

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

API 47 - 103 - 03629 County Wetzel District Green  
Quad Porter Falls 7.5' Pad Name Fluharty Field/Pool Name ----  
Farm name Antero Resources Corporation Well Number Cargo 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 4380205m Easting 515953m  
Landing Point of Curve Northing 4380722m Easting 516407m  
Bottom Hole Northing 4385347m Easting 514837m

Elevation (ft) 1181' 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

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Date permit issued 1/2/2024 Date drilling commenced 1/30/2024 Date drilling ceased 5/7/2024  
Date completion activities began 6/15/2024 Date completion activities ceased 9/5/2024  
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 307' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 2289' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

Reviewed by: [Signature]  
**APPROVED** 02/28/2025

API 47- 103 - 03629 Farm name Antero Resources Corporation Well number Cargo 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"	125.5'	New	94#, J-55	N/A	Y
Surface	17-1/2"	13-3/8"	412'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	3212'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" /8-1/2"	5-1/2"	24267'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7116'		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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	250 sx	15.6	1.18	295	0'	8 Hrs.
Surface	Class A	368 sx	15.6	1.19	438	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1142 sx	15.6	1.18	1348	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	4135 sx (Tail)	13.5 (Spacer), 15.2(Tail)	1.26 (Tail)	5210	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 24267' MD, 6783' TVD (BHL), 6853' TVD (Deepest Point Drilled) Loggers TD (ft) 24237' MD  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6490'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_  
 Conductor - 0  
 Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface  
 Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface  
 Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

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

02/28/2025 

API 47- 103 - 03629 Farm name Antero Resources Corporation Well number Cargo Unit 1H

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>					

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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.

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API 47- 103 - 03629

Farm name Antero Resources Corporation Well number Cargo Unit 1H

PRODUCING FORMATION(S)

DEPTHS

Marcellus \_\_\_\_\_ 6797' (TOP) TVD 7425' (TOP) MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

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

OPEN FLOW Gas 14578.05 mcfpd Oil 738.22 bpd NGL --- bpd Water 1037.33 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

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

**\*PLEASE SEE ATTACHED EXHIBIT 3**


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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 Schlumberger  
Address 5599 San Felipe St. Fl 17 City Houston State TX Zip 77056

Stimulating Company Halliburton  
Address 3000 N Sam Houston Pkwy E. City Houston State TX Zip 77032

Please insert additional pages as applicable.

Completed by Stefan Gaspar Telephone 303-357-6959  
Signature *Stefan Gaspar* Title Permitting Agent Date 12/18/24

