

#### west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Monday, October 28, 2024 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET

DENVER, CO 80202

Re:

Permit approval for Jessica Unit 1H

47-095-02899-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

A. Martin

Operator's Well Number: Jessica Unit 1H

Farm Name: Antero Resources Corporation

U.S. WELL NUMBER: 47-095-02899-00-00

Horizontal 6A New Drill

Date Issued: 10/28/2024

API Number:	
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### PERMIT CONDITIONS

4709502899

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

COMPILION	NDITIONS	TI	D	N	CO
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- This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE).
   Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Also, 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief
  or his designee immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
- 11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

WW-6B (04/15)

API NO. 47-095 -		
<b>OPERATOR WELL</b>	NO.	Jessica Unit 1H
Well Pad Name:	Shinn	Pad

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

1) Well Operat	or: Antero	Resources	Corporal	494507062	095 - Tyler	Lincoln	Paden City
				Operator ID	County	District	Quadrangle
2) Operator's V	Vell Number	Jessica Ur	nit 1H	Well Pad	Name: Shinn	Pad	
3) Farm Name/	Surface Own	ner: Antero Res	sources Corp	oration Public Roa	d Access: Bac	lger Run F	Road
4) Elevation, co	urrent ground	1: 1043'	Ele	evation, proposed	post-constructi	on: 1036'	
5) Well Type	(a) Gas Other	X	Oil	Unde	erground Storag	ge	
	(b)If Gas	Shallow	X	Deep			
	(b)II Gas	Horizontal	X	Беер			
6) Existing Pad	l: Yes or No		Territoria de la companya della companya della companya de la companya della comp				
7) Proposed Ta	rget Formati	on(s), Depth		ipated Thickness a ss- 55 feet, Associa			
8) Proposed To	tal Vertical I	Depth: 6700	D' TVD				
9) Formation a	t Total Vertic	al Depth:	Marcellus				
10) Proposed T	otal Measure	ed Depth:	10700' MI	D			
11) Proposed H	Iorizontal Le	g Length:	500'				
12) Approxima	te Fresh Wat	er Strata De	oths:	328			
13) Method to	Determine Fi	resh Water D	epths: 4	7-095-02781			
14) Approxima	te Saltwater	Depths: 14	40				
15) Approxima	te Coal Sean	Depths: N	/A				
16) Approxima	te Depth to F	Possible Void	d (coal mi	ne, karst, other):	None Anticipa	ted	
17) Does Propo directly overlyi				Yes	No	X	
(a) If Yes, pro	ovide Mine In	nfo: Name:					
		Depth					
		Seam:					
		Owner	:				

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11/01/2024

WW-6B (04/15)

API NO. 47-\_095

OPERATOR WELL NO. \_\_Jessica Unit 1H

Well Pad Name: Shinn Pad

18)

#### CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100	100	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	378	378	CTS, 394 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500	2500	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	10700	10700	1768 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438"	1530	50	Class A/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A/L	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A/L	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630	2500	Lead-H/POZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

#### **PACKERS**

Kind:	N/A	
Sizes:	N/A	
Depths Set:	N/A	

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11/01/2024

WW-6B (10/14)

API NO. 47-\_095 \_ OPERATOR WELL NO. \_Jessica Unit 1H
Well Pad Name: \_Shinn Pad

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill, perforate, fracture a new shallow well and complete Marcellus Shale.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs Anticipated Max Rate - 80 bpm

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 38.08 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 16.29 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.

Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.

Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A/L cement.

Surface: Class A/L cement with 2-3% calcium chloride and 1/4 lb of flake Intermediate: Class A/L cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51 Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

\*Note: Attach additional sheets as needed.

