



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

June 3, 2020

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

To Whom It May Concern:

Please find enclosed the Well Operator's Report of Well Work, Form WR-35 (including As-Drilled Survey Plat, Directional Survey and FracFocus report), Discharge Monitoring Report Form WR-34 and corresponding logs for the following wells off of the **Dawson Pad**:

- Dierkes Unit 1H-2H
- Kirk Hadley Unit 1H
- Treasury Unit 1H-2H
- Weese Unit 1H-2H

If you have any questions, please feel free to contact me at (303)-357-7223.

Sincerely,

A handwritten signature in black ink, appearing to read "Megan Griffith", with a long horizontal flourish extending to the right.

Megan Griffith  
Permitting Agent  
Antero Resources Corporation

Enclosures

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

API 47-095-02557 County Tyler District Meade  
Quad Middlebourne 7.5' Pad Name Kirk Hadley Pad Field/Pool Name ----  
Farm name Kirk L. Hadley Well Number Treasury Unit 2H  
Operator (as registered with the OOG) Antero Resources Corporation  
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4368208.097m Easting 505840.963m  
Landing Point of Curve Northing 4368499.99m Easting 506484.03m  
Bottom Hole Northing 4372747.106m Easting 505027.408m

Elevation (ft) 912' 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 1/30/2019 Date drilling commenced 8/2/2019 Date drilling ceased 9/23/2019  
Date completion activities began 2/22/2020 Date completion activities ceased 3/1/2020  
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 142', 242', 349' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1225', 1691', 2032' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft 527', 681' Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

Reviewed by:  
\_\_\_\_\_

API 47-095 - 02557 Farm name Kirk L. Hadley Well number Treasury Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	105'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	476'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2730'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	21927'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6897'		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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	204 sx	15.6	1.18	120	0'	8 Hrs.
Surface	Class A	401 sx	15.6	1.18	826	0'	8 Hrs.
Coal							
Intermediate 1	Class A	933 sx	15.6	1.18	1181	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	450 sx (Lead) 3384 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.53 (Lead), 1.83 (Tail)		~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 21947' MD, 6166' TVD (BHL), 6167' (Deepest Point Drilled) Loggers TD (ft) 21947' MD

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

Plug back procedure N/A

Kick off depth (ft) 5700'

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

API 47-095 - 02557 Farm name Kirk L. Hadley Well number Treasury Unit 2H

PERFORATION RECORD

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

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

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

Please insert additional pages as applicable.

API 47-095-02557 Farm name Kirk L. Hadley Well number Treasury Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6157' (TOP)</u>	<u>TVD</u>	<u>6927' (TOP) MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 6261 mcfpd Oil 209 bpd NGL --- bpd Water 596 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

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

**\*PLEASE SEE ATTACHED EXHIBIT 3**


Please insert additional pages as applicable.

Drilling Contractor Patterson UTI Drilling  
Address 1660 Wynkoop Street, Suite 1100 City Denver State CO Zip 80202

Logging Company KLX Energy Services  
Address 3040 Post Oak Boulevard City Houston State TX Zip 77056

Cementing Company Halliburton Energy Services  
Address 1125 17th Street City Denver State CO Zip 80202

Stimulating Company Baker Hughes  
Address 837 Philippi Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223  
Signature  Title Permitting Agent Date 6/3/20

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

**API 47-095-02557 Farm Name Kirk L. Hadley Well Number Treasury Unit 2H**

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	12/23/2019	21794.7	21750.7	60	Marcellus
2	12/23/2019	21713.42365	21549.0419	60	Marcellus
3	12/24/2019	21513.76554	21349.3838	60	Marcellus
4	12/24/2019	21314.10743	21149.7257	60	Marcellus
5	12/25/2019	21114.44932	20950.0676	60	Marcellus
6	12/25/2019	20914.79122	20750.4095	60	Marcellus
7	12/26/2019	20715.13311	20550.7514	60	Marcellus
8	12/27/2019	20515.475	20351.0932	60	Marcellus
9	12/27/2019	20315.81689	20151.4351	60	Marcellus
10	12/28/2019	20116.15878	19951.777	60	Marcellus
11	12/28/2019	19916.50068	19752.1189	60	Marcellus
12	12/28/2019	19716.84257	19552.4608	60	Marcellus
13	12/29/2019	19517.18446	19352.8027	60	Marcellus
14	12/29/2019	19317.52635	19153.1446	60	Marcellus
15	12/30/2019	19117.86824	18953.4865	60	Marcellus
16	12/30/2019	18918.21014	18753.8284	60	Marcellus
17	12/31/2019	18718.55203	18554.1703	60	Marcellus
18	1/1/2020	18518.89392	18354.5122	60	Marcellus
19	1/1/2020	18319.23581	18154.8541	60	Marcellus
20	1/2/2020	18119.5777	17955.1959	60	Marcellus
21	1/2/2020	17919.91959	17755.5378	60	Marcellus
22	1/2/2020	17720.26149	17555.8797	60	Marcellus
23	1/3/2020	17520.60338	17356.2216	60	Marcellus
24	1/3/2020	17320.94527	17156.5635	60	Marcellus
25	1/3/2020	17121.28716	16956.9054	60	Marcellus
26	1/4/2020	16921.62905	16757.2473	60	Marcellus
27	1/4/2020	16721.97095	16557.5892	60	Marcellus
28	1/4/2020	16522.31284	16357.9311	60	Marcellus
29	1/5/2020	16322.65473	16158.273	60	Marcellus
30	1/5/2020	16122.99662	15958.6149	60	Marcellus
31	1/6/2020	15923.33851	15758.9568	60	Marcellus
32	1/6/2020	15723.68041	15559.2986	60	Marcellus
33	1/6/2020	15524.0223	15359.6405	60	Marcellus
34	1/7/2020	15324.36419	15159.9824	60	Marcellus
35	1/7/2020	15124.70608	14960.3243	60	Marcellus
36	1/7/2020	14925.04797	14760.6662	60	Marcellus
37	1/8/2020	14725.38986	14561.0081	60	Marcellus
38	1/8/2020	14525.73176	14361.35	60	Marcellus
39	1/9/2020	14326.07365	14161.6919	60	Marcellus
40	1/9/2020	14126.41554	13962.0338	60	Marcellus
41	1/9/2020	13926.75743	13762.3757	60	Marcellus

