



Antero Resources
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May 15, 2020

West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th 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**:

- Gabitalalek Unit 1H-2H
- Kilska Unit 1H-2H
- Rodzina Unit 1H-3H

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 "MGriffith", 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- _____ - _____ County _____ District _____
Quad _____ Pad Name _____ Field/Pool Name _____
Farm name _____ Well Number _____
Operator (as registered with the OOG) _____
Address _____ City _____ State _____ Zip _____

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing _____ Easting _____
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) _____ 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)

Date permit issued _____ Date drilling commenced _____ Date drilling ceased _____
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft _____ Open mine(s) (Y/N) depths _____
Salt water depth(s) ft _____ Void(s) encountered (Y/N) depths _____
Coal depth(s) ft _____ Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) _____

Reviewed by:

API 47- _____ - _____ Farm name _____ Well number _____

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							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

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							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) _____ Loggers TD (ft) _____
 Deepest formation penetrated _____ Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) _____

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 _____

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 _____

API 47- _____ - _____ Farm name _____ Well number _____

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.

API 47- _____ - _____ Farm name _____ Well number _____

PRODUCING FORMATION(S)

DEPTHS

_____	_____ TVD	_____ 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 _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ 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 ₂ S, ETC)
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***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company _____
Address _____ City _____ State _____ Zip _____

Stimulating Company _____
Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by _____ Telephone _____
Signature _____ Title _____ Date _____

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	10/16/2019	20449	20405	60	Marcellus
2	10/17/2019	20365.48485	20199.9091	60	Marcellus
3	10/18/2019	20164.39394	19998.8182	60	Marcellus
4	10/18/2019	19963.30303	19797.7273	60	Marcellus
5	10/19/2019	19762.21212	19596.6364	60	Marcellus
6	10/19/2019	19561.12121	19395.5455	60	Marcellus
7	10/20/2019	19360.0303	19194.4545	60	Marcellus
8	10/20/2019	19158.93939	18993.3636	60	Marcellus
9	10/21/2019	18957.84848	18792.2727	60	Marcellus
10	10/21/2019	18756.75758	18591.1818	60	Marcellus
11	10/22/2019	18555.66667	18390.0909	60	Marcellus
12	10/22/2019	18354.57576	18189	60	Marcellus
13	10/23/2019	18153.48485	17987.9091	60	Marcellus
14	10/24/2019	17952.39394	17786.8182	60	Marcellus
15	10/24/2019	17751.30303	17585.7273	60	Marcellus
16	10/25/2019	17550.21212	17384.6364	60	Marcellus
17	10/25/2019	17349.12121	17183.5455	60	Marcellus
18	10/26/2019	17148.0303	16982.4545	60	Marcellus
19	10/26/2019	16946.93939	16781.3636	60	Marcellus
20	10/28/2019	16745.84848	16580.2727	60	Marcellus
21	10/29/2019	16544.75758	16379.1818	60	Marcellus
22	10/29/2019	16343.66667	16178.0909	60	Marcellus
23	10/30/2019	16142.57576	15977	60	Marcellus
24	10/30/2019	15941.48485	15775.9091	60	Marcellus
25	10/30/2019	15740.39394	15574.8182	60	Marcellus
26	10/30/2019	15539.30303	15373.7273	60	Marcellus
27	10/31/2019	15338.21212	15172.6364	60	Marcellus
28	10/31/2019	15137.12121	14971.5455	60	Marcellus
29	10/31/2019	14936.0303	14770.4545	60	Marcellus
30	10/31/2019	14734.93939	14569.3636	60	Marcellus
31	11/1/2019	14533.84848	14368.2727	60	Marcellus
32	11/1/2019	14332.75758	14167.1818	60	Marcellus
33	11/1/2019	14131.66667	13966.0909	60	Marcellus
34	11/1/2019	13930.57576	13765	60	Marcellus
35	11/2/2019	13729.48485	13563.9091	60	Marcellus
36	11/2/2019	13528.39394	13362.8182	60	Marcellus
37	11/2/2019	13327.30303	13161.7273	60	Marcellus
38	11/2/2019	13126.21212	12960.6364	60	Marcellus
39	11/3/2019	12925.12121	12759.5455	60	Marcellus
40	11/3/2019	12724.0303	12558.4545	60	Marcellus
41	11/3/2019	12522.93939	12357.3636	60	Marcellus
42	11/3/2019	12321.84848	12156.2727	60	Marcellus
43	11/3/2019	12120.75758	11955.1818	60	Marcellus
44	11/4/2019	11919.66667	11754.0909	60	Marcellus
45	11/4/2019	11718.57576	11553	60	Marcellus
46	11/4/2019	11517.48485	11351.9091	60	Marcellus
47	11/5/2019	11316.39394	11150.8182	60	Marcellus
48	11/5/2019	11115.30303	10949.7273	60	Marcellus
49	11/5/2019	10914.21212	10748.6364	60	Marcellus
50	11/5/2019	10713.12121	10547.5455	60	Marcellus
51	11/5/2019	10512.0303	10346.4545	60	Marcellus
52	11/6/2019	10310.93939	10145.3636	60	Marcellus
53	11/6/2019	10109.84848	9944.27273	60	Marcellus
54	11/6/2019	9908.757576	9743.18182	60	Marcellus
55	11/6/2019	9707.666667	9542.09091	60	Marcellus
56	11/6/2019	9506.575758	9341	60	Marcellus
57	11/7/2019	9305.484848	9139.90909	60	Marcellus
58	11/7/2019	9104.393939	8938.81818	60	Marcellus
59	11/7/2019	8903.30303	8737.72727	60	Marcellus
60	11/7/2019	8702.212121	8536.63636	60	Marcellus
61	11/7/2019	8501.121212	8335.54545	60	Marcellus
62	11/8/2019	8300.030303	8134.45455	60	Marcellus
63	11/8/2019	8098.939394	7933.36364	60	Marcellus
64	11/8/2019	7897.848485	7732.27273	60	Marcellus
65	11/8/2019	7696.757576	7531.18182	60	Marcellus
66	11/8/2019	7495.666667	7330.09091	60	Marcellus
67	11/9/2019	7294.575758	7129	60	Marcellus

EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	10/16/2019	72.40921	7407.776	4425	4072	159860	4856.356	N/A
2	10/17/2019	75.92827	8075.701	5399	4439	399800	9687.186	N/A
3	10/18/2019	77.52875	8010.234	5886	4212	402080	8766.74	N/A
4	10/18/2019	73.64068	8198.411	5939	4413	399560	8778.75	N/A
5	10/19/2019	75.15971	8391.019	5589	3846	401040	8852.05	N/A
6	10/19/2019	77.51643	8152.03	5839	3725	400280	8738.285	N/A
7	10/20/2019	81.67548	8372.431	6215	3750	401960	8879.395	N/A
8	10/20/2019	76.71203	8143.424	4883	4095	400200	8585.945	N/A
9	10/21/2019	77.11791	8339.362	6181	3660	400200	8864.865	N/A
10	10/21/2019	80.8	8320	6537	4028	400200	8617.225	N/A
11	10/22/2019	77.12732	8384.47	5926	3861	399300	8911.265	N/A
12	10/22/2019	77.21265	8333.572	6286	4107	400760	8679.395	N/A
13	10/23/2019	76.19978	7942.902	5977	3850	400080	8392.215	N/A
14	10/24/2019	83.05163	8205.809	5380	4076	396820	8675.68	N/A
15	10/24/2019	80.1599	8494.097	5491	3931	399480	8899.325	N/A
16	10/25/2019	79.95123	8285.149	4717	3847	398860	8678.215	N/A
17	10/25/2019	80.32119	8504.41	5981	3996	398260	8593.025	N/A
18	10/26/2019	78.71737	8095.956	5855	4124	407480	8807.935	N/A
19	10/26/2019	76.14476	8562.363	5882	4132	399020	8588.055	N/A
20	10/28/2019	78.79114	7882.724	5791	3904	400900	8605.02	N/A
21	10/29/2019	83.29319	8301.14	5406	3641	410520	8346.56	N/A
22	10/29/2019	78.1244	8403.343	5817	3898	405600	8592.16	N/A
23	10/30/2019	75.33667	7908.581	5702	3608	405140	8719.85	N/A
24	10/30/2019	75.92898	7630.316	5745	3687	405840	8682.83	N/A
25	10/30/2019	75.89578	8058.056	5777	3910	405280	8666.75	N/A
26	10/30/2019	78.39687	8038	6127	4068	416520	8774.42	N/A
27	10/31/2019	76.57389	7863.617	6048	3675	407640	8682.23	N/A
28	10/31/2019	77.31482	7751.917	5043	3983	402460	8510.78	N/A
29	10/31/2019	84.88495	8260.399	5834	3994	392880	8473.93	N/A
30	10/31/2019	84.19305	8176.809	5428	4115	402580	8425.01	N/A
31	11/1/2019	78.82868	7845.327	6355	4083	396400	8464.47	N/A
32	11/1/2019	77.87796	7821.521	5996	3967	398000	8545.73	N/A
33	11/1/2019	79.93924	7986.109	5761	4353	400900	8441.01	N/A
