02/10/2023

WR-35
Rev. 8/23/13

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

API 47 - 085 - 1041 County Wetzel District Union
Quad TH:Pullman BH: Oxford Pad Name Weekly West Field/Pool Name -----
Farm name David W & David Martin Weekley Well Number Earl 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 4335629m Easting 510779m
Landing Point of Curve Northing 4335749.18m Easting 510838.12m
Bottom Hole Northing 4331888m Easting 512172m

Elevation (ft) 1125' 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 11/10/2021 Date drilling commenced 1/8/2022 Date drilling ceased 2/28/2022
Date completion activities began 4/28/2022 Date completion activities ceased 6/13/2022
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 401', 478' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1511', 1926' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 1495', 742' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:

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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"	80'	New	78#, X60	N/A	Y
Surface	17-1/2"	13-3/8"	555'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2599'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	20491'	New	23#, P-100	N/A	Y
Tubing		2-3/8"	7775'		4.7#, P-110		
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	209 sx	15.6	1.18	44	0'	8 Hrs.
Surface	Class A	681 sx	15.8	1.16	142	0'	8 Hrs.
Coal							
Intermediate 1	Class A	920 sx	15.8	1.16	189	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	792 sx (Lead) 3596 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.4 (Lead), 1.18 (Tail)	756	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 20536' MD, 6534' TVD (BHL), 6565' (Deepest Point Drilled) Loggers TD (ft) 20536' MD

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

Plug back procedure N/A

Kick off depth (ft) 5826'

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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API 47- 085 - 1041 Farm name David W & David Martin Weekley Well number Earl Unit 1H

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	6513' (TOP) TVD	6865' (TOP) MD

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 11295 mcfpd Oil 386 bpd NGL --- bpd Water 479 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_2S, ETC)
***PLEASE SEE ATTACHED EXHIBIT 3**					

Please insert additional pages as applicable.

Drilling Contractor H & P Drilling
Address 912 N Eagle Valley Rd City Howard State PA Zip 16841

Logging Company Nine Energy Services
Address 6500 West Fwy City Fort Worth State TX Zip 76116

Cementing Company Halliburton Energy Services
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Stimulating Company Halliburton
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114
Please insert additional pages as applicable.

Completed by Brandi Hankins Telephone 304-842-9759
Signature [signature] Title Completions Technician Date 2/2/23

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

02/10/2023

API 47-085-10414 **Farm Name** David W & David Martin Weekley **Well Number** Earl Unit 1H

