

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

API 47 - 103 - 03494 County Wetzel District Green
Quad Pine Grove Pad Name Furbee Field/Pool Name -----
Farm name James A. Sell Well Number Lenny 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 4378643.049m Easting 523090.214m
Landing Point of Curve Northing 4378448.85m Easting 522875.32m
Bottom Hole Northing 4374172.156m Easting 524374.720m

Elevation (ft) 1212' 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

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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 4/28/2022 Date drilling commenced 8/15/2022 Date drilling ceased 10/3/2022
Date completion activities began 12/8/2022 Date completion activities ceased 2/26/2023
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 575' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 2284' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 973' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No



Reviewed by: [Signature]
12/08/2023

API 47-103 - 03494 Farm name James A. Sell Well number Lenny 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	28"	20"	130'	New	78.67#, X-60	N/A	Y
Surface	17-1/2"	13-3/8"	693'	New	54.5#, K-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3477'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	22572'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7137'		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	247	0'	8 Hrs.
Surface	Class A	775 sx	15.8	1.17	907	0'	8 Hrs.
Coal							
Intermediate 1	Class C	1205 sx	15.8	1.16	1398	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	3655 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.25 (Tail)	4569	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 22572' MD, 7106' TVD (BHL), 7106' (Deepest Point Drilled) Loggers TD (ft) 22572' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6215'

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								

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Please insert additional pages as applicable.

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API 47- 103 - 03494 Farm name James A. Sell Well number Lenny Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6964' (TOP)</u>	<u>TVD</u>	<u>7346' (TOP)</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 842.71 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 16534 mcfpd Oil 457 bpd NGL --- bpd Water 815 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	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.

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

MAY 10 2023

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

WV Department of
Environmental Protection
Zip 26009

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 Carly Marvel Telephone 303-357-7373
Signature Carly Marvel Title Permitting Agent Date 5/2/2023

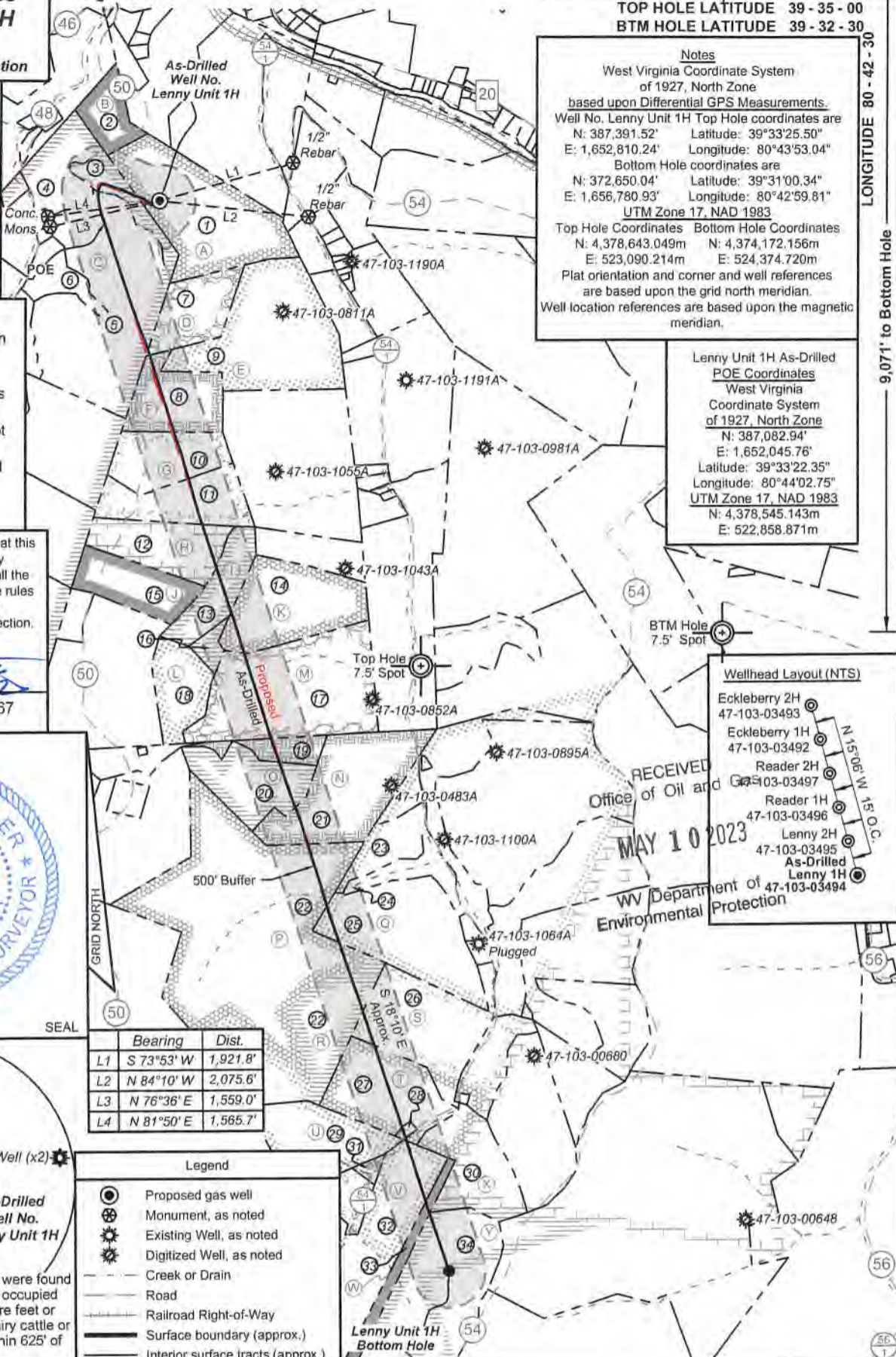
Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