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry  
**02/28/2025**

## EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/15/2024	24184	24140	36	Marcellus
2	6/16/2024	24101.48594	23935.9157	36	Marcellus
3	6/17/2024	23900.40161	23734.8313	36	Marcellus
4	6/17/2024	23699.31727	23533.747	36	Marcellus
5	6/18/2024	23498.23293	23332.6627	36	Marcellus
6	6/19/2024	23297.14859	23131.5783	36	Marcellus
7	6/20/2024	23096.06426	22930.494	36	Marcellus
8	6/21/2024	22894.97992	22729.4096	36	Marcellus
9	6/21/2024	22693.89558	22528.3253	36	Marcellus
10	6/22/2024	22492.81124	22327.241	36	Marcellus
11	6/22/2024	22291.72691	22126.1566	36	Marcellus
12	6/23/2024	22090.64257	21925.0723	36	Marcellus
13	6/24/2024	21889.55823	21723.988	36	Marcellus
14	6/25/2024	21688.4739	21522.9036	36	Marcellus
15	6/26/2024	21487.38956	21321.8193	36	Marcellus
16	6/27/2024	21286.30522	21120.7349	36	Marcellus
17	6/27/2024	21085.22088	20919.6506	36	Marcellus
18	6/28/2024	20884.13655	20718.5663	36	Marcellus
19	6/29/2024	20683.05221	20517.4819	36	Marcellus
20	6/30/2024	20481.96787	20316.3976	36	Marcellus
21	7/1/2024	20280.88353	20115.3133	36	Marcellus
22	7/1/2024	20079.7992	19914.2289	36	Marcellus
23	7/2/2024	19878.71486	19713.1446	36	Marcellus
24	7/3/2024	19677.63052	19512.0602	36	Marcellus
25	7/4/2024	19476.54618	19310.9759	36	Marcellus
26	7/5/2024	19275.46185	19109.8916	36	Marcellus
27	7/5/2024	19074.37751	18908.8072	36	Marcellus
28	7/6/2024	18873.29317	18707.7229	36	Marcellus
29	7/7/2024	18672.20884	18506.6386	36	Marcellus
30	7/8/2024	18471.1245	18305.5542	36	Marcellus
31	7/8/2024	18270.04016	18104.4699	36	Marcellus
32	7/9/2024	18068.95582	17903.3855	36	Marcellus
33	7/10/2024	17867.87149	17702.3012	36	Marcellus
34	7/10/2024	17666.78715	17501.2169	36	Marcellus
35	7/11/2024	17465.70281	17300.1325	36	Marcellus
36	7/12/2024	17264.61847	17099.0482	36	Marcellus
37	7/13/2024	17063.53414	16897.9639	36	Marcellus
38	7/14/2024	16862.4498	16696.8795	36	Marcellus
39	7/14/2024	16661.36546	16495.7952	36	Marcellus
40	7/15/2024	16460.28112	16294.7108	36	Marcellus
41	7/15/2024	16259.19679	16093.6265	36	Marcellus
42	7/16/2024	16058.11245	15892.5422	36	Marcellus
43	7/16/2024	15857.02811	15691.4578	36	Marcellus
44	7/16/2024	15655.94378	15490.3735	36	Marcellus
45	7/17/2024	15454.85944	15289.2892	36	Marcellus
46	7/18/2024	15253.7751	15088.2048	36	Marcellus
47	7/19/2024	15052.69076	14887.1205	36	Marcellus
48	7/19/2024	14851.60643	14686.0361	36	Marcellus
49	7/19/2024	14650.52209	14484.9518	36	Marcellus
50	7/20/2024	14449.43775	14283.8675	36	Marcellus
51	7/20/2024	14248.35341	14082.7831	36	Marcellus
52	7/20/2024	14047.26908	13881.6988	36	Marcellus
53	7/21/2024	13846.18474	13680.6145	36	Marcellus
54	7/21/2024	13645.1004	13479.5301	36	Marcellus
55	7/21/2024	13444.01606	13278.4458	36	Marcellus
56	7/22/2024	13242.93173	13077.3614	36	Marcellus
57	7/22/2024	13041.84739	12876.2771	36	Marcellus
58	7/23/2024	12840.76305	12675.1928	36	Marcellus
59	7/23/2024	12639.67871	12474.1084	36	Marcellus
60	7/23/2024	12438.59438	12273.0241	36	Marcellus
61	7/24/2024	12237.51004	12071.9398	36	Marcellus
62	7/24/2024	12036.4257	11870.8554	36	Marcellus
63	7/24/2024	11835.34137	11669.7711	36	Marcellus
64	7/25/2024	11634.25703	11468.6867	36	Marcellus
65	7/25/2024	11433.17269	11267.6024	36	Marcellus
66	7/26/2024	11232.08835	11066.5181	36	Marcellus
67	7/26/2024	11031.00402	10865.4337	36	Marcellus
68	7/26/2024	10829.91968	10664.3494	36	Marcellus
69	7/27/2024	10628.83534	10463.2651	36	Marcellus
70	7/27/2024	10427.751	10262.1807	36	Marcellus
71	7/27/2024	10226.66667	10061.0964	36	Marcellus
72	7/28/2024	10025.58233	9860.01205	36	Marcellus
73	7/28/2024	9824.49792	9658.92771	36	Marcellus
74	7/28/2024	9623.413655	9457.84337	36	Marcellus
75	7/29/2024	9422.329317	9256.75904	36	Marcellus
76	7/29/2024	9221.24498	9055.6747	36	Marcellus
77	7/29/2024	9020.160643	8854.59036	36	Marcellus
78	7/30/2024	8819.076305	8653.50602	36	Marcellus
79	7/30/2024	8617.991968	8452.42169	36	Marcellus
80	7/30/2024	8416.907631	8251.33735	36	Marcellus
81	7/31/2024	8215.823293	8050.25301	36	Marcellus
82	7/31/2024	8014.738956	7849.16867	36	Marcellus
83	7/31/2024	7813.654618	7648.08434	36	Marcellus
84	8/1/2024	7612.570281	7447	36	Marcellus