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	04/28/2022	20417	20371	36	Marcellus
2	04/28/2022	20333.53731	20168.2239	36	Marcellus
3	04/29/2022	20132.76119	19967.4478	36	Marcellus
4	04/29/2022	19931.98507	19766.6716	36	Marcellus
5	04/29/2022	19731.20896	19565.8955	36	Marcellus
6	04/30/2022	19530.43284	19365.1194	36	Marcellus
7	04/30/2022	19329.65672	19164.3433	36	Marcellus
8	04/30/2022	19128.8806	18963.5672	36	Marcellus
9	05/01/2022	18928.10448	18762.791	36	Marcellus
10	05/01/2022	18727.32836	18562.0149	36	Marcellus
11	05/01/2022	18526.55224	18361.2388	36	Marcellus
12	05/02/2022	18325.77612	18160.4627	36	Marcellus
13	05/02/2022	18125	17959.6866	36	Marcellus
14	05/02/2022	17924.22388	17758.9104	36	Marcellus
15	05/03/2022	17723.44776	17558.1343	36	Marcellus
16	05/03/2022	17522.67164	17357.3582	36	Marcellus
17	05/03/2022	17321.89552	17156.5821	36	Marcellus
18	05/04/2022	17121.1194	16955.806	36	Marcellus
19	05/04/2022	16920.34328	16755.0299	36	Marcellus
20	05/04/2022	16719.56716	16554.2537	36	Marcellus
21	05/04/2022	16518.79104	16353.4776	36	Marcellus
22	05/05/2022	16318.01493	16152.7015	36	Marcellus
23	05/05/2022	16117.23881	15951.9254	36	Marcellus
24	05/06/2022	15916.46269	15751.1493	36	Marcellus
25	05/06/2022	15715.68657	15550.3731	36	Marcellus
26	05/06/2022	15514.91045	15349.597	36	Marcellus
27	05/07/2022	15314.13433	15148.8209	36	Marcellus
28	05/07/2022	15113.35821	14948.0448	36	Marcellus
29	05/07/2022	14912.58209	14747.2687	36	Marcellus
30	05/07/2022	14711.80597	14546.4925	36	Marcellus
31	05/08/2022	14511.02985	14345.7164	36	Marcellus
32	05/08/2022	14310.25373	14144.9403	36	Marcellus
33	05/08/2022	14109.47761	13944.1642	36	Marcellus
34	05/08/2022	13908.70149	13743.3881	36	Marcellus
35	05/09/2022	13707.92537	13542.6119	36	Marcellus
36	05/09/2022	13507.14925	13341.8358	36	Marcellus
37	05/09/2022	13306.37313	13141.0597	36	Marcellus
38	05/10/2022	13105.59701	12940.2836	36	Marcellus
39	05/10/2022	12904.8209	12739.5075	36	Marcellus
40	05/10/2022	12704.04478	12538.7313	36	Marcellus
41	05/11/2022	12503.26866	12337.9552	36	Marcellus
42	05/11/2022	12302.49254	12137.1791	36	Marcellus
43	05/11/2022	12101.71642	11936.403	36	Marcellus
44	05/11/2022	11900.9403	11735.6269	36	Marcellus
45	05/12/2022	11700.16418	11534.8507	36	Marcellus
46	05/12/2022	11499.38806	11334.0746	36	Marcellus
47	05/12/2022	11298.61194	11133.2985	36	Marcellus
48	05/12/2022	11097.83582	10932.5224	36	Marcellus
49	05/13/2022	10897.0597	10731.7463	36	Marcellus
50	05/13/2022	10696.28358	10530.9701	36	Marcellus
51	05/13/2022	10495.50746	10330.194	36	Marcellus
52	05/14/2022	10294.73134	10129.4179	36	Marcellus
53	05/14/2022	10093.95522	9928.64179	36	Marcellus
54	05/14/2022	9893.179104	9727.86567	36	Marcellus
55	05/14/2022	9692.402985	9527.08955	36	Marcellus
56	05/15/2022	9491.626866	9326.31343	36	Marcellus
57	05/15/2022	9290.850746	9125.53731	36	Marcellus
58	05/15/2022	9090.074627	8924.76119	36	Marcellus
59	05/15/2022	8889.298507	8723.98507	36	Marcellus
60	05/16/2022	8688.522388	8523.20896	36	Marcellus
61	05/16/2022	8487.746269	8322.43284	36	Marcellus
62	05/16/2022	8286.970149	8121.65672	36	Marcellus
63	05/17/2022	8086.19403	7920.8806	36	Marcellus
64	05/18/2022	7885.41791	7720.10448	36	Marcellus
65	05/18/2022	7684.641791	7519.32836	36	Marcellus
66	05/18/2022	7483.865672	7318.55224	36	Marcellus
67	05/18/2022	7283.089552	7117.77612	36	Marcellus
68	05/19/2022	7082.313433	6917	36	Marcellus