34	11/1/2019	79.01572	7722.968	6015	4632	399960	8411.62	N/A
35	11/2/2019	77.38476	7591.394	5486	4404	401740	8470.06	N/A
36	11/2/2019	78.79373	7607.804	6186	4451	402980	8284.72	N/A
37	11/2/2019	86.59664	7826.696	4769	4423	399300	8196.59	N/A
38	11/2/2019	84.68283	7887.841	5617	4147	399840	8502.74	N/A
39	11/3/2019	85.59481	7963.136	5195	4161	405800	8513.34	N/A
40	11/3/2019	83.92886	7653.136	6059	4432	400160	8487.25	N/A
41	11/3/2019	79.40892	7797.873	5878	4334	402440	8549.61	N/A
42	11/3/2019	80.9822	7789.163	5722	4308	403700	8485.91	N/A
43	11/3/2019	80.79295	7569.482	5582	3988	402300	8377.05	N/A
44	11/4/2019	85.17312	7719.279	6019	3976	400300	8218.79	N/A
45	11/4/2019	81.99169	7716.223	6089	3966	400500	8128.6	N/A
46	11/4/2019	84.76169	7930.344	5352	3911	402060	8347.38	N/A
47	11/5/2019	85.36571	8283.49	5825	3809	402100	8404.8	N/A
48	11/5/2019	84.91305	7978.913	5817	3826	392460	8300.17	N/A
49	11/5/2019	85.80801	7809.39	5847	4011	396760	8458.66	N/A
50	11/5/2019	84.66776	7837.71	6254	4011	393960	8492.81	N/A
51	11/5/2019	86.2236	7713.424	6231	3988	401160	8424.92	N/A
52	11/6/2019	85.74679	7909.34	5734	3669	405380	8426.4	N/A
53	11/6/2019	85.2144	7766.632	6238	3866	397420	8302.59	N/A
54	11/6/2019	86.14711	7480.237	5892	3884	404100	8257.66	N/A
55	11/6/2019	87.52195	7516.712	4707	3796	400400	8256.49	N/A
56	11/6/2019	86.44193	7696.521	6018	4057	411700	8338.61	N/A
57	11/7/2019	86.44853	7839.39	6135	3872	407000	8405.35	N/A
58	11/7/2019	84.95978	7531.511	5383	3950	406520	8254.61	N/A
59	11/7/2019	84.9121	7377.804	5534	4067	403400	8498.45	N/A
60	11/7/2019	86.61807	7443.019	5926	3681	406500	8441.52	N/A
61	11/7/2019	86.46645	7175.082	5809	3634	403020	8136.35	N/A
62	11/8/2019	85.52726	7398.142	5891	3770	402960	8441.62	N/A
63	11/8/2019	85.52223	7615.657	5598	4060	408520	8355.21	N/A
64	11/8/2019	84.17643	7125.518	5857	3822	404160	8310.23	N/A
65	11/8/2019	85.35818	7411.649	6179	3817	405220	8200.67	N/A
66	11/8/2019	81.89918	7053.488	5872	4352	398160	9910.3	N/A
67	11/9/2019	87.71131	7398.103	5435	3760	399420	8653.79	N/A
	AVG=	79.0	8,054	5,718	4,050	16,228,120	350,199	TOTAL