## 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, tr Shale	104	204	104	204
Silty Shale	204	354	204	354
Shale, Occ Siltstone, rr Sandstone	354	504	354	504
Shaley Siltstone, occ Sandstone	404	604	404	604
Sandy Siltstone, occ Shale	504	604	504	604
Silty Sandstone	604	804	604	804
Sandstone, tr Siltstone	804	954	804	954
Silty Sandstone, rr Shale	954	1,154	954	1,154
Sandstone, tr Siltstone	1,154	1,354	1,154	1,354
Sandy Siltstone	1,354	1,554	1,354	1,554
Siltstone, rr Sandstone	1,554	1,654	1,554	1,654
Silty Sandstone	1,654	1,854	1,654	1,854
Sandstone, occ Shale	1,854	2,054	1,854	2,054
Sandy Siltstone, occ Shale, tr coal	2,054	2,104	2,054	2,104
Sandy Siltstone, tr Shale	2,104	2,055	2,104	2,112
Big Lime	2,081	2,837	2,112	2,947
Fifty Foot Sandstone	2,837	2,934	2,921	3,048
Gordon	2,934	3,180	3,022	3,304
Fifth Sandstone	3,180	3,406	3,278	3,540
Bayard	3,406	3,896	3,514	4,068
Speechley	3,896	4,135	4,042	4,324
Balltown	4,135	4,602	4,298	4,818
Bradford	4,602	5,109	4,792	5,353
Benson	5,109	5,498	5,327	5,771
Alexander	5,498	6,610	5,745	7,009
Sycamore	6,467	6,584	6,827	6,983
Middlesex	6,584	6,674	6,983	7,137
Burkett	6,674	6,698	7,137	7,184
Tully	6,698	6771	7184	7399
Marcellus	6,771	NA	7399	NA

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LATITUDE 39°35'00" 6,419'

LATITUDE 39°37'30" 10,045' TO BOTTOM HOLE

4,375'

2,669' TO BOTTOM HOLE

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

Antero Resources Corporation  
Well No. Cargo #1H

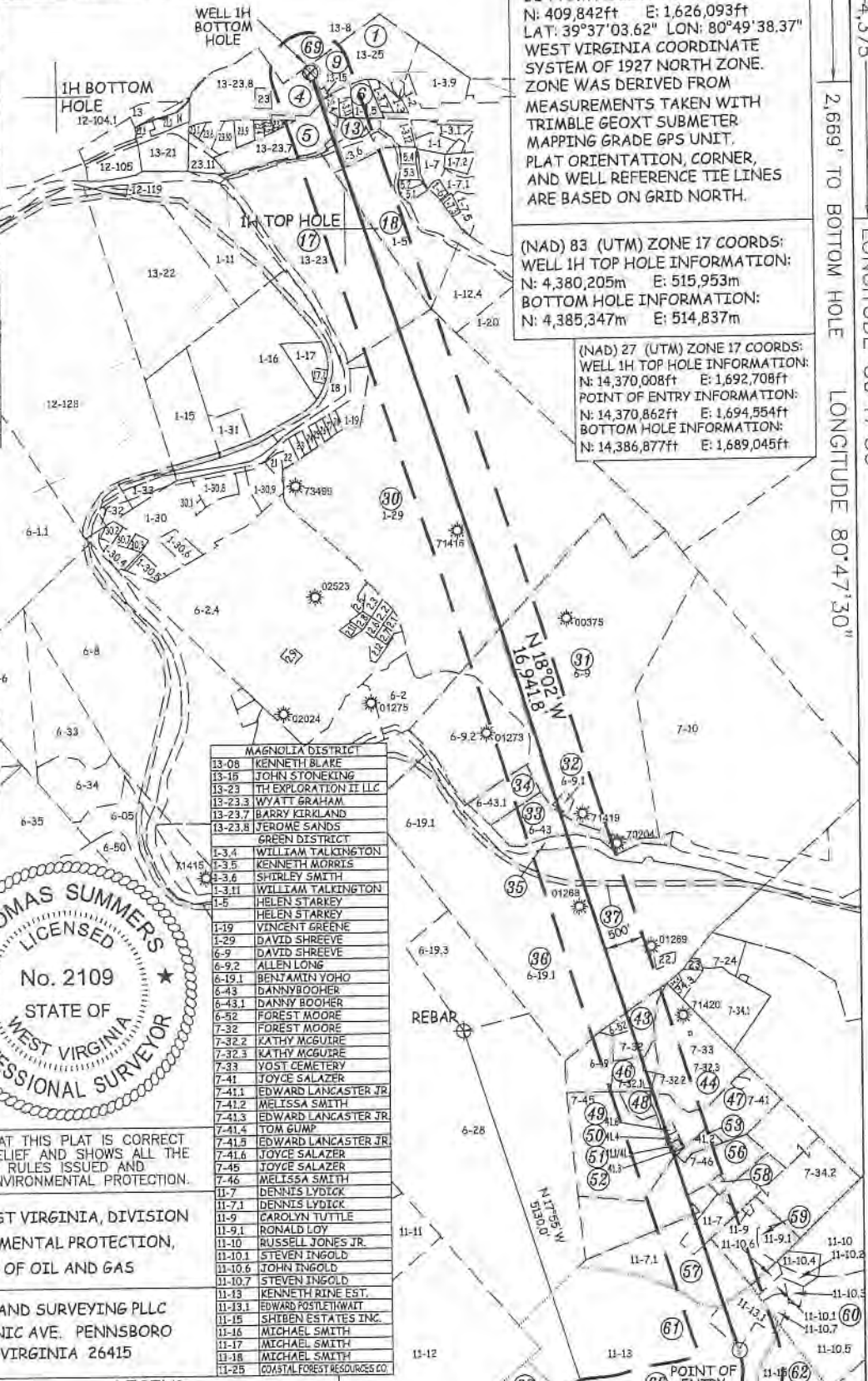
69	DAVID LEE SMITH
64	ROBERT BARRY BYRNS, SR.
65	DAVID LEE SMITH
66	MICHAEL EUGENE SMITH
67	DAVID LEE SMITH
68	COASTAL FOREST RESOURCES COMPANY