12/08/2023

Antero Resources
Well No. Lenny 1H
As-Drilled
 Antero Resources Corporation

Page 1 of 2

2,336' to Bottom Hole
 TOP HOLE LATITUDE 39 - 35 - 00
 BTM HOLE LATITUDE 39 - 32 - 30



Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Lenny Unit 1H Top Hole coordinates are
 N: 387,391.52' Latitude: 39°33'25.50"
 E: 1,652,810.24' Longitude: 80°43'53.04"
 Bottom Hole coordinates are
 N: 372,650.04' Latitude: 39°31'00.34"
 E: 1,656,780.93' Longitude: 80°42'59.81"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,378,643.049m N: 4,374,172.156m
 E: 523,090.214m E: 524,374.720m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Lenny Unit 1H As-Drilled POE Coordinates
 West Virginia Coordinate System of 1927, North Zone
 N: 387,082.94'
 E: 1,652,045.76'
 Latitude: 39°33'22.35"
 Longitude: 80°44'02.75"
 UTM Zone 17, NAD 1983
 N: 4,378,545.143m
 E: 522,858.871m

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.

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



Wellhead Layout (NTS)
 Eckleberry 2H 47-103-03493
 Eckleberry 1H 47-103-03492
 Reader 2H 47-103-03497
 Reader 1H 47-103-03496
 Lenny 2H 47-103-03495
 As-Drilled Lenny 1H 47-103-03494

	Bearing	Dist.
L1	S 73°53' W	1,921.8'
L2	N 84°10' W	2,075.6'
L3	N 76°36' E	1,559.0'
L4	N 81°50' E	1,565.7'

- Legend**
- Proposed gas well
 - Monument, as noted
 - Existing Well, as noted
 - Digitized Well, as noted
 - Creek or Drain
 - Road
 - Railroad Right-of-Way
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)