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

Company Name: _____

API No: _____ County: _____

District: _____ Well No: _____

Farm Name: _____

Discharge Date/s From:(MMDDYY) _____ To: (MMDDYY) _____

Discharge Times. From: _____ To: _____

Total Volume to be Disposed from this facility (gallons): _____

Disposal Option(s) Utilized (write volumes in gallons):

(1) Land Application: _____ (Include a topographical map of the Area.)

(2) UIC: _____ Permit No. _____

(3) Offsite Disposal: _____ Site Location: _____

(4) Reuse: _____ Alternate Permit Number: _____

(5) Centralized Facility: _____ Permit No. _____

(6) Other method: _____ (Include an explanation)

Follow Instructions below to determine your treatment category:

Optional Pretreatment test: _____ Cl- mg/l _____ DO mg/l

1. Do you have permission to use expedited treatment from the Director or his representative?
(Y/N) _____ 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) _____ If yes, go to line 5. If not, go to line 3.
3. Do you have a chloride value pretreatment (see above)? (Y/N) _____ If yes, go to line 4
If not, go to line 5.
4. Is the Chloride level less than 5000 mg/l? (Y/N) _____ If yes, then enter a one (1) on line 7.
5. Do you have a pretreatment value for DO? (See above) (Y/N) _____ 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) _____ If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
7. _____ is the category of your pit. Use the Appropriate section.
8. Comments on Pit condition: _____

Name of Principal Exec. Officer: _____

Title of Officer: _____

Date Completed: _____

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.

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
 Field: Tyler
 Facility: Dawson Pad