AS DRILLED DATA:  
WELL 1H TOP HOLE INFORMATION:  
N: 392,909ft E: 1,629,476ft  
LAT: 39°34'16.76" LON: 80°48'51.98"  
BOTTOM HOLE INFORMATION:  
N: 409,842ft E: 1,626,093ft  
LAT: 39°37'03.62" LON: 80°49'38.37"  
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH 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.

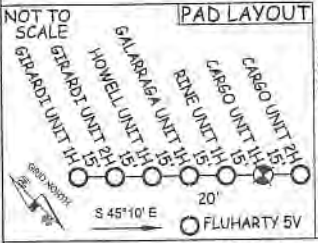
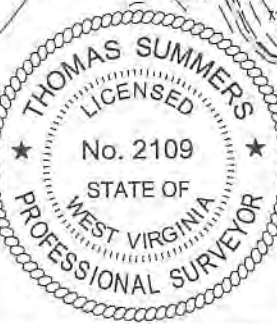
(NAD) 83 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 4,380,205m E: 515,953m  
BOTTOM HOLE INFORMATION:  
N: 4,385,347m E: 514,837m

(NAD) 27 (UTM) ZONE 17 COORDS:  
WELL 1H TOP HOLE INFORMATION:  
N: 14,370,008ft E: 1,692,708ft  
POINT OF ENTRY INFORMATION:  
N: 14,370,862ft E: 1,694,554ft  
BOTTOM HOLE INFORMATION:  
N: 14,386,877ft E: 1,689,045ft

1	RICHARD EDWARD ISNER, SR. AND SHEILA D. ISNER
69	DAVID E. HOFFER
4	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
5	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
6	SHIRLEY L. PRICE
9	SHIRLEY L. PRICE
13	SHIRLEY SMITH
17	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
19	HELEN LOUISE STARKEY
30	DAVID L. SHURVE AND ESYHER SHURVE
31	CAD. PHILLIPS AYKINSON
32	DONALD F. MORGAN, SR.
33	CHESAPEAKE APPALACHIA, LLC.
34	CHESAPEAKE APPALACHIA, LLC.
36	BY DNA
38	STONE HILL MINERALS HOLDINGS, LLC.
37	CSX TRANSPORTATION, INC.
43	PAULINA A. O'NEIL
44	JOSHUA CURRY COMP
46	RONALD V. MCCOY AND KATHY MELINA MCCOY
47	JOHN MAYHEW STALEY
48	JOHN MAYHEW STALEY
49	JOLAYNE F. WILLIAMS
60	TOMMY J. CUMP AND JEAN ANN CUMP
61	EDWARD E. LANCASTER, JR. AND SANDY LYNN LANCASTER
62	EDWARD E. LANCASTER, JR. AND SANDY LYNN LANCASTER
63	MELISSA J. LANCASTER
66	TOMMY J. CUMP AND JEAN ANN CUMP
67	TOMMY J. CUMP AND JEAN ANN CUMP
68	TOMMY J. CUMP AND JEAN ANN CUMP
69	HEIRS OF MARGARET RUDY
80	W.C. CONNINGHAM, ET AL
81	JOHN MAYHEW STALEY
82	SHIBBN ASPHYAS, INC.