42	1/9/2020	13727.09932	13562.7176	60	Marcellus
43	1/10/2020	13527.44122	13363.0595	60	Marcellus
44	1/10/2020	13327.78311	13163.4014	60	Marcellus
45	1/10/2020	13128.125	12963.7432	60	Marcellus
46	1/10/2020	12928.46689	12764.0851	60	Marcellus
47	1/11/2020	12728.80878	12564.427	60	Marcellus
48	1/11/2020	12529.15068	12364.7689	60	Marcellus
49	1/11/2020	12329.49257	12165.1108	60	Marcellus
50	1/11/2020	12129.83446	11965.4527	60	Marcellus
51	1/12/2020	11930.17635	11765.7946	60	Marcellus
52	1/12/2020	11730.51824	11566.1365	60	Marcellus
53	1/12/2020	11530.86014	11366.4784	60	Marcellus
54	1/12/2020	11331.20203	11166.8203	60	Marcellus
55	1/12/2020	11131.54392	10967.1622	60	Marcellus
56	1/13/2020	10931.88581	10767.5041	60	Marcellus
57	1/13/2020	10732.2277	10567.8459	60	Marcellus
58	1/13/2020	10532.56959	10368.1878	60	Marcellus
59	1/13/2020	10332.91149	10168.5297	60	Marcellus
60	1/13/2020	10133.25338	9968.87162	60	Marcellus
61	1/14/2020	9933.59527	9769.21351	60	Marcellus
62	1/14/2020	9733.937162	9569.55541	60	Marcellus
63	1/14/2020	9534.279054	9369.8973	60	Marcellus
64	1/14/2020	9334.620946	9170.23919	60	Marcellus
65	1/15/2020	9134.962838	8970.58108	60	Marcellus
66	1/15/2020	8935.30473	8770.92297	60	Marcellus
67	1/15/2020	8735.646622	8571.26486	60	Marcellus
68	1/15/2020	8535.988514	8371.60676	60	Marcellus
69	1/16/2020	8336.330405	8171.94865	60	Marcellus
70	1/16/2020	8136.672297	7972.29054	60	Marcellus
71	1/16/2020	7937.014189	7772.63243	60	Marcellus
72	1/16/2020	7737.356081	7572.97432	60	Marcellus
73	1/17/2020	7537.697973	7373.31622	60	Marcellus
74	1/17/2020	7338.039865	7173.65811	60	Marcellus

7138.381757

6974

## EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	12/23/2019	78.1	8925	6938	3336	161940	5240.048	N/A
2	12/23/2019	84.59	9534	5509	4028	405200	7513.429	N/A
3	12/24/2019	82.33	9264	5728	3770	406060	7503.119	N/A
4	12/24/2019	84.47	8838	5682	3824	407160	7507.976	N/A
5	12/25/2019	85.5	9405	5743	3712	401140	7372.738	N/A
6	12/25/2019	84.46	8812	6420	3578	409265	7597.524	N/A
7	12/26/2019	85.5	8888	5650	3689	406280	7357.976	N/A
8	12/27/2019	81.96	8807	5986	3498	410220	7478.024	N/A
9	12/27/2019	85.15	9403	5620	3734	407680	7390.095	N/A
10	12/28/2019	86.16	8881	5249	3689	400220	7402.667	N/A
11	12/28/2019	85.83	9089	5742	3610	403120	7251.833	N/A
12	12/28/2019	84.55	8822	5512	3655	400760	7310.024	N/A
13	12/29/2019	83.2	9120	4958	3981	401940	7324.452	N/A
14	12/29/2019	83.64	9100	5804	3890	408660	7250.286	N/A
15	12/30/2019	85.7	8636	5536	3707	402800	7215.881	N/A
16	12/30/2019	84.42	8766	6669	3716	400100	7252.167	N/A
17	12/31/2019	82.1	9480	5585	3791	402460	7842.19	N/A
18	1/1/2020	76.4	8221	5280	3396	404700	7084.405	N/A
19	1/1/2020	83.01	8752	5881	3332	407960	7455.667	N/A
20	1/2/2020	79.42	8205	5334	3476	399120	6964.357	N/A
21	1/2/2020	82.7	8720	5756	3636	408600	7467.976	N/A
22	1/2/2020	83.79	9019	6033	3624	409980	7286.024	N/A
23	1/3/2020	79	8337	5644	3705	411620	6995.405	N/A
24	1/3/2020	81.57	8986	6599	3633	406880	7295.357	N/A
25	1/3/2020	78.55	8413	5961	3522	410560	6933.214	N/A
26	1/4/2020	79.71	8538	5559	3675	406220	6892.714	N/A
27	1/4/2020	85.34	8926	6337	3457	405400	7243.952	N/A
28	1/4/2020	77.94	8460	5846	3482	407900	7141.19	N/A
29	1/5/2020	80.63	8651	6426	3681	406380	7209.024	N/A
30	1/5/2020	80.73	8749	5775	3718	406560	7189.238	N/A
31	1/6/2020	79.77	8229	5786	3733	402900	6907.571	N/A
32	1/6/2020	85.33	8994	5664	3743	402960	6961.667	N/A
33	1/6/2020	83.54	8545	5234	3639	405960	6895.452	N/A
34	1/7/2020	77.4	8116	4903	3621	399600	6780.167	N/A
35	1/7/2020	84.38	9043	5639	3584	403060	6965.667	N/A
36	1/7/2020	81.55	8558	5607	3410	402220	6989.905	N/A
37	1/8/2020	81.23	8606	6133	3484	404400	6848.762	N/A
38	1/8/2020	83.9	9012	6289	3487	406500	6935.262	N/A
39	1/9/2020	81.97	8874	5230	4266	404580	6887.619	N/A
40	1/9/2020	85.78	9073	5992	3544	404140	6896.881	N/A
41	1/9/2020	85.75	8987	6275	2463	404360	6883.548	N/A
42	1/9/2020	82.62	8303	6450	3524	405940	6871.214	N/A
43	1/10/2020	84.65	8660	6193	3611	407860	6915.095	N/A
44	1/10/2020	85.9	9011	6749	3603	405620	6939.31	N/A
45	1/10/2020	85.76	8999	5732	3433	405680	6926.333	N/A
46	1/10/2020	83.99	8205	5659	3550	401480	6845.548	N/A
47	1/11/2020	83.9	8186	6026	3566	409600	7098.667	N/A