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FILE NO: 125-34-G-18
 DRAWING NO: Lenny Unit 1H 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: May 5 2023
 OPERATOR'S WELL NO. Lenny Unit 1H
 API WELL NO
 47 - 103 - 03494
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1211' WATERSHED: Fishing Creek QUADRANGLE: Pine Grove 264.75;
 DISTRICT: Green James COUNTY: Wayne 263.1875;
 SURFACE OWNER: A. Sell George David Sell; Joan B. Hoge Trust; Joshua R. Edgell, et al; Morris Mountaineer Oil & Gas, LLC; Antero Minerals, LLC
 ROYALTY OWNER: James Allen Sell; William R. Stalnaker; Stone Hill Mineral Holdings, LLC; Shiben Estates, Inc. (3); Barbara Barker, et vir; BRC Appalachian Minerals I, LLC (2); Waco Oil & Gas Company, Inc.; Ridgetop Capital IV, LP; Debra L. Brown; Lydia Sims; Tribune Resources Minerals, LLC; ACREAGE: 58.1 40; 72; 35.5; 89; 257; 137.9125; 23.0; 50;
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 7,106' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,572' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
 Denver, CO 80202 Bridgeport, WV 26330



ID	TM-Par	Owner	Bk/Pg	Acres
1	17-12	James Allen Sell	370/148	58.10
2	13-69.1	Donald L. Mason	410/759	14.00
3	17-1	James Allen Sell	370/148	15.35
4	17-57	Steven C. & Bertie G. Blinkman	388/243	20.60
5	17-60	Ross Bucher	411/765	79.00
6	17-59	Olivia Brisendine	470/440	12.50
7	17-54	James Allen Sell	370/148	25.50
8	17-16	James & Andrea Sell	417/40	25.75
9	17-17	James Allen Sell	370/148	70.00
10	17-24	Nola Parks	417/35	26.50
11	17-25	Nola Parks & Jonathan Sivert	417/35	25.00
12	17-33	Debra Lynn Brown	332/480	26.00
13	17-34	Debra Lynn Brown	332/480	20.00
14	17-47	George David Sell	351/473	40.00
15	17-44	Debra Lynn Brown	362/474	26.00
16	17-46	George David Sell	351/473	4.00
17	17-35	Alfred Raymond Furbee, Sr. & Olive Gay Brown	333/638	60.00
18	17-45	George D. Sell, et al	W53/228	20.20
19	17-30	Alfred Raymond Furbee, Sr. & Olive Gay Brown	333/638	11.70
20	20-4	Nola J. Parks & Gloria C. Higgins	A100/689	25.50
21	20-5	Debbie Brown, et al	A96/679	45.00
22	20-13	Dallison Lumber Inc.	440/243	208.00
23	20-14.3	Albert E. & Betty Jean Clutter	379/182	14.35
24	20-14.10	Bobbi Jean Bassett	432/506	11.54
25	20-14.9	Randy D. & Dori R. Ice	404/39	53.33
26	20-14.5	Marsha C. Hamrick, et al	363/279	44.46
27	20-17	Christopher N. Kise	420/812	34.30
28	20-27	David Edward Arthurs, et al	347/49	0.75
29	20-25	Unkown	---/---	42.00
30	20-28	Coastal Forest Resources Co.	444/105	36.00
31	20-36	Louisa Bassett	165/304	1.50
32	20-33	David Edward Arthurs, et al	347/49	26.50
33	20-34	Columbia Gas Transmission Corporation	263/164	12.00
34	20-35	Louisa Bassett & Irvin Bassett	168/157	62.00

Leases	
A	James Allen Sell
B	George Neason Myers, et ux
C	William R. Stalnaker
D	Shiben Estates, Inc.
E	Shiben Estates, Inc.
F	Stone Hill Mineral Holdings, LLC
G	Ridgetop Capital IV, LP
H	Debra L. Brown
I	Lydia Sims
J	Debra L. Brown
K	George David Sell
L	Kevin S. Goff, et ux
M	Shiben Estates, Inc.
N	BRC Appalachian Minerals I, LLC
O	Barbara Barker, et vir
P	Waco Oil & Gas Company Inc.
Q	Tribune Resources Minerals, LLC
R	Joan B. Hoge Trust
S	Joshua R. Edgell, et al
T	Morris Mountaineer Oil & Gas LLC
U	BRC Appalachian Minerals I, LLC
V	Shiben Estates, Inc.
W	Antero Minerals, LLC
X	Josephine Brast, et al
Y	Shiben Estates, Inc.