MAGNOLIA DISTRICT	
13-09	KENNETH BLAKE
13-16	JOHN STONKING
13-23	TH EXPLORATION II LLC
13-23.3	WYATT GRAHAM
13-23.7	BARRY KIRKLAND
13-23.8	JEROME SANDS
GREEN DISTRICT	
1-3.4	WILLIAM TALKINGTON
1-3.5	KENNETH MORRIS
1-3.6	SHIRLEY SMITH
1-3.11	WILLIAM TALKINGTON
1-5	HELEN STARKEY
1-19	VINCENT GREENE
1-29	DAVID SHREEVE
6-9	DAVID SHREEVE
6-9.2	ALLEN LONG
6-19.1	BENJAMIN YOHO
6-43	DANNY BOOHER
6-43.1	DANNY BOOHER
6-52	FOREST MOORE
7-32	FOREST MOORE
7-32.2	KATHY MCGUIRE
7-32.3	KATHY MCGUIRE
7-33	YOST CEMETERY
7-41	JOYCE SALAZER
7-41.1	EDWARD LANCASTER JR
7-41.2	MELISSA SMITH
7-41.3	EDWARD LANCASTER JR
7-41.4	TOM GUMP
7-41.5	EDWARD LANCASTER JR
7-41.6	JOYCE SALAZER
7-46	JOYCE SALAZER
7-46	MELISSA SMITH
11-7	DENNIS LYDICK
11-7.1	DENNIS LYDICK
11-9	CAROLYN TUTTLE
11-9.1	RONALD LOY
11-10	RUSSELL JONES JR.
11-10.1	STEVEN INGOLD
11-10.6	JOHN INGOLD
11-10.7	STEVEN INGOLD
11-13	KENNETH RINE EST.
11-13.1	EDWARD POSTLETHWAIT
11-15	SHTBEN ESTATES INC.
11-16	MICHAEL SMITH
11-17	MICHAEL SMITH
11-18	MICHAEL SMITH
11-25	COASTAL FOREST RESOURCES CO



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

JOB # 21-011WA  
DRAWING # CARGO1HAD  
SCALE 1" = 2000'  
MINIMUM DEGREE OF ACCURACY SUBMETER  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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

THOMAS SUMMERS P.S. 2109

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

DATE 11/22/24  
OPERATOR'S WELL# CARGO UNIT #1H  
47 - 103 - 03629  
STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
LOCATION: ELEVATION 1,181' WATERSHED FISHING CREEK  
QUADRANGLE PORTER FALLS 7.5' DISTRICT GREEN COUNTY WETZEL  
SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 46.95 ACRES±  
OIL & GAS ROYALTY OWNER DAVID L. SMITH LEASE ACREAGE 67 ACRES±  
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 6,783' TVD 24,267' MD  
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS  
ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAK BLVD.  
DENVER, CO 80202 BRIDGEPORT, WV 26330

NOTE  
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02/28/2025



LATITUDE 39°35'00"

6,419'

LATITUDE 39°37'30"

10,045' TO BOTTOM HOLE

4,375'

2,669' TO BOTTOM HOLE

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

LONGITUDE 80°47'30"