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11/01/2024

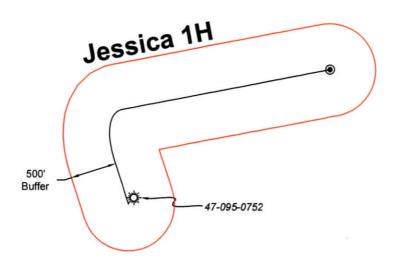
4709502899

#### LEGEND

- Proposed gas well
- Existing Well, as noted
- Digitized Well, as noted

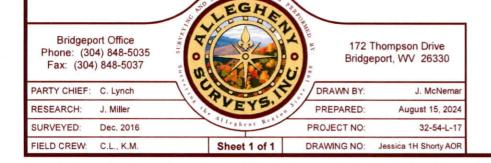


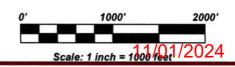
The orientation of this survey is Grid North, and its coordinate base is the West Virginia Coordinate System of 1927, North Zone



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SEP 23 2024





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		l						
UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	mol	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perfd
		***************************************				Tarreta turi (arranta tradi) acapaci,	7 611616161617	700000000000000000000000000000000000000
47095007520000	STARKEY CLAIR	l 6	LIPPIZAN PETROLEUMING	EMES JIM PET	3,433	2846 - 2889	Gordon	Alexander, Weir, Berea, Warren



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Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304 Phone (304) 926-0450 Harold D. Ward, Cabinet Secretary dep.wv.gov

#### BEFORE THE OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE OF WEST VIRGINIA

)		
)	ORDER NO.	2022-14
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)		
)		
ý		
	)	) ORDER NO. ) ) )

#### REPORT OF THE OFFICE

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well construction.

Office of Oil and Gas
SEP 2 3 2024

#### FINDINGS OF FACT

WV Department of Environmental Protection

- 1. On July 14, 2022, Northeast Natural Energy (NNE) submitted a variance request from Legislative Rule 35CSR8 Section 9.2.h.8., for the use of API Class L cement in place of API Class A cement, relating to the construction of horizontal wells.
- Laboratory analysis submitted by NNE on July 14, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
- 3. Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a variance to Legislative Rule 35CSR4 Section 11.5., for the use of API Class L cement in place of API Class A cement, relating to the construction of vertical wells.

Promoting a healthy environment.

On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of
public comments on the variance consideration. During the 20-day public comment
period, no comments were received.

#### CONCLUSIONS OF LAW

Pursuant to Article 6 and Article 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.

#### ORDER

It is ordered that the Class L cement product approved and monogramed by API is approved for use in place of API Class A cement for well construction subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OF THE STATE OF WEST VIRGINIA

James Martin, Chief Office of Oil and Gas

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Office of Oil and Gas

SEP 2 3 2024

September 19, 2024

West Virginia Office of Oil and Gas Attn: Taylor Brewer 601 57<sup>th</sup> St SE Charleston, WV 25304

RE: Request for Variance – Class L Cement

Acadia Unit 1H & 2H, Jessica Unit 1H-3H, Tennessee Unit 1H & 2H

Tyler County, WV

Mr. Brewer:

Pursuant to 35CSR8 Section 9.2.h.8, Antero Resources Corporation ("Antero") would like to implement the variance to allow Class L Cement in place of Class A cement relating to the construction of the following horizontal well (Acadia Unit 1H) on the Shinn pad.

Antero only plans to use this method if Class A cement is not available to be use due to supply issues. Please see Order No 2022-14 attached.

If you have any questions or need further information, please feel free to contact Mallory Turco, Permitting Manager, at (303) 357-7182 or email at <a href="mailto:mturco@anteroresources.com">mturco@anteroresources.com</a>.