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API 47-085-10414 Farm Name David W & David Martin Weekley Well Number Earl 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	04/28/2022	61.67	7778	9477	3635	170843	214675	N/A
2	04/28/2022	80.46	8210	7681	3960	391724	310701	N/A
3	04/29/2022	82.36	8221	6176	2998	409020	335715	N/A
4	04/29/2022	82.06	8092	3799	3090	402540	318674	N/A
5	04/29/2022	84.3	8288	5708	3215	405680	326945	N/A
6	04/30/2022	87.28	8185	5564	3358	401120	328185	N/A
7	04/30/2022	85.37	8395	8665	2857	404940	314716	N/A
8	04/30/2022	85.58	8371	6130	3214	400880	322365	N/A
9	05/01/2022	86.75	8476	6909	3057	402240	304445	N/A
10	05/01/2022	85.12	8472	6410	2867	403030	331693	N/A
11	05/01/2022	88.13	8491	6357	3629.17	402600	303272	N/A
12	05/02/2022	86.91	8503	7731	3253.88	402960	303483	N/A
13	05/02/2022	84.6	8437	7727	3204	406940	320413	N/A
14	05/02/2022	84.14	8518	7145	3084	408900	312758	N/A
15	05/03/2022	88.75	8445	7388	3302.59	401960	309289	N/A
16	05/03/2022	91.38	8368	8009	3073	406500	300584	N/A
17	05/03/2022	87.63	8428	7964	3037	404960	294054	N/A
18	05/04/2022	78.25	8422	7134	3392.05	403280	324472	N/A
19	05/04/2022	88.31	8553	7038	2756	401520	296545	N/A
20	05/04/2022	91.55	8542	4023	2727	411620	310567	N/A
21	05/04/2022	93.17	8063	5214	3506.12	409000	299084	N/A
22	05/05/2022	87.52	8385	6800	3004.07	409220	292695	N/A
23	05/05/2022	89.13	8361	6152	3164.97	402540	291809	N/A
24	05/06/2022	86.64	8380	6350	3082.15	415140	286638	N/A
25	05/06/2022	84.36	8343	7913	2907	407120	309862	N/A
26	05/06/2022	80.19	8636	8575	3147.6	407240	295722	N/A
27	05/07/2022	89.65	8467	7366	3274.77	409300	295569	N/A
28	05/07/2022	93.04	8547	8131	2876	403140	298888	N/A
29	05/07/2022	92.81	8401	7995	2981.44	408140	292918	N/A
30	05/07/2022	90.71	8382	7618	3085.25	408420	288932	N/A
31	05/08/2022	89.96	8176	7746	2788.98	408740	288179	N/A
32	05/08/2022	96.09	8364	7866	2888	401160	294334	N/A
33	05/08/2022	95.34	8445	7865	2981	405760	296548	N/A
34	05/08/2022	93.47	8212	7002	2668.57	405700	288275	N/A
35	05/09/2022	95.32	8330	7821	2873	414305	295981	N/A
36	05/09/2022	94.51	8228	7963	2859	405280	294380	N/A
37	05/09/2022	93.41	8365	7267	2720.13	410000	295289	N/A
38	05/10/2022	94.2	7864	5036	3052.01	400660	296998	N/A
39	05/10/2022	96.3	8361	7961	2787	407980	292031	N/A
40	05/10/2022	97.44	7919	8005	2882	404260	296905	N/A
41	05/11/2022	97.77	7887	6411	2907	403840	302171	N/A
42	05/11/2022	97.41	7990	8029	2798	411680	295534	N/A
43	05/11/2022	98.19	7926	7964	2802	409200	295930	N/A
44	05/11/2022	98.98	8011	7468	2723	407320	282923	N/A
45	05/12/2022	99.56	7632	6986	2996	404940	284536	N/A
46	05/12/2022	98.41	7833	7872	2714	403900	289507	N/A
47	05/12/2022	97.99	7530	5596	2915	402140	289980	N/A
48	05/12/2022	98	7341	6480	3086	406960	316362	N/A
49	05/13/2022	98.43	7756	6356	3061	404180	298619	N/A
50	05/13/2022	98.32	7669	8011	2960	408780	307177	N/A
51	05/13/2022	97.16	7309	7369	3012	407940	279323	N/A
52	05/14/2022	98.83	7317	6487	2888	405960	278659	N/A
53	05/14/2022	98.26	7261	7625	2973	408020	281643	N/A
54	05/14/2022	98.08	7580	7919	2783	406680	289130	N/A
55	05/14/2022	98.89	7177	7316	3084	404460	297689	N/A
56	05/15/2022	99.02	7421	6784	3318	411720	292476	N/A
57	05/15/2022	98.36	7469	7762	2970	408880	294166	N/A
58	05/15/2022	98.46	7199	7686	3204	406220	291432	N/A
59	05/15/2022	97.45	7225	6804	2865	405960	292665	N/A
60	05/16/2022	97.97	7345	6614	3012	407960	290687	N/A
61	05/16/2022	97.69	7160	7636	3216	406380	271043	N/A
62	05/16/2022	97.82	7214	7515	3137	402740	266886	N/A
63	05/17/2022	97.42	7091	6976	3101	409040	272126	N/A
64	05/18/2022	97.85	7172	6459	3070	412440	254384	N/A
65	05/18/2022	96.88	6883	6360	3735.48	406500	266620	N/A
66	05/18/2022	99.46	7360	7031	2975	405400	283415	N/A
67	05/18/2022	98.65	6803	6120	3043	407240	262526	N/A
68	05/19/2022	97.31	6935	6978	3435.67	408180	275051	N/A
	AVG=	**92**	**7,955**	**7,093**	**3,059**	**27,381,022**	**20,077,248**	TOTAL

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API 47-085-10414 **Farm Name** Barbara Kay Turner **Well Number** Earl Unit 1H