Antero Resources Corporation Well No. Cargo #1H

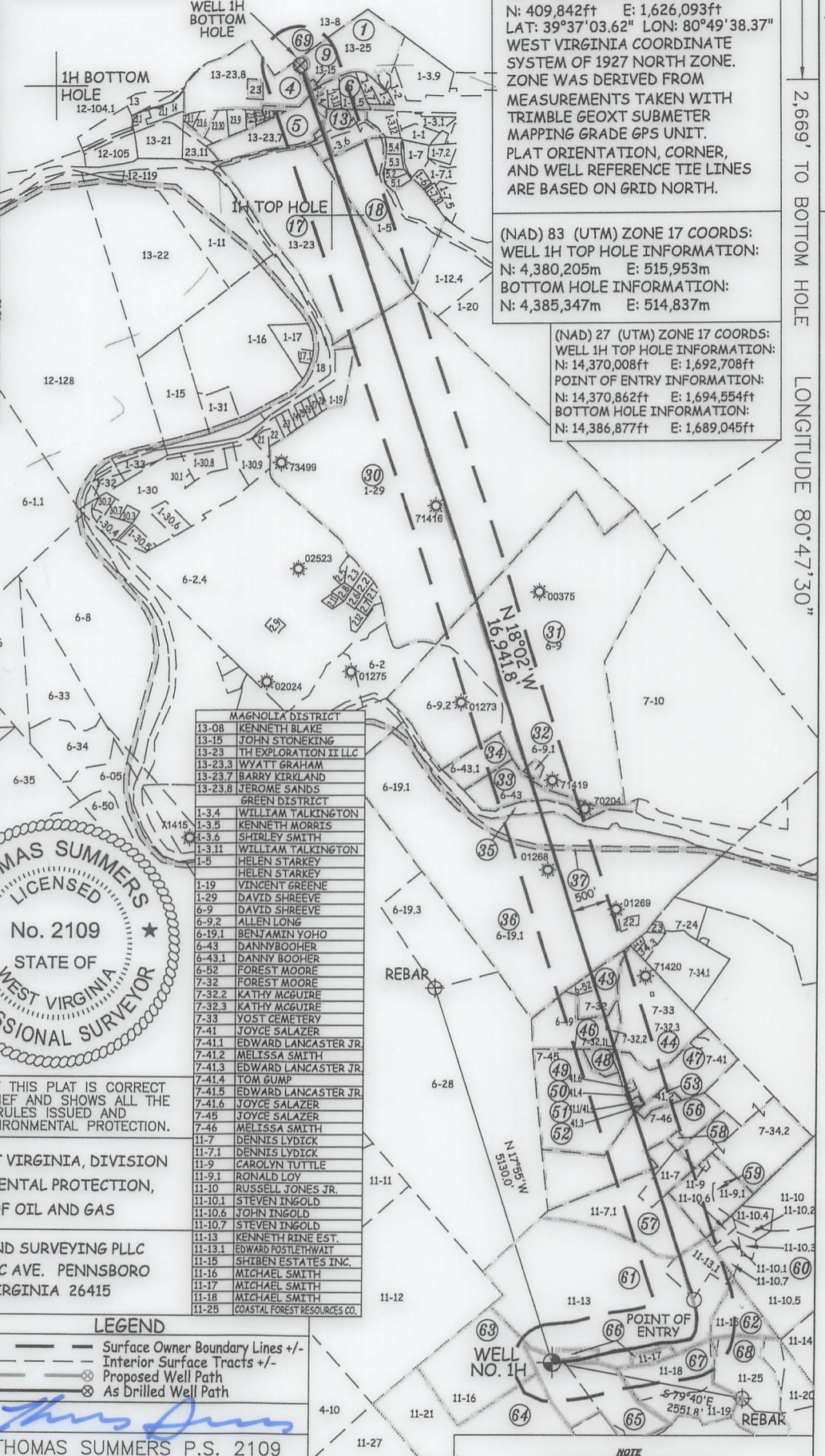
63	DAVID LEE SMITH
64	ROBERT HARRY MYERS, SR.
65	DAVID LEE SMITH
66	MICHAEL EUGENE SMITH
67	DAVID LEE SMITH
68	COASTAL FOREST RESOURCES COMPANY

AS DRILLED DATA:  
 WELL 1H TOP HOLE INFORMATION:  
 N: 392,909ft E: 1,629,476ft  
 LAT: 39°34'16.76" LON: 80°48'51.98"  
 BOTTOM HOLE INFORMATION:  
 N: 409,842ft E: 1,626,093ft  
 LAT: 39°37'03.62" LON: 80°49'38.37"  
 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.

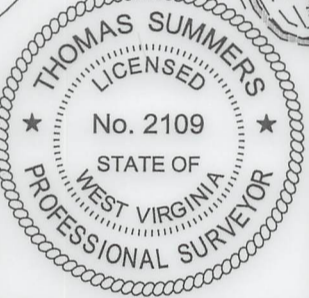
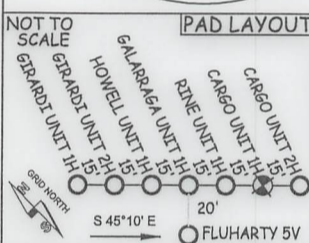
(NAD 83 (UTM) ZONE 17 COORDS:  
 WELL 1H TOP HOLE INFORMATION:  
 N: 4,380,205m E: 515,953m  
 BOTTOM HOLE INFORMATION:  
 N: 4,385,347m E: 514,837m