48	1/11/2020	84.56	9077	5912	3610	408340	6997.952	N/A
49	1/11/2020	85.9	9031	6418	3696	406560	6851.905	N/A
50	1/11/2020	85.77	8335	6050	3579	403680	6824.19	N/A
51	1/12/2020	85.36	8351	6396	3435	405320	6814.381	N/A
52	1/12/2020	85.9	8709	5914	3336	404400	6724.452	N/A
53	1/12/2020	85.9	8806	6021	3387	401260	6797.524	N/A
54	1/12/2020	85.9	8679	5606	3553	399580	7352.524	N/A
55	1/12/2020	85.79	8019	5555	3390	398320	6802.667	N/A
56	1/13/2020	85.55	7949	5846	3485	404760	6799.167	N/A
57	1/13/2020	85.9	8782	6076	3406	402100	6643.667	N/A
58	1/13/2020	84.77	8845	5785	3323	401280	6701.167	N/A
59	1/13/2020	85.8	8396	6105	3378	402440	6679.881	N/A
60	1/13/2020	85.57	7957	6167	3412	404000	6717.381	N/A
61	1/14/2020	85.54	8150	6123	3433	398340	6692.595	N/A
62	1/14/2020	84.9	8355	6157	3679	399120	6726.119	N/A
63	1/14/2020	85.5	8563	5254	3590	402820	6636.024	N/A
64	1/14/2020	85.5	7839	6634	4055.03	402420	6827.976	N/A
65	1/15/2020	85.8	7741	6074	3532	405620	6806.5	N/A
66	1/15/2020	84.9	8190	5029	3473	403940	6714.048	N/A
67	1/15/2020	85.9	8095	6069	3446	406500	6735.762	N/A
68	1/15/2020	85.43	8110	4899	3570	406120	6798.333	N/A
69	1/16/2020	85.57	7895	5058	3402	405180	6783.952	N/A
70	1/16/2020	85.3	7684	5180	3279	401400	6702.095	N/A
71	1/16/2020	85.3	8040	4813	3358	401440	6658.095	N/A
72	1/16/2020	64.01	8913	4958	5344	406220	8612.214	N/A
73	1/17/2020	64.55	8856	5730	4698	398580	8217.476	N/A
74	1/17/2020	81.9	7364	6022	5050	403640	6688.19	N/A
75	1/17/2020	85.2	7106	5799	3059	403320	6565.429	N/A
	<b>AVG.</b>	<b>82.4</b>	<b>8,813</b>	<b>5,776</b>	<b>3,654</b>	<b>15,559,065</b>	<b>279,141</b>	<b>TOTAL</b>

**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Siltstone	75	175	75	175
Silty Sandstone	175	295	175	295
Siltstone	295	455	295	455
Shaly Siltstone	455	555	455	555
Siltstone	555	715	555	715
Sandstone	715	755	715	755
Siltstone	755	985	755	985
Silty Sandstone	985	1,095	985	1,095
Sandstone	1,095	1,255	1,095	1,255
Silty Sandstone	1,255	1,485	1,255	1,485
Sandy Siltstone	1,485	1,555	1,485	1,555
Sandstone	1,555	1,625	1,555	1,625
Siltstone	1,625	1,664	1,625	1,750
Big Lime	1,689	2,251	1,725	2,388
Fifty Foot Sandstone	2,251	2,482	2,363	2,639
Gordon	2,482	2,778	2,614	2,959
Fifth Sandstone	2,778	2,884	2,934	3,077
Bayard	2,884	3,728	3,052	4,020
Speechley	3,728	3,871	3,995	4,179
Balltown	3,871	4,474	4,154	4,854
Bradford	4,474	4,672	4,829	5,074
Benson	4,672	5,027	5,049	5,466
Alexander	5,027	6,056	5,441	6,667
Sycamore	5,933	6,031	6,489	6,642
Middlesex	6,031	6,120	6,642	6,836
Burkett	6,120	6,141	6,836	6,885
Tully	6,141	6,157	6,885	6,927
Marcellus	6,157	NA	6,927	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.