Sincerely,

Stefan Gaspar Permitting Agent

Antero Resources Corporation

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Office of Oil and Gas

SEP 2 3 2024

WW-9 (4/16)

API Number	47	_	095	-
Ope	rato	r's	Well No	Jessica Unit 1H

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

#### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name_Antero Resources Corporation OP Code 494507062
Watershed (HUC 10) Outlet Middle Island Creek Quadrangle Paden City
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No
Will a pit be used? Yes No V
If so, please describe anticipated pit waste:  No pit will be used at this site (Drilling and Flowback Fluids will be stored in tanks. Cuttings will be tanked and hauled off site.)
Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A
Proposed Disposal Method For Treated Pit Wastes:
Land Application
Underground Injection (UIC Permit Number *UIC Permit # will be provided on Form WR-34
Reuse (at API Number_Future permitted well locations when applicable. API# will be provided on Form WR-34  Off Site Disposal (Supply form WW-9 for disposal location(Meadowfill Landfill Permit #SWF-1032-98)
Other (Explain Northwestern Landfill Permit #SWF-1025/
WV0109410 Wetzel Co Landfill Permit #SWF-1021
Will closed loop system be used? If so, describe: Yes, fluids stored in tanks, cuttings removed offsite and taken to landfill.
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.
-If oil based, what type? Synthetic, petroleum, etc. Synthetic
Additives to be used in drilling medium? Please See Attachment
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etcDrill cuttings stored in tanks, removed offsite and taken to landfill.
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A
-Landfill or offsite name/permit number?  Meadowfill Landfill (Permit #SWF-1032-98), Northwestern Landfill (Permit #SWF-1025/WV0109410)  Wetzel Co Landfill (Permit #SWF-1021)
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 or imprisonment.  Office of Oil and Gas
Company Official Signature Gretchen Kohler SEP 2 3 2024
Company Official (Typed Name) Gretchen Konier
Company Official Title Director of Environmental & Regulatory Compliance  WV Department of Environmental Protection
Subscribed and sworn before me this 20 day of September, 20 24  Stefan Gaspar  My commission expires November 15, 2026  STEFAN GASPAR NOTARY PUBLIC
My commission expires NOVIM her 15, 2026 STEFAN GASPAR NOTARY PUBLIC START PUBLIC S

Operator's Well No. Jessica Unit 1H

Proposed Revegetation Treatment: Acres Disturbed 38.08	B acres Prevegetation pH	
Lime 2-4 Tons/acre or to correct to	pH 6.5	
Fertilizer type Hay or straw or Wood Fiber (will be use	ed where needed)	
Fertilizer amount 500	lbs/acre	
Mulch 2-3 Ton	ns/acre	
Access Road "A" (11.64 acres)+Well Pad(16.29 acres) +Truck		s (9,96 acres) =38,08 Acres
<u>s</u>	eed Mixtures	
Temporary	Perman	ent
Seed Type lbs/acre	Seed Type	lbs/acre
Annual Ryegrass 40	Crownvetch	10-15
Field Bromegrass 40	Tall Fescue/Perennial Ryegrass	30 / 20
See attached Table IV-3 for additional seed type (Shinn Pad Design)	See attached Table IV-4A for additional	seed type (Shinn Pad Design)
or type of grass seed requested by surface owner	*or type of grass seed reques	sted by surface owner
hotocopied section of involved 7.5' topographic sheet.		
Plan Approved by:		
0. (	h pu aus.	
0	h pu crets.	

#### Form WW-9 Additives Attachment

#### **SURFACE INTERVAL**

- 1. Fresh Water
- 2. Soap -- Foamer AC
- 3. Air

#### **INTERMEDIATE INTERVAL**

#### STIFF FOAM RECIPE:

- 1) 1 ppb Soda Ash / Sodium Carbonate-Alkalinity Control Agent
- 2) 1 ppb Conqor 404 (11.76 ppg) / Corrosion Inhibitor
- 3) 4 ppb KLA-Gard (9.17 ppg) / Amine Acid Complex-Shale Stabilizer
- 4) 1ppb Mil Pac R / Sodium Carboxymethylcellulose-Filtration Control Agent
- 5) 12 ppb KCL / Potassium Chloride-inorganic Salt
- 6) Fresh Water 80 bbls
- 7) Air