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 DISTRICT: Green James George David Sell; COUNTY: Wayne 50.1; 25.5; 527.11875;
 SURFACE OWNER: A. Sell Barbara Barker, et vir; BRC Appalachian Minerals I, LLC (2); Waco Oil & Gas Company, Inc.; ACREAGE: 58.1 40; 72; 35.5; 89; 257;
 ROYALTY OWNER: James Allen Sell; William R. Stalnaker; Stone Hill Mineral Holdings, LLC; Shiben Estates, Inc. (3); LEASE NO: ACREAGE: 68.9563; 50; 13.25
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 7,106' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,572' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
 Denver, CO 80202 Bridgeport, WV 26330

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	12/8/2022	22443.6	22400.3	60	Marcellus
2	12/9/2022	22361.2732	22194.1392	60	Marcellus
3	12/9/2022	22158.31239	21991.1784	60	Marcellus
4	12/9/2022	21955.35158	21788.2176	60	Marcellus
5	12/9/2022	21752.39077	21585.2568	60	Marcellus
6	12/10/2022	21549.42995	21382.2959	60	Marcellus
7	12/10/2022	21346.46914	21179.3351	60	Marcellus
8	12/10/2022	21143.50833	20976.3743	60	Marcellus
9	12/11/2022	20940.54752	20773.4135	60	Marcellus
10	12/11/2022	20737.58671	20570.4527	60	Marcellus
11	12/11/2022	20534.6259	20367.4919	60	Marcellus
12	12/11/2022	20331.66509	20164.5311	60	Marcellus
13	12/12/2022	20128.70428	19961.5703	60	Marcellus
14	12/12/2022	19925.74347	19758.6095	60	Marcellus
15	12/12/2022	19722.78266	19555.6486	60	Marcellus
16	12/12/2022	19519.82185	19352.6878	60	Marcellus
17	12/13/2022	19316.86104	19149.727	60	Marcellus
18	12/13/2022	19113.90023	18946.7662	60	Marcellus
19	12/14/2022	18910.93941	18743.8054	60	Marcellus
20	12/14/2022	18707.9786	18540.8446	60	Marcellus
21	12/14/2022	18505.01779	18337.8838	60	Marcellus
22	12/14/2022	18302.05698	18134.923	60	Marcellus
23	12/15/2022	18099.09617	17931.9622	60	Marcellus
24	12/15/2022	17896.13536	17729.0014	60	Marcellus
25	12/15/2022	17693.17455	17526.0405	60	Marcellus
26	12/15/2022	17490.21374	17323.0797	60	Marcellus
27	12/16/2022	17287.25293	17120.1189	60	Marcellus
28	12/16/2022	17084.29212	16917.1581	60	Marcellus
29	12/16/2022	16881.33131	16714.1973	60	Marcellus
30	12/16/2022	16678.3705	16511.2365	60	Marcellus
31	12/17/2022	16475.40968	16308.2757	60	Marcellus
32	12/17/2022	16272.44887	16105.3149	60	Marcellus
33	12/17/2022	16069.48806	15902.3541	60	Marcellus
34	12/17/2022	15866.52725	15699.3932	60	Marcellus
35	12/17/2022	15663.56644	15496.4324	60	Marcellus
36	12/18/2022	15460.60563	15293.4716	60	Marcellus
37	12/18/2022	15257.64482	15090.5108	60	Marcellus
38	12/18/2022	15054.68401	14887.55	60	Marcellus
39	12/18/2022	14851.7232	14684.5892	60	Marcellus
40	12/18/2022	14648.76239	14481.6284	60	Marcellus
41	12/19/2022	14445.80158	14278.6676	60	Marcellus
42	12/19/2022	14242.84077	14075.7068	60	Marcellus
43	12/20/2022	14039.87995	13872.7459	60	Marcellus
44	12/20/2022	13836.91914	13669.7851	60	Marcellus
45	12/20/2022	13633.95833	13466.8243	60	Marcellus
46	12/20/2022	13430.99752	13263.8635	60	Marcellus
47	12/21/2022	13228.03671	13060.9027	60	Marcellus
48	12/21/2022	13025.0759	12857.9419	60	Marcellus
49	12/21/2022	12822.11509	12654.9811	60	Marcellus
50	12/22/2022	12619.15428	12452.0203	60	Marcellus
51	12/22/2022	12416.19347	12249.0595	60	Marcellus
52	12/22/2022	12213.23266	12046.0986	60	Marcellus
53	12/22/2022	12010.27185	11843.1378	60	Marcellus
54	12/22/2022	11807.31104	11640.177	60	Marcellus
55	12/23/2022	11604.35023	11437.2162	60	Marcellus
56	12/25/2022	11401.38941	11234.2554	60	Marcellus
57	12/30/2022	11198.4286	11031.2946	60	Marcellus
58	12/30/2022	10995.46779	10828.3338	60	Marcellus
59	12/30/2022	10792.50698	10625.373	60	Marcellus
60	12/30/2022	10589.54617	10422.4122	60	Marcellus
61	12/31/2022	10386.58536	10219.4514	60	Marcellus
62	12/31/2022	10183.62455	10016.4905	60	Marcellus
63	12/31/2022	9980.663739	9813.52973	60	Marcellus
64	1/1/2023	9777.702928	9610.56892	60	Marcellus
65	1/1/2023	9574.742117	9407.60811	60	Marcellus
66	1/1/2023	9371.781306	9204.6473	60	Marcellus
67	1/1/2023	9168.820495	9001.68649	60	Marcellus
68	1/2/2023	8965.859685	8798.72568	60	Marcellus
69	1/2/2023	8762.898874	8595.76486	60	Marcellus
70	1/2/2023	8559.938063	8392.80405	60	Marcellus
71	1/2/2023	8356.977252	8189.84324	60	Marcellus
72	1/3/2023	8154.016441	7986.88243	60	Marcellus
73	1/3/2023	7951.055631	7783.92162	60	Marcellus
74	1/3/2023	7748.09482	7580.96081	60	Marcellus
75	1/3/2023	7545.134009	7378	60	Marcellus