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Discharge Monitoring Report  
Oil and Gas General Permit

Company Name: Antero Resources Corporation  
API No: 47-095-02557 County: Tyler  
District: Meade Well No: Treasury Unit 2H  
Farm Name: Kirk L. Hadley  
Discharge Date/s From:(MMDDYY) 04/13/20 To: (MMDDYY) 05/13/20  
Discharge Times. From: 0:00 To: 24:00  
Total Volume to be Disposed from this facility (gallons): 765,688  
Disposal Option(s) Utilized (write volumes in gallons):

(1) Land Application: 0 (Include a topographical map of the Area.)  
(2) UIC: 43,505 Permit No. 3400923821; 3416729543; 3412123995; 3410523619  
(3) Offsite Disposal: 205 Site Location: Mud Masters  
(4) Reuse: 721,978 Alternate Permit Number: \_\_\_\_\_  
(5) Centralized Facility: 0 Permit No. \_\_\_\_\_  
(6) Other method: 0 (Include an explanation)

Follow Instructions below to determine your treatment category:

Optional Pretreatment test: N/A Cl- mg/l N/A DO mg/l

1. Do you have permission to use expedited treatment from the Director or his representative?  
(Y/N) N/A If yes, who? \_\_\_\_\_ and place a four (4) on line 7.  
If not go to line 2
2. Was Frac Fluid or flowback put into the pit? (Y/N) N/A If yes, go to line 5. If not, go to line 3.
3. Do you have a chloride value pretreatment (see above)? (Y/N) N/A If yes, go to line 4  
If not, go to line 5.
4. Is the Chloride level less than 5000 mg/l? (Y/N) N/A If yes, then enter a one (1) on line 7.
5. Do you have a pretreatment value for DO? (See above) (Y/N) N/A If yes, go to line 6  
If not, enter a three (3) in line 7.
6. Is the DO level greater than 2.5 mg/l?(Y/N) N/A If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
7. N/A is the category of your pit. Use the Appropriate section.
8. Comments on Pit condition: \_\_\_\_\_  
N/A No Pit on-site.

Name of Principal Exec. Officer: Gretchen Kohler

Title of Officer: Sr. Environmental & Regulatory Manager

Date Completed: 05/28/2020

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Gretchen Kohler

Digitally signed by Gretchen Kohler  
Date: 2020.05.28 17:17:05 -08'00'

Signature of a Principal Exec. Officer or Authorized agent.

Category 1  
Sampling Results  
API No : \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	5	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl	5,000	_____	5,000	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

\*\*\* Al is only reported if the pH is above 9.0

Category 2  
Sampling Results  
API No : \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	10	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

\* Can be 25,000 with inspector's approval,

(Inspector's signature): \_\_\_\_\_

Date: \_\_\_\_\_

\*\* Include a description of your aeration technique.

Aeration Code: \_\_\_\_\_

\*\*\* Al is only reported if the pH is above 9.0

Category 3  
Sampling Results

API No : \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	20	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

\* Can be 25,000 with inspector's approval,

(Inspector's signature): \_\_\_\_\_

Date: \_\_\_\_\_

\*\* Include a description of your aeration technique.

Aeration Code: \_\_\_\_\_

\*\*\* Al is only reported if the pH is above 9.0.

Category 4  
Sampling Results

API No: \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	1	_____	N/A	N/A	Days
Fe	Monitor	_____	Monitor	_____	mg/l
D.O.	Monitor	_____	Monitor	_____	mg/l
Settleable Sol.	Monitor	_____	Monitor	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Activated Carbon (0.175)		_____	N/A	N/A	lb/Bl
Date Site Reclaimed	N/A	N/A			10 days from dis.
Disposal Area		_____	Monitor	_____	Acres

\* Can be 25,000 with inspector's approval,

(Inspector's signature): \_\_\_\_\_

Date: \_\_\_\_\_



# ANTERO RESOURCES CORPORATION

Location: Tyler County, WV  
 Slot: Slot #08  
 Field: Treasury Unit 2H  
 Wellbore: Treasury Unit 2H PWB

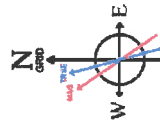
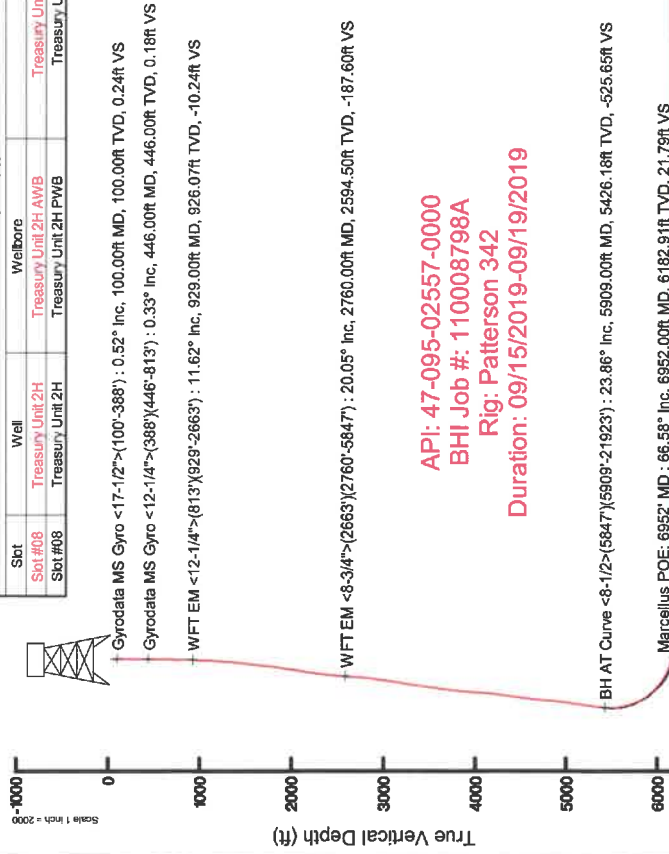


