018	71.30	7895	5577	3739	361140	7972.143	N/A
11	10/4/2018	73.26	8249	5423	4055	360660	7625.238	N/A
12	10/4/2018	74.30	8138	5199	3288	352280	7760.881	N/A
13	10/4/2018	75.00	8079	5244	3782	358780	7746.500	N/A
14	10/5/2018	73.30	8030	5537	3704	362500	7593.952	N/A
15	10/5/2018	72.51	8073	5608	3922	351700	7582.881	N/A
16	10/6/2018	67.60	8067	5453	4017	369950	9868.595	N/A
17	10/6/2018	75.48	8032	5510	3756	357700	7762.024	N/A
18	10/8/2018	75.22	7929	5691	3705	352820	7460.762	N/A
19	10/8/2018	76.80	7927	5743	3487	356800	7557.714	N/A
20	10/9/2018	77.00	7918	5721	3491	355820	8107.690	N/A
21	10/9/2018	73.80	8118	5676	3220	351680	7423.762	N/A
22	10/10/2018	72.23	7870	5880	3819	353920	7474.714	N/A
23	10/10/2018	71.31	7620	5298	3683	350340	7703.524	N/A
24	10/11/2018	70.49	7776	5641	3987	359760	9666.000	N/A
25	10/11/2018	79.10	7913	5248	3923	363320	7571.476	N/A
26	10/12/2018	73.10	7922	5703	4404	358700	7748.238	N/A
27	10/12/2018	73.10	7934	5799	3709	352840	9951.524	N/A
28	10/13/2018	71.17	7692	5434	3939	352080	8455.833	N/A
29	10/13/2018	69.28	7654	5342	3635	355860	7553.738	N/A
30	10/14/2018	72.10	7969	5797	4942	361720	9896.381	N/A
31	10/14/2018	72.80	7805	5317	3674	357760	8253.524	N/A
32	10/15/2018	73.49	7378	5783	3794	354560	9011.048	N/A
33	10/15/2018	75.26	7457	7072	4441	353320	7431.881	N/A
34	10/16/2018	75.40	7917	5911	4317	319060	7193.595	N/A
35	10/16/2018	69.63	7366	5432	4020	357460	7596.524	N/A
36	10/16/2018	73.85	7096	5613	3803	355120	7714.548	N/A
37	10/17/2018	70.12	7307	5956	3955	363000	7583.786	N/A
38	10/17/2018	78.09	7731	5830	3754	353780	7430.881	N/A
39	10/18/2018	74.85	7524	5119	3994	361200	7413.714	N/A
40	10/18/2018	71.66	7477	5596	3867	358000	7477.119	N/A
41	10/19/2018	74.98	7704	5876	3885	355340	9381.952	N/A
42	10/19/2018	71.54	7464	5863	3925	355280	8945.167	N/A
43	10/19/2018	78.09	7448	5997	3884	352220	7165.167	N/A
44	10/20/2018	72.10	7534	6319	3571	359040	7331.262	N/A
45	10/20/2018	72.18	7180	6251	3862	352980	7358.548	N/A
46	10/20/2018	73.91	7475	6259	3688	355200	7428.190	N/A
47	10/21/2018	67.21	7370	6926	3899	356120	8213.881	N/A
48	10/21/2018	80.00	7489	6357	3913	352120	7119.452	N/A
49	10/22/2018	80.50	7441	6067	3372	359240	7198.548	N/A
50	10/22/2018	74.59	7082	6469	3625	357880	7234.857	N/A
51	10/22/2018	75.90	7240	6830	3787	355800	8301.810	N/A
52	10/23/2018	70.90	6836	6442	3767	367800	7693.738	N/A
53	10/23/2018	76.00	7305	6569	3799	352600	7109.595	N/A
54	10/24/2018	75.60	6998	6545	3711	362880	7367.857	N/A
55	10/24/2018	71.35	6780	6661	3461	355840	7302.048	N/A
56	10/24/2018	77.70	6773	6773	3536	350640	7102.476	N/A
57	10/25/2018	71.16	6653	6598	3312	361220	7070.024	N/A
58	10/25/2018	78.40	7165	6987	3756	361040	7274.000	N/A
59	10/26/2018	79.20	6889	6117	3703	358360	6965.667	N/A
60	10/26/2018	74.48	6884	5985	3788	360520	7248.690	N/A
61	10/26/2018	77.85	7347	5404	3547	354040	7111.262	N/A
62	10/27/2018	77.82	7489	6062	3659	357120	7095.690	N/A
	AVG=	74	7,609	5,782	3,766	21,972,310	482,457	TOTAL