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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 (bbbls)	Amount of Nitrogen/ other (units)
1	12/8/2022	65.5	9071	7280	3842	176110	278720	N/A
2	12/9/2022	92.0	9720	5117	5066	414360	405356	N/A
3	12/9/2022	94.3	9662	5533	4228	399003	442196	N/A
4	12/9/2022	85.0	9539	6100.27	4077.231	407665	331974	N/A
5	12/9/2022	91.7	10214	6080	4930	410759	305025	N/A
6	12/10/2022	90.8	10028	5462	5076	409223	306187	N/A
7	12/10/2022	85.1	9603	5968	4707	425604	385326	N/A
8	12/10/2022	94.0	10359	5908	4212	400012	290971	N/A
9	12/11/2022	94.4	10212	5635	5210	399655	294556	N/A
10	12/11/2022	92.2	9609	7196	4501	406631	304880	N/A
11	12/11/2022	94.4	10274	7637	4684	400175	296852	N/A
12	12/11/2022	92.0	10322	6068	5640	412499	297997	N/A
13	12/12/2022	94.1	10023	6102	5011	397919	282177	N/A
14	12/12/2022	91.4	9581	5430	4619	411895	307156	N/A
15	12/12/2022	93.1	9410	5947	4198	413064	297318	N/A
16	12/12/2022	89.8	9525	4818	5239	403365	393382	N/A
17	12/13/2022	88.5	9565	5894	4302	407326	382026	N/A
18	12/13/2022	92.6	9859	5716	4872	400048	293213	N/A
19	12/14/2022	92.3	9214	5897	5102	405633	390518	N/A
20	12/14/2022	92.2	9328	5670	4229	410266	292426	N/A
21	12/14/2022	85.6	8948	5248	4249	420769	296608	N/A
22	12/14/2022	95.5	9126	6099	5383	409131	293929	N/A
23	12/15/2022	96.2	9455	6007	4478	407442	296273	N/A
24	12/15/2022	84.7	8761	5773	4049	410693	355195	N/A
25	12/15/2022	92.0	9317	6195	3689	425871	301087	N/A
26	12/15/2022	94.6	9123	5835	4945	407094	292475	N/A
27	12/16/2022	85.3	9018	5898	4412	407620	347595	N/A
28	12/16/2022	94.1	9333	5539	3849	415182	298630	N/A
29	12/16/2022	95.2	9274	5545	4314	412740	295648	N/A
30	12/16/2022	95.4	9231	5392	4890	406939	296204	N/A
31	12/17/2022	95.9	9148	5113	5434	417203	301213	N/A
32	12/17/2022	96.8	9122	5817	5187	412371	297875	N/A
33	12/17/2022	88.3	9206	6091	5490	321265	265015	N/A
34	12/17/2022	93.9	9033	5810	4665	407654	287432	N/A
35	12/17/2022	95.6	8491	4738	5767	408198	295990	N/A
36	12/18/2022	95.4	8730	5074	4819	417829	299098	N/A
37	12/18/2022	95.9	8994	5347	4032	419119	289657	N/A
38	12/18/2022	94.8	9091	5569	4322	419684	293100	N/A
39	12/18/2022	96.2	8943	5642	4653	420781	293160	N/A
40	12/18/2022	95.9	8502	4891	5720	420653	294028	N/A
41	12/19/2022	95.0	8964	4573	4631	420149	302433	N/A
42	12/19/2022	90.8	8957	6022.04	4662.172	315142	341331	N/A
43	12/20/2022	95.6	8804	5674	5712	405966	278375	N/A
44	12/20/2022	94.0	8461	6450	4518	418953	328989	N/A
45	12/20/2022	93.2	8761	6183	4778	290977	252597	N/A
46	12/20/2022	93.0	8473	8167	4010	408304	291166	N/A
47	12/21/2022	95.2	8586	8399	4398	407772	287937	N/A
48	12/21/2022	95.0	8488	7942	4103	404218	290708	N/A
49	12/21/2022	95.9	8228	5601	4278	420860	322879	N/A
50	12/22/2022	95.6	8421	8119	3644	403125	295123	N/A
51	12/22/2022	96.0	8463	8068	4288	405752	290189	N/A
52	12/22/2022	93.9	8504	5749	4367	421053	289567	N/A
53	12/22/2022	95.9	8218	5127	4499	414727	287222	N/A