Plot reference wellpath is Treasury Unit 2H PWP Rev-A.0  
 True vertical depths are referenced to Patterson 342 (RKB)  
 Measured depths are referenced to Patterson 342 (RKB)  
 Patterson 342 (RKB) to Mean Sea Level: 937 feet  
 Mean Sea Level to Ground level (At Slot: Slot #08) : -912 feet  
 Coordinates are in feet referenced to Slot

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Kirk Hadley Pad	1659520.850	14330579.820	80°55'56.326"W
Slot #08	68.95	11.85	80°55'56.174"W
Patterson 342 (RKB) to Ground level (At Slot: Slot #08)	1659532.497	14330668.742	25R
Mean Sea Level to Ground level (At Slot: Slot #08)	-912R		
Patterson 342 (RKB) to Mean Sea Level	937R		

Well Profile Data					
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	VS (ft)
Tie On	5647.00	24.380	84.550	5369.59	176.89
Pre, To Bottom	5923.00	24.380	84.550	5436.81	181.87
End of 3D Arc	6644.51	50.393	355.043	6043.34	496.86
POE	6645.86	71.252	341.040	6190.00	751.21
Landing Pt.	7180.20	90.000	341.040	6226.00	966.91
BHL	21926.44	90.000	341.040	14915.12	-2635.64
					0.00
					14962.25

Well Data	
Slot	Wellbore
Slot #08	Treasury Unit 2H AWB
Slot #08	Treasury Unit 2H PWB



API: 47-095-02557-0000  
 BHI Job #: 110008798A  
 Rig: Patterson 342  
 Duration: 09/15/2019-09/19/2019

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/23/2019
Job End Date:	1/17/2020
State:	West Virginia
County:	Tyler
API Number:	47-095-02557-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Treasury 2H
Latitude:	39.46335280
Longitude:	-80.93226940
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,235
Total Base Water Volume (gal):	23,343,078
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
Produced Mixture	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.67061	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.16266	

OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker												
							Listed Below							
FDP-S1296-17	Halliburton	Acid Corrosion Inhibitor												
							Listed Below							
LD-2950	MultiChem	Friction Reducer												
							Listed Below							
Legend LD-2555	MultiChem	Additive												
							Listed Below							
MC B-8614	Halliburton	Biocide												
							Listed Below							
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant												
							Listed Below							
HYDROCHLORI C ACID, 22 BAUME	Halliburton	Solvent												
							Listed Below							
Legend LD-2990	MultiChem	Friction Reducer												
							Listed Below							



WG-36 GELLING AGENT	Halliburton	Gelling Agent								
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.										
					Listed Below					
			Crystalline silica, quartz	14808-60-7		100.00000			13.14389	
			Hydrochloric acid	7647-01-0		30.00000			0.04052	
			Complex Amine Compound	Proprietary		60.00000			0.00990	
			Hydrotreated light petroleum distillate	64742-47-8		30.00000			0.00963	
			Complex Amine Compound	Proprietary		60.00000			0.00935	
			Guar gum	9000-30-0		100.00000			0.00582	
			Glutaraldehyde	111-30-8		30.00000			0.00250	
			Polyethoxylated fatty amine salt	61791-26-2		30.00000			0.00115	
			Surfactant	Proprietary		5.00000			0.00078	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8		5.00000			0.00078	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1		5.00000			0.00042	
			Methanol	67-56-1		100.00000			0.00032	
			Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega-hydroxy-, branched	69011-36-5		1.00000			0.00017	
			Adipic acid	124-04-9		1.00000			0.00017	
			Ethoxylated alcohols	Proprietary		1.00000			0.00017	
			Organic chlorodie compound	Proprietary		1.00000			0.00016	
			Ethoxylated alcohols	Proprietary		1.00000			0.00016	
			Alkoxyated polyhydric alcohol	Proprietary		1.00000			0.00016	
			Ammonium persulfate	7727-54-0		100.00000			0.00012	
			Ethanol	64-17-5		1.00000			0.00008	