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Sandy Siltstone, tr LS	100	280	100	280
Sandy Siltstone, occ LS	280	430	280	430
Shaly Siltstone, tr SS	430	490	430	490
Shaly Siltstone, Coal	490	520	490	520
Shaly Siltstone, occ SS, tr Coal	520	610	520	610
Shaly Siltstone	610	730	610	730
Silty Shale, tr ls, coal	730	820	730	820
Sandy Shale, tr coal	820	970	820	970
Shaly Sandstone, tr coal	970	1,300	970	1,300
Sandy Shale, occ Siltstone	1,300	1,540	1,300	1,540
Silty Shale, occ sandstone	1,540	1,930	1,540	1,930
Shale, occ sandstone	1,930	2,050	1,930	2,050
Sandy Siltstone, occ shale	2,050	1,956	2,050	1,976
Big Lime	1,986	2,503	1,976	2,538
Fifty Foot Sandstone	2,503	2,700	2,508	2,741
Gordon	2,700	2,983	2,711	3,032
Fifth Sandstone	2,983	3,081	3,002	3,133
Bayard	3,081	3,803	3,103	3,873
Speechley	3,803	3,991	3,843	4,066
Balltown	3,991	4,501	4,036	4,589
Bradford	4,501	4,912	4,559	5,013
Benson	4,912	5,166	4,983	5,276
Alexander	5,166	6,378	5,246	6,569
Sycamore	6,179	6,348	6,330	6,539
Middlesex	6,348	6,458	6,539	6,718
Burkett	6,458	6,493	6,718	6,799
Tully	6,493	6,513	6,799	6,865
Marcellus	6,513	NA	6,865	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.

02/10/2023

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/28/2022
Job End Date:	5/19/2022
State:	West Virginia
County:	Ritchie
API Number:	47-085-10414-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	EARL UNIT 1H
Latitude:	39.16974000
Longitude:	-80.87539000
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,564
Total Base Water Volume (gal):	21,443,253
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 Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.76647	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.17449	

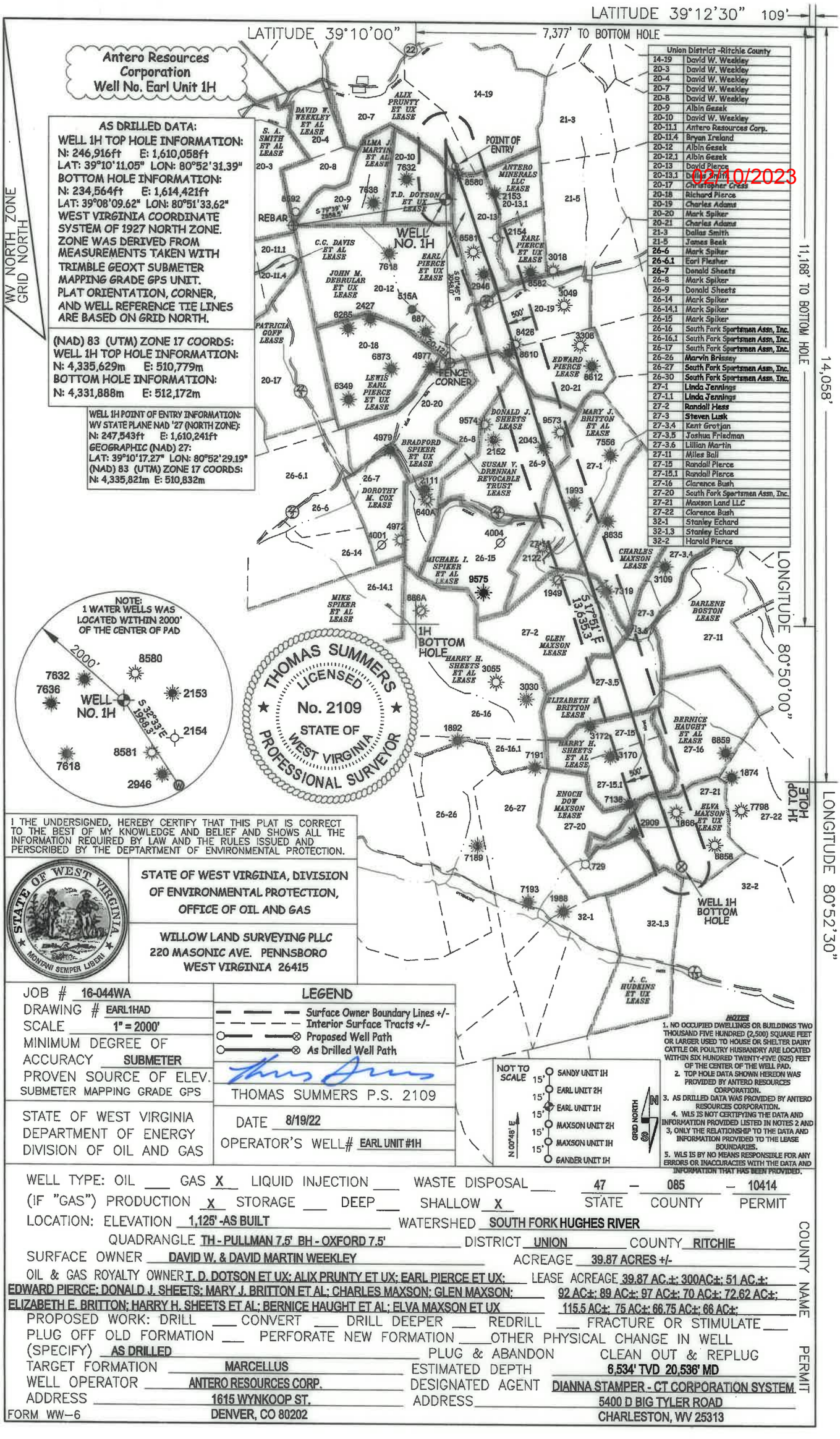
MC B-8614A	MultiChem	Biocide					
				Listed Below			
Sand-Premium White-30/70	Halliburton	Proppant					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
Sand-Premium White-30/50	Halliburton	Proppant					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
EXCELERATE LX-16	Halliburton	Friction Reducer					
				Listed Below			
LEGEND(TM) LD-7750W	MultiChem	Scale Control					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					