Slot: Slot #10
 Well: Rodzina Unit 2H
 Wellbore: Rodzina Unit 2H PWB

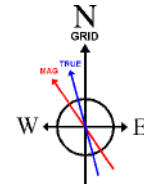
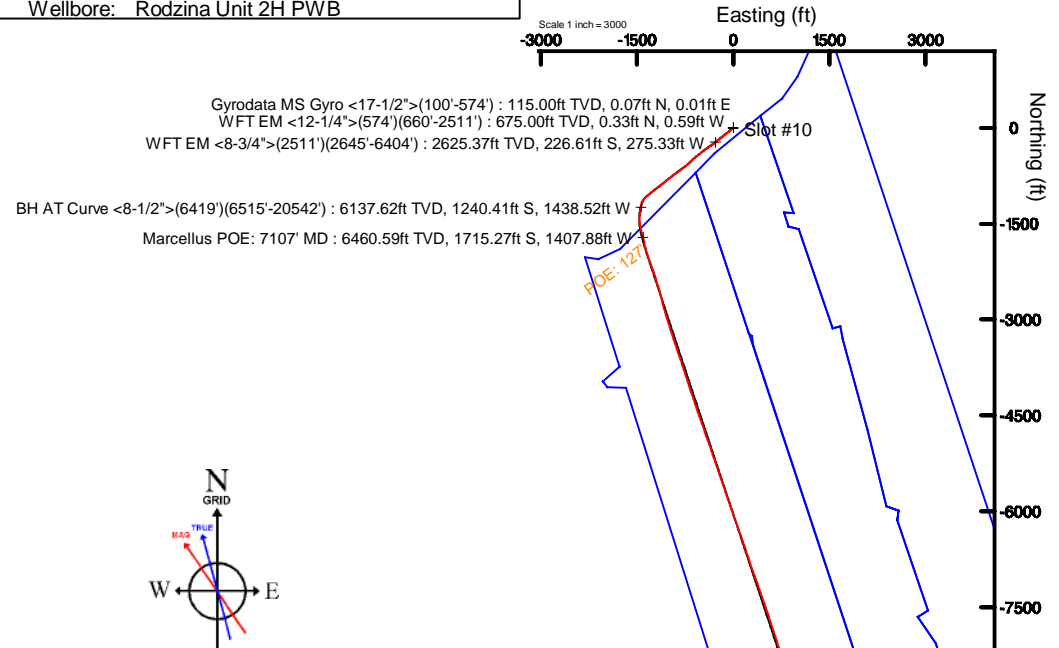
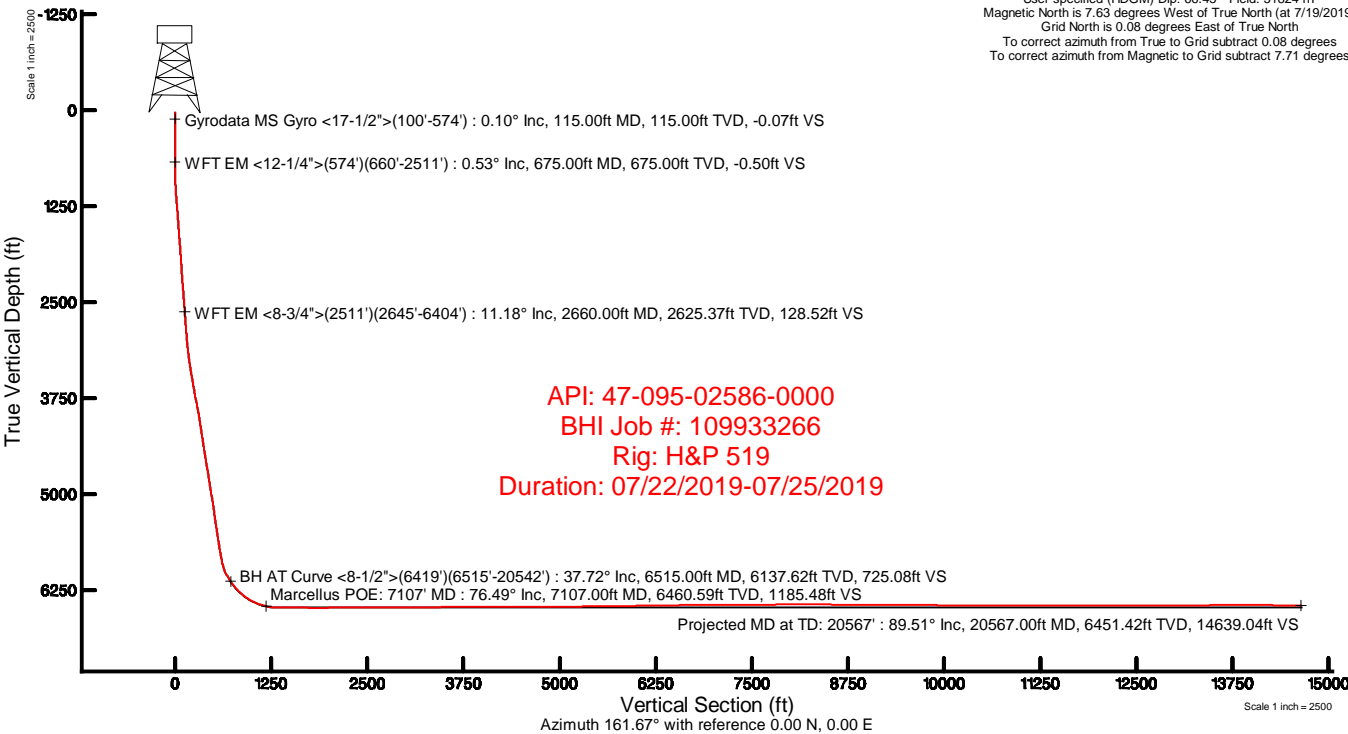