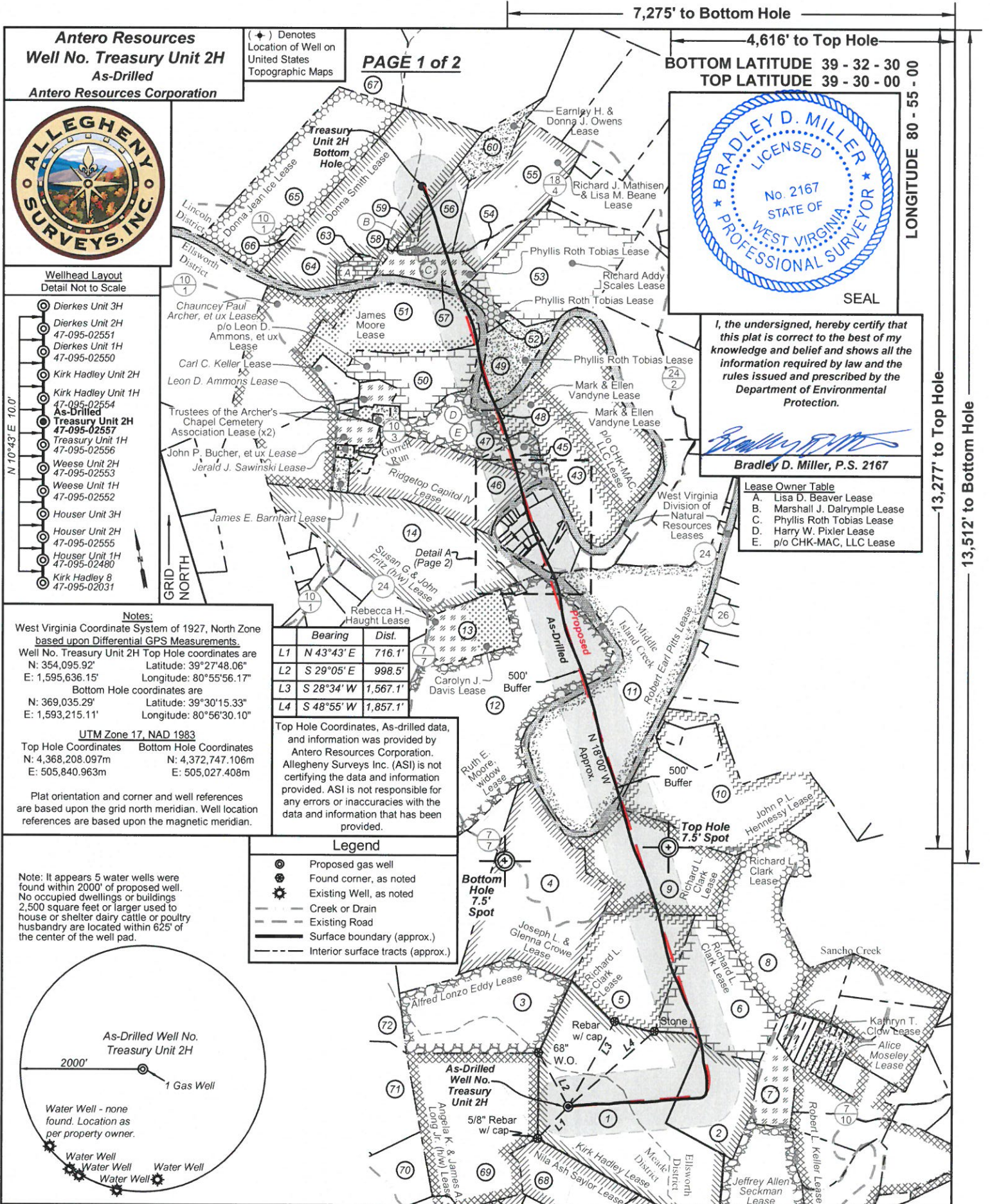
					61790-12-3	30.00000	0.00007	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil		Proprietary	30.00000	0.00007	
			Modified thiourea polymer		Proprietary	30.00000	0.00004	
			Oxylated phenolic resin		Proprietary	0.10000	0.00002	
			Organic salt #1		79-06-1	0.10000	0.00002	
			Acrylamide		Proprietary	5.00000	0.00001	
			Ethoxylated alcohols		629-73-2	5.00000	0.00001	
			Hexadecene		107-19-7	5.00000	0.00001	
			Propargyl alcohol		7664-38-2	0.10000	0.00001	
			Phosphoric acid		Proprietary	0.01000	0.00000	
			Nitrated acetate salt		Proprietary	0.01000	0.00000	
			Organic salt #2		50-00-0	0.01000	0.00000	
			Formaldehyde		1310-73-2	0.01000	0.00000	
			Sodium hydroxide		2836-32-0	0.01000	0.00000	
			Sodium glycollate		Proprietary	0.01000	0.00000	
			Organic salt #3		3468-63-1	1.00000	0.00000	
			C.I. pigment Orange 5					

\* 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)

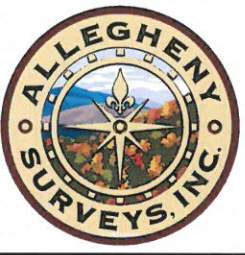


**Antero Resources**  
**Well No. Treasury Unit 2H**  
 As-Drilled  
 Antero Resources Corporation

(+) Denotes  
 Location of Well on  
 United States  
 Topographic Maps

PAGE 1 of 2

7,275' to Bottom Hole  
 4,616' to Top Hole  
 BOTTOM LATITUDE 39 - 32 - 30  
 TOP LATITUDE 39 - 30 - 00  
 LONGITUDE 80 - 55 - 00



- Wellhead Layout**  
 Detail Not to Scale
- Dierkes Unit 3H
  - Dierkes Unit 2H 47-095-02551
  - Dierkes Unit 1H 47-095-02550
  - Kirk Hadley Unit 2H
  - Kirk Hadley Unit 1H 47-095-02554
  - As-Drilled Treasury Unit 2H 47-095-02557
  - Treasury Unit 1H 47-095-02556
  - Weese Unit 2H 47-095-02553
  - Weese Unit 1H 47-095-02552
  - Houser Unit 3H
  - Houser Unit 2H 47-095-02555
  - Houser Unit 1H 47-095-02480
  - Kirk Hadley 8 47-095-02031

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**

**Lease Owner Table**

A.	Lisa D. Beaver Lease
B.	Marshall J. Dalrymple Lease
C.	Phyllis Roth Tobias Lease
D.	Harry W. Pixler Lease
E.	p/o CHK-MAC, LLC Lease