				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
FDP-S1443-21	Halliburton	Corrosion Inhibitor					
				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	13.03445	
			Hydrochloric acid	7647-01-0	30.00000	0.03829	
			Complex Amine Compound	Proprietary	60.00000	0.02931	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01465	
			Methanol	67-56-1	100.00000	0.00708	
			Guar gum	9000-30-0	100.00000	0.00463	
			Sodium chloride	7647-14-5	10.00000	0.00421	
			Glutaraldehyde	111-30-8	30.00000	0.00243	
			Ethoxylated alcohol	Proprietary	5.00000	0.00182	
			Amine	Proprietary	5.00000	0.00182	
			Sobitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00062	
			Surfactant	Proprietary	5.00000	0.00062	
			Phosphoric Acid Salt	Proprietary	5.00000	0.00057	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00040	
			Ammonium persulfate	7727-54-0	100.00000	0.00021	
			Ethoxylated alcohols	Proprietary	30.00000	0.00019	
			Organic chloride compound	Proprietary	1.00000	0.00012	

			Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00012	
			Ethanol	64-17-5	1.00000	0.00008	
			Oxylated phenolic resin	Proprietary	30.00000	0.00006	
			Potassium formate	590-29-4	0.10000	0.00004	
			Sodium bisulphite	7681-57-4	0.10000	0.00004	
			Diethanolamine	111-42-2	0.10000	0.00004	
			Modified thiourea polymer	Proprietary	10.00000	0.00002	
			Formaldehyde	50-00-0	0.10000	0.00001	
			Aldehyde	Proprietary	5.00000	0.00001	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	5.00000	0.00001	
			Sodium hydroxide	1310-73-2	0.01000	0.00000	
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.01000	0.00000	
			Hydroquinone monomethyl ether	150-76-5	0.01000	0.00000	
			Ethylene oxide	75-21-8	0.01000	0.00000	
			Acetaldehyde	75-07-0	0.01000	0.00000	
			Nitrotriacetic acid, trisodium salt monohydrate	5064-31-3	0.01000	0.00000	
			1,4-Dioxane	123-91-1	0.01000	0.00000	
			1-Octadecene	112-88-9	1.00000	0.00000	
			1-Hexadecene	629-73-2	1.00000	0.00000	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	
			Organic salt #1	Proprietary	0.01000	0.00000	
			Organic salt #2	Proprietary	0.01000	0.00000	
			Sodium glycolate	2836-32-0	0.01000	0.00000	
			Acrylamide	79-06-1	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	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