Plot reference wellpath is Rodzina Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 1039 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #10): -1009 feet	Created by: delaset on 2019-08-07
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Dawson Pad	1676049.728	14300592.517	39°22'50.710"N	80°52'26.030"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Longitude
Slot #10	-206.10	220.16	1676269.800	14300386.500	39°22'48.670"N 80°52'23.230"W
H&P 519 (RKB) to Ground level (At Slot: Slot #10)			30ft		
Mean Sea Level to Ground level (At Slot: Slot #10)			-1009ft		
H&P 519 (RKB) to Mean Sea Level			1039ft		

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	6419.00	33.490	194.190	6059.58	-1185.88	-1426.41	7.53	677.12
PTB	6494.00	36.050	194.190	6121.18	-1227.34	-1436.89	3.41	713.18
Build/Turn	6539.94	38.900	198.309	6157.64	-1254.15	-1444.74	8.26	736.16
POE	7071.45	73.845	165.000	6453.00	-1680.20	-1430.39	8.26	1145.11
LP	7249.96	90.000	165.000	6478.00	-1850.35	-1384.80	9.05	1320.96
On Azimuth	7360.86	90.000	161.673	6478.00	-1956.58	-1353.00	3.00	1431.80
BHL	20575.86	90.000	161.673	6478.00	-14501.28	2802.31	0.00	14646.80

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #10	Rodzina Unit 2H	Rodzina Unit 2H AWB	Rodzina Unit 2H AWP Proj: 20567'
Slot #10	Rodzina Unit 2H	Rodzina Unit 2H PWB	Rodzina Unit 2H PWP Rev-A.0



User specified (HDGM) Dip: 66.45° Field: 51824 nT
 Magnetic North is 7.63 degrees West of True North (at 7/19/2019)
 Grid North is 0.08 degrees East of True North
 To correct azimuth from True to Grid subtract 0.08 degrees
 To correct azimuth from Magnetic to Grid subtract 7.71 degrees

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/16/2019
Job End Date:	11/9/2019
State:	West Virginia
County:	Tyler
API Number:	47-095-02586-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Rodzina 2H
Latitude:	39.38018600
Longitude:	-80.87311900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,457
Total Base Water Volume (gal):	25,047,239
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
Water	Supplied by Operator	Base Fluid					
			Water	7732-18-5	100.00000	88.39398	
Calbreak 5501	CWS	Breaker					
				Listed Below			

DAP-103	CWS	Iron Control					
				Listed Below			
Hydrochloric Acid	CWS	Clean Perforations					
				Listed Below			
DynaRate 6522	CWS	Friction Reducer					
				Listed Below			
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			
CI-9100G	CWS	Corrosion Inhibitor					
				Listed Below			
CalGel 4000	CWS	Gel Slurry					
				Listed Below			
SaniFrac 8844	CWS	Biocide					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				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	11.29364	
			Illite	12173-60-3	1.00000	0.11293	

			Hydrochloric acid	7647-01-0	37.00000	0.08630	
			Copolymer of 2-propenamide	69418-26-4	30.00000	0.01561	
			Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.01133	
			Guar gum	9000-30-0	60.00000	0.01133	
			Biotite	1302-27-8	0.10000	0.01129	
			Ilmenite	98072-94-7	0.10000	0.01129	
			Apatite	64476-38-6	0.10000	0.01129	
			Goethite	1310-14-1	0.10000	0.01129	
			Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.01040	
			Polyethylene glycol mixture	25322-68-3	54.50000	0.00817	
			Ammonium chloride	12125-02-9	8.00000	0.00416	
			2,2-Dibromo-3-Nitrilopropionamide	10222-01-2	20.00000	0.00300	
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00104	
			Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5.00000	0.00094	
			Sodium bromide	7647-15-6	4.00000	0.00060	
			Dibromoacetonitrile	3252-43-5	3.00000	0.00045	
			Ammonium Persulfate	7727-54-0	100.00000	0.00037	
			Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00028	
			Citric acid	77-92-9	60.00000	0.00010	
			Vinylidene chloride-methyl acrylate copolymer	25038-72-6	20.00000	0.00007	
			Ethylene Glycol	107-21-1	40.00000	0.00005	
			Diethylene glycol, monomethyl ether	34590-94-8	20.00000	0.00002	
			Ethoxylated Alcohols	68131-39-5	10.00000	0.00001	