**Notes:**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Treasury Unit 2H Top Hole coordinates are  
 N: 354,095.92' Latitude: 39°27'48.06"  
 E: 1,595,636.15' Longitude: 80°55'56.17"  
 Bottom Hole coordinates are  
 N: 369,035.29' Latitude: 39°30'15.33"  
 E: 1,593,215.11' Longitude: 80°56'30.10"

Bearing	Dist.
L1 N 43°43' E	716.1'
L2 S 29°05' E	998.5'
L3 S 28°34' W	1,567.1'
L4 S 48°55' W	1,857.1'

**UTM Zone 17, NAD 1983**  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,368,208.097m N: 4,372,747.106m  
 E: 505,840.963m E: 505,027.408m

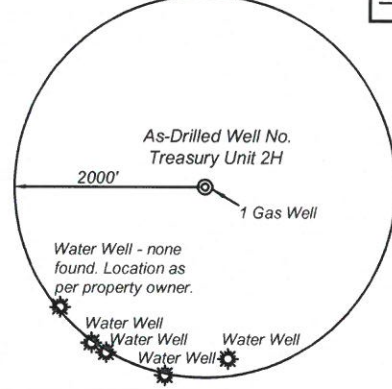
Top Hole Coordinates, As-drilled data, and information was provided by Antero Resources Corporation. Allegheny Surveys Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

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 corner, as noted
- ⊙ Existing Well, as noted
- - - Creek or Drain
- - - Existing Road
- Surface boundary (approx.)
- - - Interior surface tracts (approx.)

Note: It appears 5 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.



FILE NO: 101-54-E-18  
 DRAWING NO: Treasury 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: April 23 20 20  
 OPERATOR'S WELL NO. Treasury Unit 2H  
 API WELL NO  
 47 - 095 - 02557  
 STATE COUNTY PERMIT

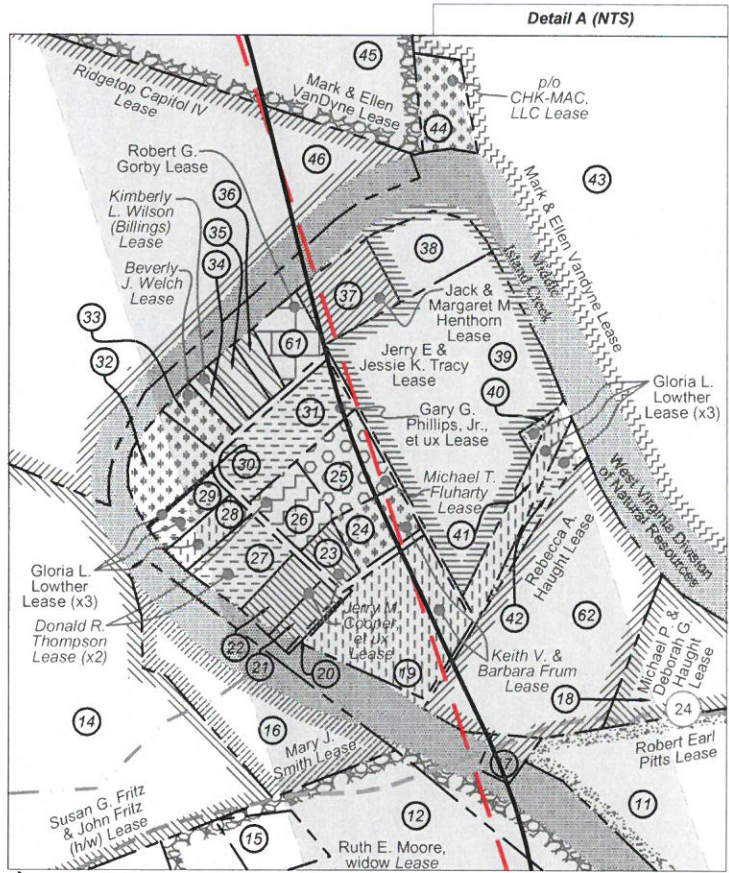
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: As-Built 912' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne  
 DISTRICT: Meade, Ellsworth, Lincoln  
 SURFACE OWNER: Kirk L. Hadley  
 ROYALTY OWNER: Kirk Hadley; Richard L. Clark(3); John P.L. Hennessy; Robert Earl Pitts;  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,947' MD