#### **PRODUCTION INTERVAL**

1. Alpha 1655

Salt Inhibitor

2. Mil-Carb

Calcium Carbonate

3. Cottonseed Hulls

Cellulose-Cottonseed Pellets - LCM

4. Mil-Seal

Vegetable, Cotton & Cellulose-Based Fiber Blend – LCM

5. Clay-Trol

Amine Acid Complex - Shale Stabilizer

6. Xan-Plex

Viscosifier For Water Based Muds

7. Mil-Pac (All Grades)

Sodium Carboxymethylcellulose – Filtration Control Agent

8. New Drill

Anionic Polyacrylamide Copolymer Emulsion - Shale Stabilizer

9. Caustic Soda

Sodium Hydroxide – Alkalinity Control

10. Mil-Lime

Calcium Hydroxide - Lime

11. LD-9

Polyether Polyol – Drilling Fluid Defoamer

12. Mil Mica

Hydro-Biotite Mica - LCM

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SEP 23 2024

13. Escaid 110

Drilling Fluild Solvent - Aliphatic Hydrocarbon

14. Ligco

Highly Oxidized Leonardite - Filteration Control Agent

15. Super Sweep

Polypropylene - Hole Cleaning Agent

16. Sulfatrol K

Drilling Fluid Additive - Sulfonated Asphalt Residuum

17. Sodium Chloride, Anhydrous

Inorganic Salt

18. D-D

Drilling Detergent - Surfactant

19. Terra-Rate

Organic Surfactant Blend

20. W.O. Defoam

Alcohol-Based Defoamer

21. Perma-Lose HT

Fluid Loss Reducer For Water-Based Muds

22. Xan-Plex D

Polysaccharide Polymer - Drilling Fluid Viscosifier

23. Walnut Shells

Ground Cellulosic Material - Ground Walnut Shells - LCM

24. Mil-Graphite

Natural Graphite - LCM

25. Mil Bar

Barite - Weighting Agent

26. X-Cide 102

Biocide

27. Soda Ash

Sodium Carbonate - Alkalinity Control Agent

28. Clay Trol

Amine Acid complex – Shale Stabilizer

29. Sulfatrol

Sulfonated Asphalt – Shale Control Additive

30. Xanvis

Viscosifier For Water-Based Muds

31. Milstarch

Starch - Fluid Loss Reducer For Water Based Muds

32. Mil-Lube

**Drilling Fluid Lubricant** 

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Office of Oil and Gas

SEP 2 3 2024



911 Address: 721 Badger Run Rd, Sistersville WV 26175

### Well Site Safety Plan Antero Resources

Well Name: Shinn Unit 5V, Acadia Unit 1H, Acadia Unit 2H, Jessica Unit 1H, Jessica Unit 3H, Tennessee Unit 1H, Tennessee Unit 2H

Pad Location: Shinn PAD

Tyler County/Lincoln District

GPS Coordinates:

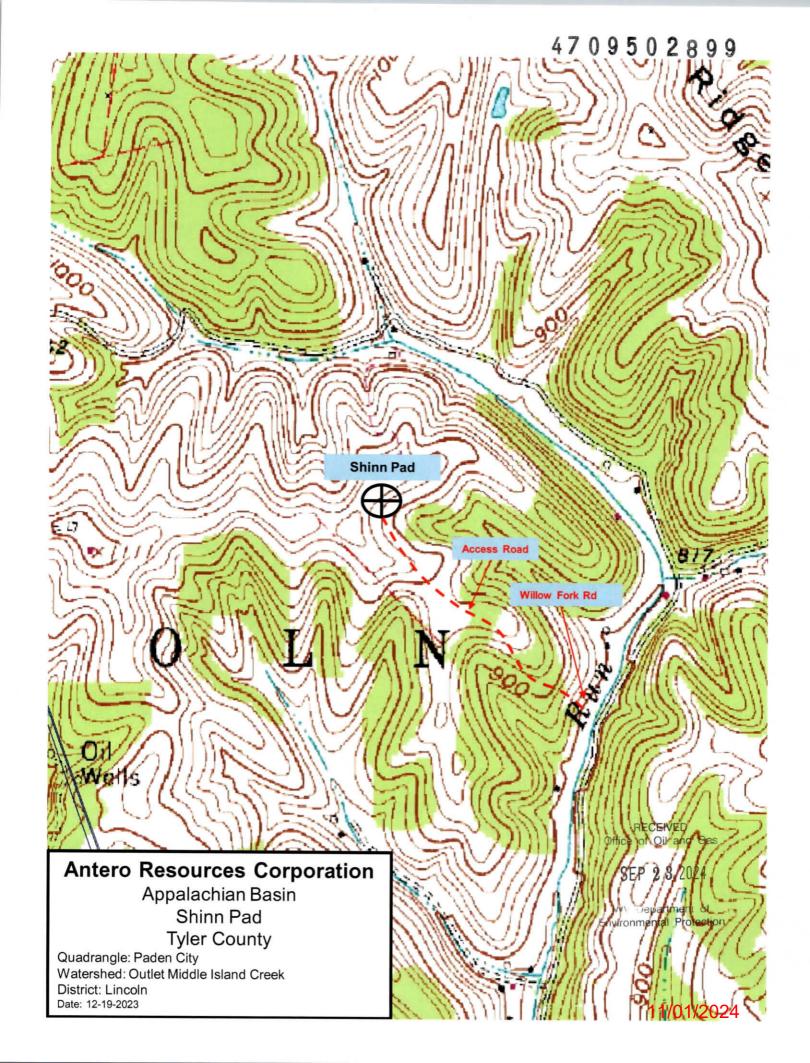
Entrance - Lat 39.548502/Long-80.941939 (NAD83)