			Cinnamaldehyde	104-55-2	10.00000	0.00001	
			Tar bases, quinolone derivs, benzyl chloride- quatenized	72480-70-7	10.00000	0.00001	
			Formic acid	64-18-6	10.00000	0.00001	
			Isopropyl alcohol	67-63-0	5.00000	0.00001	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

LATITUDE 39°25'00"

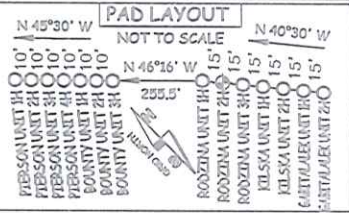
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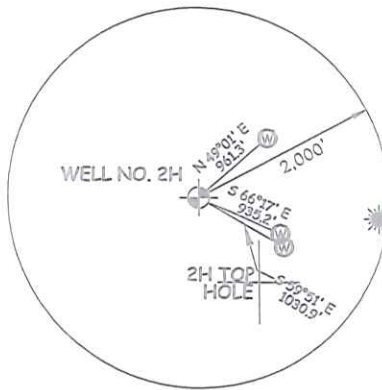
Antero Resources Corporation
Well No. Rodzina Unit 2H

NOTES:
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BOTTOM HOLE INFORMATION:
 N: 4,354,568m E: 511,794m



3 WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD



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

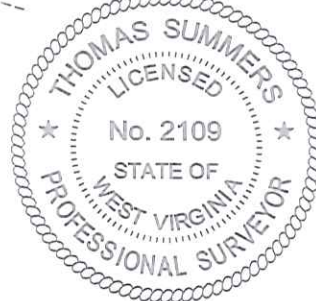
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 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

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JOB # 18-030WA
 DRAWING # RODZINA2HAD
 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 05/01/20
 OPERATOR'S WELL# RODZINA UNIT #2H



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL 47 - 095 - 02586
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW STATE COUNTY PERMIT
 LOCATION: ELEVATION 1,009' - AS BUILT WATERSHED HEADWATERS MIDDLE ISLAND CREEK
 QUADRANGLE SHIRLEY 7.5' (TH) WEST UNION 7.5' (BH) DISTRICT CENTERVILLE COUNTY TYLER
 SURFACE OWNER GARY D. DAWSON ET UX ACREAGE 104.27 ACRES +/-
 OIL & GAS ROYALTY OWNER GARY D. DAWSON ET UX; COASTAL FOREST RESOURCES CO.; RALPH J. UNDERWOOD; LEASE ACREAGE 104.27 AC.; 108 AC.; 76 AC.;
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 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 6,451' TVD 20,567' 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

Clay District - Ritchie County

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12-14.4	Gary Dawson
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WV NORTH ZONE GRID NORTH

LONGITUDE 80°50'00"

13.287'

LONGITUDE 80°50'00"

COUNTY NAME PERMIT

LATITUDE 39°25'00"

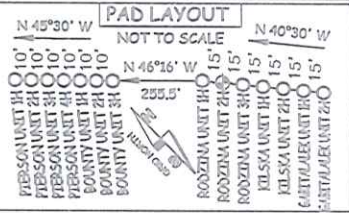
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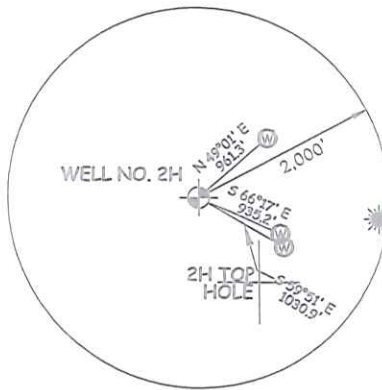
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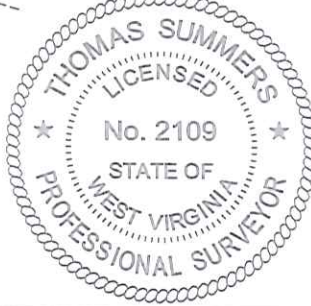
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