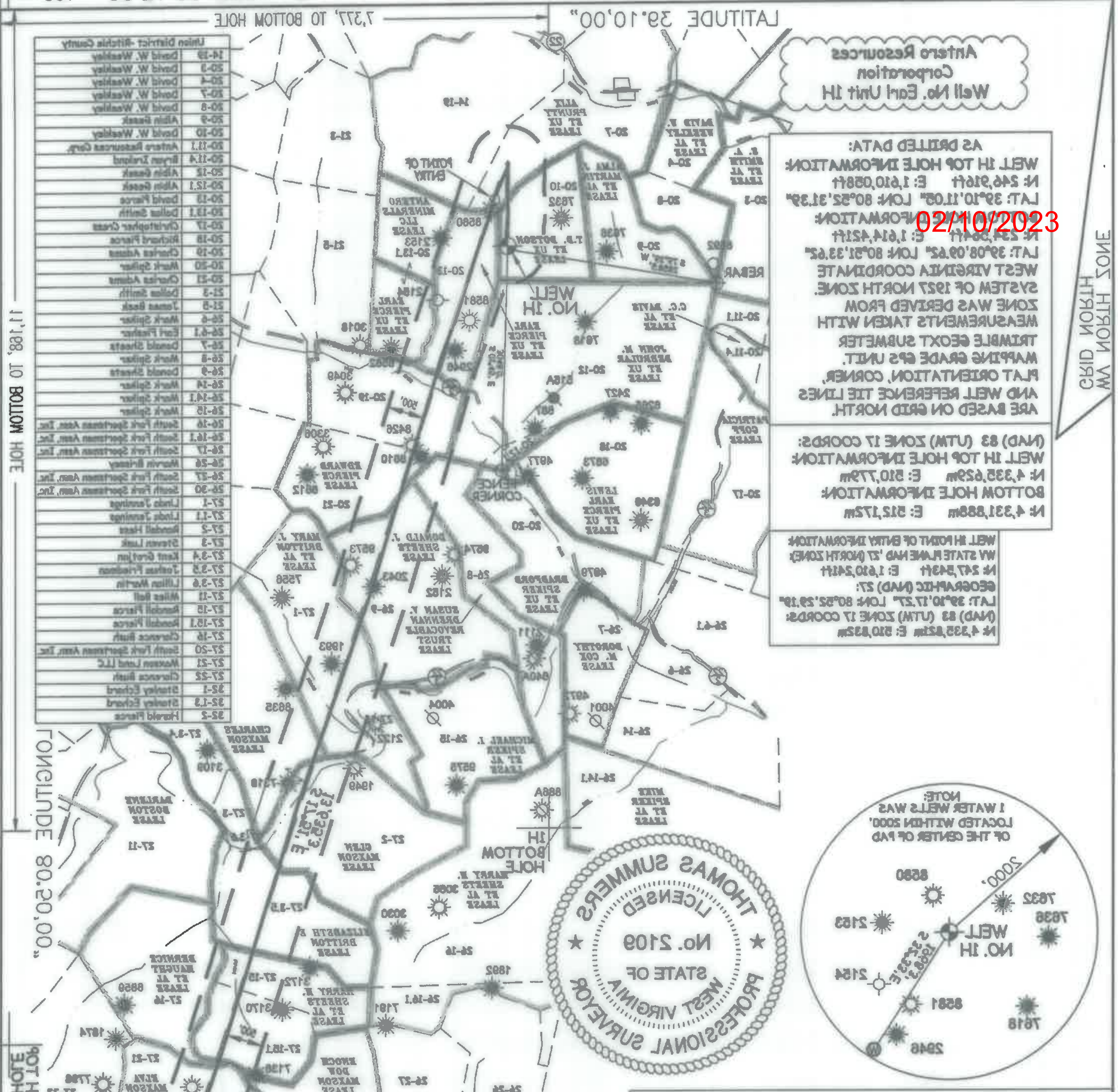
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)