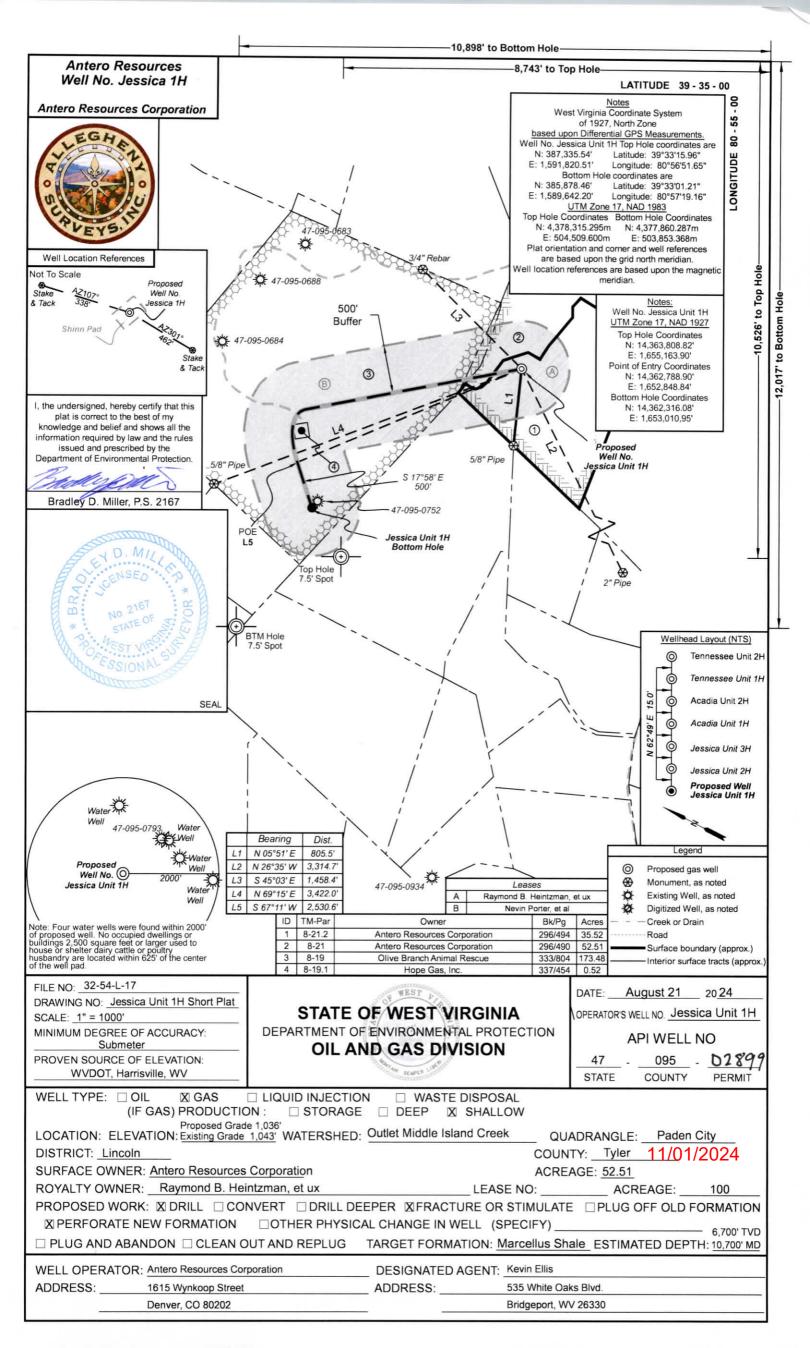
Pad Center - Lat 39.554034/Long-80.947799 (NAD83)