(NAD 27 (UTM) ZONE 17 COORDS:  
 WELL 1H TOP HOLE INFORMATION:  
 N: 14,370,008ft E: 1,692,708ft  
 POINT OF ENTRY INFORMATION:  
 N: 14,370,862ft E: 1,694,554ft  
 BOTTOM HOLE INFORMATION:  
 N: 14,386,877ft E: 1,689,045ft

1	RICHARD EDWARD ISNER, SR. AND SHEILA D. ISNER
69	DAVID E. BOWTER
4	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
5	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
6	SHIRLEY L. PRICE
9	SHIRLEY L. PRICE
13	SHIRLEY SMITH
17	LILLIE BLANCHE SMITH TESTAMENTARY TRUST
78	HELEN LOUISE STARKEY
10	DAVID L. SHRYVE AND ESTHER SHRYVE
37	WILL PHILLIPS ATKINSON
32	DONALD E. MORGAN, SR.
33	CHESAPEAKE APPALACHIA, LLC.
34	CHESAPEAKE APPALACHIA, LLC.
36	WY DNR
38	STONE HILL MINERALS HOLDINGS, LLC.
37	CSX TRANSPORTATION, INC.
43	PATRICIA A. O'NEIL
44	JOSHUA CURRY CUMP
46	RONALD W. MCCOIRE AND KATHY MALINA MCCOIRE
47	JOHN MATHEW STALEY
48	JOHN MATHEW STALEY
49	JOLAYNE F. WILLIAMS
50	TOMMEY J. CUMP AND JEAN ANN CUMP
57	EDWARD F. LANCASTER, JR. AND SANDY LYNN LANCASTER
62	EDWARD F. LANCASTER, JR. AND SANDY LYNN LANCASTER
63	MELISSA J. LANCASTER
68	TOMMEY J. CUMP AND JEAN ANN CUMP
67	TOMMEY J. CUMP AND JEAN ANN CUMP
65	TOMMEY J. CUMP AND JEAN ANN CUMP
59	HEIRS OF MARGARET EDDY
60	W.C. CUNNINGHAM, ET AL
61	JOHN MATHEW STALEY
62	SHIBEN ESTATES, INC.



WV NORTH ZONE GRID NORTH



13-08	KENNETH BLAKE
13-15	JOHN STONEKING
13-23	TH EXPLORATION II LLC
13-23.3	WYATT GRAHAM
13-23.7	BARRY KIRKLAND
13-23.8	JEROME SANDS
GREEN DISTRICT	
1-3.4	WILLIAM TALKINGTON
1-3.5	KENNETH MORRIS
1-3.6	SHIRLEY SMITH
1-3.11	WILLIAM TALKINGTON
1-5	HELEN STARKEY
1-5	HELEN STARKEY
1-19	VINCENT GREENE
1-29	DAVID SHREEVE
6-9	DAVID SHREEVE
6-9.2	ALLEN LONG
6-19.1	BENJAMIN YOHO
6-43	DANNYBOOHER
6-43.1	DANNY BOOHER
6-52	FOREST MOORE
7-32	FOREST MOORE
7-32.2	KATHY MCGUIRE
7-32.3	KATHY MCGUIRE
7-35	JOYCE GEMETERY
7-41	JOYCE SALAZER
7-41.1	EDWARD LANCASTER JR.
7-41.2	MELISSA SMITH
7-41.3	EDWARD LANCASTER JR.
7-41.4	TOM GUMP
7-41.5	EDWARD LANCASTER JR.
7-41.6	JOYCE SALAZER
7-45	JOYCE SALAZER
7-46	MELISSA SMITH
11-7	DENNIS LYDICK
11-7.1	DENNIS LYDICK
11-9	CAROLYN TUTTLE
11-9.1	RONALD LOY
11-10	RUSSELL JONES JR.
11-10.1	STEVEN INGOLD
11-10.6	JOHN INGOLD
11-10.7	STEVEN INGOLD
11-13	KENNETH RINE EST.
11-13.1	EDWARD POSTLEHWAIT
11-16	SHIBEN ESTATES INC.
11-16	MICHAEL SMITH
11-17	MICHAEL SMITH
11-18	MICHAEL SMITH
11-25	COASTAL FOREST RESOURCES CO.