LATITUDE 39°12'30"
109'
LATITUDE 39°10'00"
7,377' TO BOTTOM HOLE
11,168' TO BOTTOM HOLE
14,058'
LONGITUDE 80°50'00"
LONGITUDE 80°52'30"
WV NORTH ZONE GRID NORTH
Antero Resources Corporation Well No. Earl Unit 1H
AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 246,916ft E: 1,610,058ft
LAT: 39°10'11.05" LON: 80°52'31.39"
BOTTOM HOLE INFORMATION:
N: 234,564ft E: 1,614,421ft
LAT: 39°08'09.62" LON: 80°51'33.62"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,335,629m E: 510,779m
BOTTOM HOLE INFORMATION:
N: 4,331,888m E: 512,172m
WELL 1H POINT OF ENTRY INFORMATION:
WV STATE PLANE NAD '27 (NORTH ZONE):
N: 247,543ft E: 1,610,241ft
GEOGRAPHIC (NAD) 27:
LAT: 39°10'17.27" LON: 80°52'29.19"
(NAD) 83 (UTM) ZONE 17 COORDS:
N: 4,335,821m E: 510,832m
Union District -Ritchie County
14-19 David W. Weekley
20-3 David W. Weekley
20-4 David W. Weekley
20-7 David W. Weekley
20-8 David W. Weekley
20-9 Albin Gesek
20-10 David W. Weekley
20-11.1 Antero Resources Corp.
20-11.4 Bryan Ireland
20-12 Albin Gesek
20-12.1 Albin Gesek
20-13 David Pierce
20-13.1 Dallas Smith
20-17 Christopher Cress
20-18 Richard Pierce
20-19 Charles Adams
20-20 Mark Spiker
20-21 Charles Adams
21-3 Dallas Smith
21-5 James Beek
26-6 Mark Spiker
26-6.1 Earl Flesher
26-7 Donald Sheets
26-8 Mark Spiker
26-9 Donald Sheets
26-14 Mark Spiker
26-14.1 Mark Spiker
26-15 Mark Spiker
26-16 South Fork Sportsmen Assn, Inc.
26-16.1 South Fork Sportsmen Assn, Inc.
26-17 South Fork Sportsmen Assn, Inc.
26-26 Marvin Brissey
26-27 South Fork Sportsmen Assn, Inc.
26-30 South Fork Sportsmen Assn, Inc.
27-1 Linda Jennings
27-1.1 Linda Jennings
27-2 Randall Hess
27-3 Steven Lusk
27-3.4 Kent Grotjan
27-3.5 Joshua Friedman
27-3.6 Lillian Martin
27-11 Miles Ball
27-15 Randall Pierce
27-15.1 Randall Pierce
27-16 Clarence Bush
27-20 South Fork Sportsmen Assn, Inc.
27-21 Maxson Land LLC
27-22 Clarence Bush
32-1 Stanley Echard
32-1.3 Stanley Echard
32-2 Harold Pierce
02/10/2023
DAVID W. WEEKLEY ET AL LEASE
ALIX PRUNTY ET UX LEASE
S. A. SMITH ET AL LEASE
ALMA J. MARTIN ET AL LEASE
POINT OF ENTRY
ANTERO MINERALS LLC LEASE
T.D. DOTSON ET UX LEASE
REBAR
WELL NO. 1H
C.C. DAVIS ET AL LEASE
EARL PIERCE ET UX LEASE
JOHN M. DEBRULAR ET UX LEASE
PATRICIA GOFF LEASE
FENCE CORNER
LEWIS EARL PIERCE ET UX LEASE
EDWARD PIERCE LEASE
DONALD J. SHEETS LEASE
MARY J. BRITTON ET AL LEASE
BRADFORD SPIKER ET UX LEASE
SUSAN V. DRENNAN REVOCABLE TRUST LEASE
DOROTHY M. COX LEASE
MICHAEL I. SPIKER ET AL LEASE
MIKE SPIKER ET AL LEASE
1H BOTTOM HOLE
CHARLES MAXSON LEASE
DARLENE BOSTON LEASE
GLEN MAXSON LEASE
HARRY H. SHEETS ET AL LEASE
ELIZABETH E. BRITTON LEASE
BERNICE HAUGHT ET AL LEASE
ENOCH DOW MAXSON LEASE
ELVA MAXSON ET UX LEASE
WELL 1H BOTTOM HOLE
J. C. HUDKINS ET UX LEASE
S 17°51' E 13,635.3'
S 77°39' W 2868.5'
S 32°33' E 1968.3'
NOTE: 1 WATER WELLS WAS LOCATED WITHIN 2000' OF THE CENTER OF PAD
2000'
WELL NO. 1H
THOMAS SUMMERS LICENSED No. 2109 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR
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 PERSCRIBED BY THE DEPTARTMENT OF ENVIRONMENTAL PROTECTION.
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 +/-
Proposed Well Path
As Drilled Well Path
THOMAS SUMMERS P.S. 2109
DATE 8/19/22
OPERATOR'S WELL# EARL UNIT #1H
NOT TO SCALE
SANDY UNIT 1H
EARL UNIT 2H
EARL UNIT 1H
MAXSON UNIT 2H
MAXSON UNIT 1H
GANDER UNIT 1H
15'
N 00°48' E
GRID NORTH
NOTES
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.
JOB # 16-044WA
DRAWING # EARL1HAD
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 X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
47 – 085 – 10414
STATE COUNTY PERMIT
LOCATION: ELEVATION 1,125'-AS BUILT WATERSHED SOUTH FORK HUGHES RIVER
QUADRANGLE TH - PULLMAN 7.5' BH - OXFORD 7.5' DISTRICT UNION COUNTY RITCHIE
SURFACE OWNER DAVID W. & DAVID MARTIN WEEKLEY ACREAGE 39.87 ACRES +/-
OIL & GAS ROYALTY OWNER T. D. DOTSON ET UX; ALIX PRUNTY ET UX; EARL PIERCE ET UX; EDWARD PIERCE; DONALD J. SHEETS; MARY J. BRITTON ET AL; CHARLES MAXSON; GLEN MAXSON; ELIZABETH E. BRITTON; HARRY H. SHEETS ET AL; BERNICE HAUGHT ET AL; ELVA MAXSON ET UX LEASE ACREAGE 39.87 AC.±; 300AC±; 51 AC.±; 92 AC±; 89 AC±; 97 AC±; 70 AC±; 72.62 AC±; 115.5 AC±; 75 AC±; 66.75 AC±; 66 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 6,534' TVD 20,536' 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
FORM WW-6
COUNTY NAME PERMIT

LATITUDE 39°12'30" 109'

LATITUDE 39°10'00"