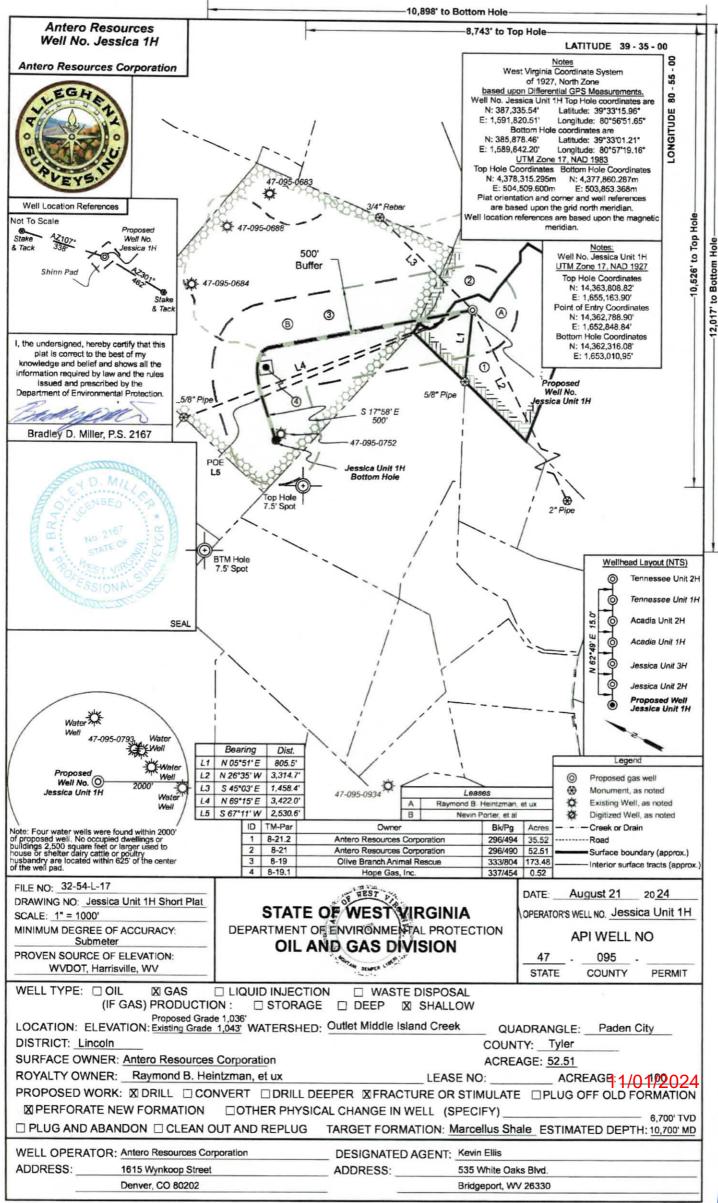
**Driving Directions:** 

From WV-18, turn north onto CO. 18/2 and travel for 0.9 miles. The Shinn Lease Road is on the left.

EMERGENCY (24 HOUR) CONTACT 1-800-878-1373







Jan July

Operator's Well Number

Jessica Unit 1H

## INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
A: Raymond B. Heintzman, et ux Lease			
Raymond B. Heintzman, et ux	McCombs Conrad & Barrett	1/8	207/136
McCombs Conrad & Barrett	Appalachian Exploration & Development, Inc	Assignment	207/487
Appalachian Exploration & Development, Inc	The Carter-Jones Lumber Company	Assignment	233/563
The Carter-Jones Lumber Company	Applied Mechanics Corporation	Assignment	258/132
Applied Mechanics Corporation	Triad Hunter, LLC	Assignment	385/566
Triad Hunter, LLC	Antero Resources Corporation	Assignment	496/776

\*\*Pooling/Unitization – Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks to pool certain owners in this tract

Office of Oil and Gas

SEP 2 3 2024

<sup>\*</sup>Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

<sup>\*</sup>Cotenancy Utilization - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

WW-6A1 (5/13)

Operator's Well No. Jessica Unit 11	Operator's	Well No.	Jessica Unit 1H
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#### INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that —

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

	Nevin Porter, et al	Antero Resources Corporation	1/8+	464/467
B: Nevin Porter, et al Lease				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Lease Name or				

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### Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

WV Department of Environmental Protection

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:	Antero Resources Corporation			
By:	Tim Rady			
Its:	Senior Vice President of Land			

Page 1 of 1



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

September 19, 2024

West Virginia Department of Environmental Protection Chief, Office of Oil and Gas Attn: Mr. James Martin 601 57th Street SE Charleston, WV 25304

RE:

Jessica Unit 1H

Quadrangle: Paden City 7.5'

Tyler County/Lincoln District, West Virginia

Mr. Martin:

Antero Resources Corporation (Antero) is submitting the following application for a new well work permit for the Jessica Unit 1H horizontal shallow well. As an authorized representative, I certify that Antero has the right to extract, produce or market the oil or gas for all leases through which the Jessica Unit 1H horizontal lateral will drill through including any and all roads crossed under as identified on the attached survey plat.