API 47-095-02418 Farm Name Jarret W. Shepherd et al Well Number McKim 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
Silty Sandstone	0	227	0	227
Sandy siltstone	est 227	667	est 227	667
Sandstone	est 667	887	est 667	887
Silty Sandstone	est 887	997	est 887	997
limey siltstone	est 997	1,147	est 997	1,147
silty sandstone, tr. coal	est 1147	1,287	est 1147	1,287
silty sandstone	est 1287	1,367	est 1287	1,367
silty shale	est 1367	1,587	est 1367	1,587
sandstone, tr coal	est 1587	1,647	est 1587	1,647
silty sandstone	est 1647	1,667	est 1647	1,667
sandstone	est 1667	1,807	est 1667	1,807
sandy shale	est 1807	1,887	est 1807	1,887
shaly sand	est 1887	2,056	est 1887	2,085
Big Lime	2,056	2,292	2,085	2,330
Big Injun	2,292	2,643	2,330	2,691
Gantz Sand	2,643	3,085	2,691	3,143
Fifty Foot Sandstone	3,085	2,968	3,143	3,022
Gordon	2,968	3,085	3,022	3,143
Fifth Sandstone	3,085	3,504	3,143	3,428
Bayard	3,504	3,647	3,428	3,727
Warren	3,647	4,034	3,727	4,130
Speechley	4,034	4,281	4,130	4,385
Balltown	4,281	4,746	4,385	4,867
Bradford	4,746	5,104	4,867	5,240
Benson	5,104	5,319	5,240	5,462
Alexander	5,319	5,857	5,462	6,013
Rhinestreet	5,857	6,209	6,013	6,398
Sycamore	6,209	6,310	6,398	6,536
Middlesex	6,310	6,406	6,536	6,713
Burkett	6,406	6,423	6,713	6,755
Tully	6,423	6,437	6,755	6,795
Marcellus	6,437	NA	6,795	NA

*Please note Antero determines 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.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/1/2018
Job End Date:	10/27/2018
State:	West Virginia
County:	Tyler
API Number:	47-095-02418-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Mckim 1H
Latitude:	39.38560300
Longitude:	-80.95145700
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,530
Total Base Water Volume (gal):	9,966,074
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
Fresh Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	78.68395	Density = 8.340
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.41464	

				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.							
			Crystalline silica, quartz	14808-60-7	100.00000	20.80267	
			Hydrochloric acid	7647-01-0	15.00000	0.04811	
			Guar gum	9000-30-0	100.00000	0.04062	
			Inorganic salt	Proprietary	30.00000	0.03283	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.03283	
			Acrylamide acrylate copolymer	Proprietary	30.00000	0.03283	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Ethylene Glycol	107-21-1	60.00000	0.01534	
			Glutaraldehyde	111-30-8	30.00000	0.00467	
			Neutralized Polyacrylic Emulsion	Proprietary	10.00000	0.00256	
			Sodium persulfate	7775-27-1	100.00000	0.00146	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00078	
			Ethanol	64-17-5	1.00000	0.00016	
			Methanol	67-56-1	0.14000	0.00002	
			Phosphoric acid	7664-38-2	0.10000	0.00002	
			Sodium sulfate	7757-82-6	0.10000	0.00000	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%
 *** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)

LATITUDE 39°25'00"

9.805'

LATITUDE 39°22'30"

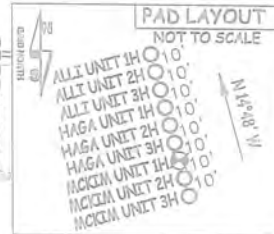
4.092' TO BOTTOM HOLE

Antero Resources Corporation Well No. McKim Unit 1H

AS DRILLED DATA:
 WELL 1H TOP HOLE INFORMATION:
 N: 325,805ft E: 1,589,790ft
 LAT: 39°23'07.54" LON: 80°57'04.88"
 BOTTOM HOLE INFORMATION:
 N: 314,459ft E: 1,595,325ft
 LAT: 39°21'16.29" LON: 80°56'52.09"
 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.

05/03/2019

(NAD) 83 (UTM) ZONE 17 COORDS:
 WELL 1H TOP HOLE INFORMATION:
 N: 4,359,559m E: 504,204m
 BOTTOM HOLE INFORMATION:
 N: 4,356,131m E: 505,948m



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 +/-
 (Symbol) Proposed Well Path
 (Symbol) As-Drilled Well Path
 DOUGLAS R. ROWE P.S. 2202
 DATE 02/13/19
 OPERATOR'S WELL # McKim Unit 1H

JOB # 16-062WA
 DRAWING # MCKIMHAD
 SCALE 1" = 2000'
 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
 LOCATION: ELEVATION 1,172' - AS BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
 QUADRANGLE MIDDLEBOURNE 7.5' (TH) PENNSBORO 7.5' (BH) DISTRICT MEADE COUNTY TYLER
 SURFACE OWNER JARRET W. SHEPHERD ET AL ACREAGE 83.14 ACRES +/-
 OIL & GAS ROYALTY OWNER JOELYNN FAMILY TRUST; JOE-DOM INC.; RUTH M. HUFFORD; VELDA M. BISHOP; ELLEEN WILLIAMS; OLEY J. BISHOP; HAUGHT FAMILY TRUST; RONALD L. RIDGWAY ET UX; WILLIAM F. ZICKEFOOSE LEASE ACREAGE 431.53 AC +/- 380 AC +/- 93.78 AC +/- 70 AC +/- 47 AC +/- 50 AC +/- 323 AC +/- 45.25 AC +/- 45 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 6,526' TVD 19,339' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
 ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD
 DENVER, CO 80202 CHARLESTON, WV 25313

7.450' TO BOTTOM HOLE

11.378'

LONGITUDE 80°55'00"

LONGITUDE 80°55'00"