7,377' TO BOTTOM HOLE



Union District - Ritchie County	
14-19	David W. Weekley
20-3	David W. Weekley
20-4	David W. Weekley
20-7	David W. Weekley
20-8	David W. Weekley
20-9	Albin Beask
20-10	David W. Weekley
20-11.1	Antero Resources Corp.
20-11.4	Bryan Ireland
20-12	Albin Beask
20-12.1	Albin Beask
20-13	David Pierce
20-13.1	Dallas Smith
20-17	Christopher Cress
20-18	Richard Pierce
20-19	Charles Adams
20-20	Mark Spiker
20-21	Charles Adams
21-3	Dallas Smith
21-8	James Beak
26-6	Mark Spiker
26-6.1	Earl Fischer
26-7	Donald Sheets
26-8	Mark Spiker
26-9	Donald Sheets
26-13	Mark Spiker
26-14.1	Mark Spiker
26-15	Mark Spiker
26-16	South Fork Sportsman Assn, Inc.
26-16.1	South Fork Sportsman Assn, Inc.
26-17	South Fork Sportsman Assn, Inc.
26-26	Marvin Brissey
26-27	South Fork Sportsman Assn, Inc.
26-30	South Fork Sportsman Assn, Inc.
27-1	Linda Jennings
27-1.1	Linda Jennings
27-2	Randall Hess
27-3	Steven Lusk
27-3.4	Kent Groljan
27-3.5	Joshua Friedman
27-3.6	Lillian Martin
27-13	Miles Hall
27-15	Randall Pierce
27-15.1	Randall Pierce
27-16	Clarence Bush
27-20	South Fork Sportsman Assn, Inc.
27-21	Maxson Land LLC
27-22	Clarence Bush
32-1	Stanley Eckard
32-1.3	Stanley Eckard
32-2	Harold Pierce

02/10/2023

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 246,916ft E: 1,610,058ft
LAT: 39°10'11.05" LON: 80°52'31.39"
BOTTOM HOLE INFORMATION:
N: 234,564ft E: 1,614,421ft
LAT: 39°08'09.62" LON: 80°51'33.62"
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(NAD 83) (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,335,629m E: 510,779m
BOTTOM HOLE INFORMATION:
N: 4,331,888m E: 512,172m

WELL 1H POINT OF ENTRY INFORMATION:
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N: 247,543ft E: 1,610,241ft
GEOGRAPHIC (NAD) 27:
LAT: 39°10'17.27" LON: 80°52'29.19"
(NAD) 83 (UTM) ZONE 17 COORDS:
N: 4,335,821m E: 510,832m

NOTE:
1 WATER WELLS WAS LOCATED WITHIN 2000' OF THE CENTER OF PAD

THOMAS SUMMERS LICENSED No. 2109 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

NOTES:
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3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
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NOT TO SCALE
SANDY UNIT 1H
EARL UNIT 2H
EARL UNIT 1H
MAXSON UNIT 2H
MAXSON UNIT 1H
GANDER UNIT 1H

LEGEND
Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Proposed Well Path
As Drilled Well Path

JOB #	16-044WA
DRAWING #	EARL1HAD
SCALE	1" = 2000'
MINIMUM DEGREE OF ACCURACY	SUBMETER
PROVEN SOURCE OF ELEV.	SUBMETER MAPPING GRADE GPS
THOMAS SUMMERS P.S. 2109	
DATE	8/19/22
OPERATOR'S WELL #	EARL UNIT 1H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___

(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

47 - 085 - 10414
STATE COUNTY PERMIT

LOCATION: ELEVATION 1,125' - AS BUILT WATERSHED SOUTH FORK HUGHES RIVER

QUADRANGLE TH - PULLMAN 7.5' BH - OXFORD 7.5' DISTRICT UNION COUNTY RITCHIE

SURFACE OWNER DAVID W. & DAVID MARTIN WEEKLEY ACREAGE 39.87 ACRES +/-

OIL & GAS ROYALTY OWNER T.D. DOTSON ET UX: ALX PRUNTY ET UX: EARL PIERCE ET UX: LEASE ACREAGE 39.87 AC.±; 300AC.±; 51 AC.±;
EDWARD PIERCE; DONALD J. SHEETS; MARY J. BRITTON ET AL; CHARLES MAXSON; GLEN MAXSON: 92 AC±; 89 AC±; 97 AC±; 70 AC±; 72.52 AC±;
ELIZABETH E. BRITTON; HARRY H. SHEETS ET AL; BERNICE HAUGHT ET AL; ELVA MAXSON ET UX: 115.5 AC±; 75 AC±; 66.75 AC±; 66 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 6,534' TVD 20,536' MD

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

COUNTY NAME PERMIT

FORM WW-6