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

JOB # 21-011WA  
 DRAWING # CARGO1HAD  
 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

LEGEND  
 - - - Surface Owner Boundary Lines +/-  
 - - - Interior Surface Tracts +/-  
 - - - Proposed Well Path  
 - - - As Drilled Well Path  
 THOMAS SUMMERS P.S. 2109  
 DATE 11/22/24  
 OPERATOR'S WELL# CARGO UNIT #1H  
 47 - 103 - 03629  
 STATE COUNTY PERMIT

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WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1,181' WATERSHED FISHING CREEK  
 QUADRANGLE PORTER FALLS 7.5' DISTRICT GREEN COUNTY WETZEL  
 SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 46.95 ACRES±  
 OIL & GAS ROYALTY OWNER DAVID L. SMITH LEASE ACREAGE 67 ACRES±  
 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 6,783' TVD 24,267' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS  
 ADDRESS 1615 WYNKOOP ST. DENVER, CO 80202 ADDRESS 535 WHITE OAK BLVD. BRIDGEPORT, WV 26330

# Hydraulic Fracturing Fluid Product Component Information Disclosure



Job Start Date:	06/15/2024
Job End Date:	08/01/2024
State:	West Virginia
County:	Wetzel
API Number:	47-103-03629-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	CARGO UNIT 1H
Latitude:	39.5714
Longitude:	-80.814265
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6853
Total Base Water Volume (gal)*:	26394370.5
Total Base Non Water Volume:	0

Water Source	Percent
Produced Water	100.00%

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WV Department  
Environmental Protection

## 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
Excelerate LX-21	Halliburton	Friction Reducer					
FDP-S1470-23	Halliburton	Friction Reducer					
FDP-S1489-23	Halliburton	Friction Reducer					
HAI-501	Halliburton	Acid Corrosion Inhibitor					
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
MC B-8123	MultiChem	Biocide					
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
Produced Water (Density 8.8)	Operator	Base Fluid					
Sand-Common White-100 Mesh,	Halliburton	Proppant					

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SSA-2							
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
Items above are Trade Names. Items below are the individual ingredients.							
			Water	7732-18-5	100.00000	86.22352	None
			Crystalline silica, quartz	14808-60-7	100.00000	13.58796	None
			Water	7732-18-5	100.00000	0.15488	None
			Hydrochloric acid	7647-01-0	30.00000	0.03768	None
			Complex amine compound	Proprietary	60.00000	0.01871	None
			Ethanaminium, N,N,N-trimethyl-2-(1-oxo-2-propen-1-yl)oxy-, chloride (1:1), polymer with 2-propenamide	69418-26-4	60.00000	0.01046	None
			Hydrotreated distillate	Proprietary	30.00000	0.00914	None
			Guar gum	9000-30-0	100.00000	0.00611	None
			Hydrotreated light petroleum distillates	64742-47-8	30.00000	0.00523	None
			Ammonium chloride	12125-02-9	5.00000	0.00239	None
			Glutaraldehyde	111-30-8	30.00000	0.00234	None
			Ethoxylated alcohol	Proprietary	5.00000	0.00156	None
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00152	None
			Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	68155-20-4	5.00000	0.00087	None
			Ethoxylated branched C13 alcohol	78330-21-9	5.00000	0.00087	None
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00048	None
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00048	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00039	None
			Methanol	67-56-1	100.00000	0.00024	None
			Petroleum distillate	Proprietary	30.00000	0.00022	None
			Ammonium persulfate	7727-54-0	100.00000	0.00015	None
			Citric acid	77-92-9	1.00000	0.00008	None
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	None
			Modified thiourea polymer	Proprietary	30.00000	0.00007	None
			Oxylated phenolic resin	Proprietary	30.00000	0.00004	None
			Sodium chloride	7647-14-5	5.00000	0.00004	None

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			Ethoxylated fatty acid	Proprietary	5.00000	0.00004	None
			Amide	Proprietary	5.00000	0.00004	None
			Propargyl alcohol	107-19-7	5.00000	0.00001	None
			Hexadecene	629-73-2	5.00000	0.00001	None
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	None
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	None
			Diethanolamine	111-42-2	0.10000	0.00000	None
			Hydroquinone monomethyl ether	150-76-5	0.10000	0.00000	None
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.10000	0.00000	None
			1,2,4 Trimethylbenzene	95-63-6	0.10000	0.00000	None
			Inorganic acid salt	Proprietary	0.10000	0.00000	None
			Fatty acid ester	Proprietary	0.10000	0.00000	None
			Oleic acids	112-80-1	0.01000	0.00000	None

\* 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%

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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