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

No.	TM - Par.	Bk / Pg	Acres	Owner(s)
54	13 - 3.4	415 / 733	7.505	Justin L. & Jessica Carpenter
53	13 - 5	393 / 473	78.00	Richard Addy Scales
52	13 - 7	387 / 671	6.04	Robert D. & Sherry A. Ball
51	13 - 8	WB43 / 425	56.98	Larry Moore & James Moore
50	13 - 8.1	371 / 36	35.11	Leon B. & Deanna N. Ammons
49	13 - 6	387 / 671	21.42	Robert D. & Sherry A. Ball
48	19 - 4	388 / 250	1.20	Harry Wayne Pixler
47	19 - 56	390 / 553	23.56	Mark L. & Ellen W. VanDyne
46	19 - 33	308 / 18	60.12	Ridgetop Capitol IV
45	19 - 55	333 / 208	9.55	Mark & Ellen VanDyne
44	19 - 5	471 / 812	0.89	Ruth A. McDonald
43	20 - 1	210 / 37	126.90	Mark L. & Ellen W. VanDyne
42	19 - 29	39 / 506	0.39	Gloria L. Lowther
41	19 - 28	39 / 506	0.083	Gloria L. Lowther
40	19 - 27	39 / 506	0.08	Gloria L. Lowther
39	19 - 6	245 / 651	8.05	Jerry E. & Jessie K. Tracy
38	19 - 7	337 / 653	0.77	Jerry E. & Jessie K. Tracy
37	19 - 26	326 / 86	0.60	Jack & Margaret M. Henthorn
36	19 - 9	355 / 675	0.23	Kimberly L. Billings
35	19 - 10	355 / 675	0.35	Kimberly L. Billings
34	19 - 11	355 / 675	0.23	Kimberly L. Billings
33	19 - 12	255 / 334	0.35	Beverly J. Welch
32	19 - 13	255 / 334	0.80	Beverly J. Welch
31	19 - 25.1	303 / 105	1.288	Gary G. Jr. & Debbie A. Phillips
30	19 - 13.1	355 / 782	0.03	Gloria L. Lowther
29	19 - 14	355 / 782	0.39	Gloria L. Lowther
28	19 - 15	355 / 782	0.39	Gloria L. Lowther
27	19 - 16	329 / 47	0.79	Donald R. Thompson
26	19 - 25	329 / 47	1.241	Donald R. Thompson
25	19 - 25.3	334 / 117	0.631	Keith & Barbara Frum
24	19 - 25.2	334 / 117	0.631	Keith & Barbara Frum
23	19 - 21	312 / 141	0.30	Jerry Michael & Anna Arlene Cooper
22	19 - 17	312 / 141	0.51	Jerry Michael & Anna Arlene Cooper
21	19 - 20	312 / 141	0.22	Jerry Michael & Anna Arlene Cooper
20	19 - 18	312 / 141	0.06	Jerry Michael & Anna Arlene Cooper
19	19 - 19	226 / 266	2.308	Keith V. & Barbara Frum
18	20 - 34	344 / 268	7.75	Michael P. & Deborah G. Haught
17	19 - 31	334 / 603	0.25	WV Department of Highways
16	19 - 32	147 / 426	4.41	Mary J. Smith
15	19 - 52.1	369 / 434	1.00	Hope Fellowship in Christ's Church
14	19 - 34	318 / 636	95.60	Chauncy P. & Ruth Archer
13	19 - 35	WB30 / 315	29.00	Rebecca Haught
12	19 - 52	WB43 / 425	188.36	Larry Moore, et al
11	20 - 35	181 / 376	140.00	Robert C. Sellers, et al
10	20 - 98	247 / 7	74.231	John P. L. Hennessy
9	20 - 97	314 / 699	66.84	Dennis J. & Connie S. Moore
8	26 - 3	448 / 216	63.02	Dennis James Moore, et al
7	26 - 9	404 / 352	28.021	JB Exploration I, LLC
6	26 - 2	314 / 701	63.40	Larry G. & Besty E. Moore
5	26 - 1	448 / 216	61.78	Dennis James Moore, et al
4	19 - 54	WB36 / 738	100.00	Deborah Susan Reed
3	25 - 2	333 / 188	75.00	Angela K. & James A. Long Jr.
2	26 - 11	321 / 842	40.00	Kirk L. Hadley
1	26 - 12	213 / 74	162.00	Kirk L. Hadley

No.	TM - Par.	Bk / Pg	Acres	Owner(s)
72	2 - 15.1	333 / 188	23.70	Angela K. & James A. Long Jr.
71	2 - 5	392 / 712	69.50	Robert L. & Nancy C. Donaghy, et al
70	2 - 5.1	204 / 309	54.24	Donald R. & Shirley D. Fletcher
69	2 - 15	333 / 188	100.00	Angela K. & James A. Long Jr.
68	3 - 1.2	309 / 598	41.25	William Kent & Deborah Lee Snyder
67	15 - 13	174 / 412	140.00	B.F., Ben H., & Ida M. Kile
66	15 - 16.1	339 / 706	1.00	Richard G. Thomas
65	15 - 16	WB30 / 1	81.67	Everett Glen Thomas
64	15 - 17	191 / 12	127.39	Earl & Donna Smith
63	15 - 17.1	327 / 758	6.35	Lisa D. Beaver
62	19 - 30	WB30 / 315	5.40	Rebecca A. Haught
61	19 - 8	357 / 127	0.60	Robert G. & Pamela R. Gorby
60	13 - 3.1	350 / 388	13.919	Earnley H. & Donna J. Owens
59	13 - 3.2	342 / 509	2.433	Marshal J. & Peggy S. Dalrymple
58	13 - 4	267 / 209	1.03	Marshal J. Dalrymple
57	13 - 3	387 / 671	8.62	Robert D. & Sherry A. Ball
56	13 - 3.5	406 / 668	17.648	Lisa M. Beane
55	13 - 3.3	349 / 563	70.509	Richard J. Mathisen



FILE NO: 101-54-E-18  
 DRAWING NO: Treasury 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: April 23 20 20  
 OPERATOR'S WELL NO. Treasury Unit 2H  
 API WELL NO  
 47 - 095 - 02557  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 912' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne Paden City 2.308; 0.631; 1.288;  
 DISTRICT: Meade, Ellsworth, Lincoln COUNTY: Tyler 66.84; 61.25; 63.4;  
 SURFACE OWNER: Kirk L. Hadley ACREAGE: 162 56.98; 70.89; 64.48;  
 ROYALTY OWNER: Kirk Hadley; Richard L. Clark(3); John P.L. Hennessy; Robert Earl Pitts; ACREAGE: 140; 84.724; 0.60;

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 6,166' TVD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,947' MD

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