54	12/22/2022	95.6	8528	7849	4884	407186	284680	N/A
55	12/23/2022	96.6	8261	7938	3733	409161	288070	N/A
56	12/25/2022	81.1	8108	8723	4260	406960	449668	N/A
57	12/30/2022	93.8	8175	5457	4991	415491	370458	N/A
58	12/30/2022	95.1	8098	5596	4879	417728	287588	N/A
59	12/30/2022	89.7	7801	5243	4729	401069	355080	N/A
60	12/30/2022	90.8	7714	6710	4478	399239	277713	N/A
61	12/31/2022	94.3	7558	5849	4462	438830	349784	N/A
62	12/31/2022	94.0	8086	6344	4636	417106	411985	N/A
63	12/31/2022	92.3	7913	6330	4325	398179	375598	N/A
64	1/3/2023	93.6	7727	6084	4957	413517	353720	N/A
65	1/1/2023	94.6	7624	5090	6191	410716	283447	N/A
66	1/1/2023	95.5	7374	5315	4135	414864	291703	N/A
67	1/1/2023	95.1	7380	5522	4053	409953	279556	N/A
68	1/2/2023	96.3	7498	4967	4732	401019	274909	N/A
69	1/2/2023	93.4	7484	5155	4546	399020	320074	N/A
70	1/2/2023	94.0	7002	5161	5060	418785	285894	N/A
71	1/2/2023	94.9	7115	5998	3980	417329	282582	N/A
72	1/3/2023	95.2	7128	5663	5033	413067	270688	N/A
73	1/3/2023	90.9	7497	5411	3832	412927	328421	N/A
74	1/3/2023	94.8	7035	5105	4200	410923	281519	N/A
75	1/3/2023	94.3	7137	5824	4155	409516	277455	N/A
	AVERAGE	93	8,739	5,980	4,616	30,279,033	23,407,576	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Sandy Siltstone, LS	100	320	100	320
Shaley Siltstone, tr LS	320	370	320	370
Sandy Shale	370	620	370	620
Siltstone, Occ SS, tr Shale, tr Coal	470	820	470	820
Sandy Siltstone, tr LS, tr Shale	620	820	620	820
Silty Sandstone, tr LS	820	920	820	920
Sandy Siltstone, tr LS, tr Shale	920	1,020	920	1,020
Silty Sandstone, tr Shale	1,020	1,120	1,020	1,120
Silty Sandstone, tr Shale, tr LS	1,120	1,220	1,120	1,220
Shaley Sandstone, occ Siltstone	1,220	1,420	1,220	1,420
Silty Sandstone, tr shale	1,420	1,520	1,420	1,520
Sandy Siltstone, tr Coal	1,520	1,670	1,520	1,670
Silty Sandstone, tr Coal, tr Shale	1,670	1,870	1,670	1,870
Sandy Shale, tr Coal	1,870	2,020	1,870	2,020
Silty Sandstone, rr Coal	2,020	2,104	2,020	2,108
Big Lime	2,134	2,972	2,108	2,976
Fifty Foot Sandstone	2,972	3,014	2,946	3,018
Gordon	3,014	3,239	2,988	3,243
Fifth Sandstone	3,239	3,572	3,213	3,576
Bayard	3,572	3,975	3,546	3,982
Speechley	3,975	4,120	3,952	4,129
Balltown	4,120	4,612	4,099	4,643
Bradford	4,612	5,174	4,613	5,242
Benson	5,174	5,613	5,212	5,706
Alexander	5,613	6,785	5,676	6,967
Sycamore	6,633	6,755	6,783	6,937
Middlesex	6,755	6,854	6,937	7,084
Burkett	6,854	6,882	7,084	7,138
Tully	6,882	6,964	7,138	7,346
Marcellus	6,964	NA	7,346	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 depth.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/8/2022
Job End Date:	1/3/2023
State:	West Virginia
County:	Wetzel
API Number:	47-103-03494-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Lenny Unit 1H
Latitude:	39.55708000
Longitude:	-80.73140000
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,419
Total Base Water Volume (gal):	22,552,000
Total Base Non Water Volume:	0

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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	87.14432	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.13262	

SM

Chemstream StimSTREAM FR 9800	Chemstream, Inc.	Friction Reducer					
				Listed Below			
HYDROCHLORI C ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
SAND, COMMON BROWN 100 MESH	Halliburton	Proppant					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
MC B-8614A	MultiChem	Biocide					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
Sand-Premium White-30/70	Halliburton	Proppant					

				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	12.64375	
			Hydrochloric acid	7647-01-0	30.00000	0.03736	
			Alkanes, C16-20-iso-	Proprietary	25.00000	0.01634	
			Butene, homopolymer	9003-29-6	25.00000	0.01634	
			Guar gum	9000-30-0	100.00000	0.01332	
			Glutaraldehyde	111-30-8	30.00000	0.00243	
			Ethoxylated alcohols (C12-16)	68213-23-0	3.00000	0.00196	
			Ammonium persulfate	7727-54-0	100.00000	0.00044	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00040	
			Methanol	67-56-1	100.00000	0.00023	
			Oxylated phenolic resin	Proprietary	30.00000	0.00013	
			Ethanol	64-17-5	1.00000	0.00008	
			Modified thiourea polymer	Proprietary	30.00000	0.00007	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			Hexadecene	629-73-2	5.00000	0.00001	
			Orange pigment Orange 5	3468-63-1	1.00000	0.00000	

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* 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)

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