Sincerely,

Tyler Adams Senior Landman

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SEP 23 2024

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

Date of Notic	ce Certification: 09/19/2024	API No. 4	7- 095 -		
			Well No. Jess	sica Unit 1H	
		Well Pad I	Name: Shinn P	Pad	
Notice has b	een given:		-		
Pursuant to th	e provisions in West Virginia Code §	22-6A, the Operator has provided the rea	quired parties v	with the Notice Forms listed	
below for the	tract of land as follows:				
State:	West Virginia	UTM NAD 83 Easting:	504509.60m		
County: District:	Tyler	Northing:	4378315.29m	_ <del></del>	
Quadrangle:	Lincoln  Redon City	Public Road Access:	Badger Run Rd		
Watershed:	Paden City Outlet Middle Island Creek	Generally used farm name:	Antero Resource	es Corporation	
watersneu.	Outlet Middle Island Creek	<del> </del>			
Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ter of this article have been completed by the applicant.					
Pursuant to V that the Oper	West Virginia Code § 22-6A, the Operator has properly served the required	rator has attached proof to this Notice C parties with the following:	ertification		
*PLEASE CHE	CK ALL THAT APPLY			OOG OFFICE USE ONLY	
│ □ 1. NOT		NOTICE NOT REQUIRED BECAUSEISMIC ACTIVITY WAS CONDUCTOR		RECEIVED/ NOT REQUIRED	
☐ 2. NOT	TICE OF ENTRY FOR PLAT SURVE	EY or 🔳 NO PLAT SURVEY WAS CO	ONDUCTED	☐ RECEIVED	
■ 3. NOT		☐ NOTICE NOT REQUIRED BECAUNOTICE OF ENTRY FOR PLAT SURVIVAS CONDUCTED or		RECEIVED/ NOT REQUIRED	
		WRITTEN WAIVER BY SURFACE (PLEASE ATTACH)  RECEIVED  RECEIVED (PLEASE ATTACH)			
■ 4. NOT	ICE OF PLANNED OPERATION	Office of On arra		☑ RECEIVED	
■ 5. PUB	LIC NOTICE	SEP 23 202	_4	☑ RECEIVED	
■ 6. NOT	ICE OF APPLICATION	, <sub>v.</sub> ,eparmen Environmental Pri	otection ot	RECEIVED	

#### Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

#### Certification of Notice is hereby given:

THEREFORE, I	Jon McEvers , hav	e read an	nd understand	the notice requirements within West Virginia Code § 22-		
6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified						
above, to the re	above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or					
signature confirm	mation. I certify under penalty of law	that I hav	ve personally	examined and am familiar with the information submitted		
in this Notice (	Certification and all attachments, and	d that ba	sed on my i	nquiry of those individuals immediately responsible for		
obtaining the int	formation, I believe that the information	n is true	. accurate and	complete. I am aware that there are significant penalties		
for submitting fa	alse information, including the possibil	ity of fin	e and impriso	nment.		
			P			
Well Operator:	Antero Resources Corporation		Address:	1615 Wynkoop Street		
By:	Jon McEvers Jon MCEvers	ren	L	Denver, CO 80202		
Its:	Senior VP of Operations		Facsimile:	303-357-7373		
Telephone:	303-357-6799		Email:	cmarvel@anteroresources.com		
				2		
	NOTARY SEAL	Subscr	ribed and swo	rn before me this 20 day of Sep kmbr 2024		
S	TEFAN GASPAR		2.12	an Gaspa- Notary Public		
8	NOTARY PUBLIC		3 HET	Notary Public		
NO NO	TARY ID 20224043669					
MY COMMIS	SION EXPIRES NOVEMBER 15, 2026	My Co	mmission Ex	pires November 15, 2026		

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at <a href="deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

WW-6A (9-13) 47095 0 2 8 9 9 API NO. 47-095

API NO. 47- 095

OPERATOR WELL NO. Jessica Unit 1H
Well Pad Name: Shinn Pad

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Not	ice Time Requirem	ent: notice shall be provi	ided no later th	an the filing date of permit application.	
	e of Notice: <u>9/20/2024</u> ice of:	_ Date Permit Applica	tion Filed: 9/2	0/2024	
<b>7</b>	PERMIT FOR AN			PROVAL FOR THE AN IMPOUNDMENT OR PIT	
Deli	very method pursu	ant to West Virginia Co	ode § 22-6A-1	0(b)	
	PERSONAL SERVICE	REGISTERED MAIL		HOD OF DELIVERY THAT REQUIRES A EPT OR SIGNATURE CONFIRMATION	
the solid and described and de	nent control plan requestion of the tract on and gas leasehold being ribed in the erosion as ator or lessee, in the expectation of the surface to work, if the surface to bundment or pit as desawater well, spring of the water for consumposed well work activitient (b) of this section (b) of this section of the sheriff requision of this article to the R. § 35-8-5.7.a requirement of the traction of the section (b) of this article to the R. § 35-8-5.7.a requirement of the sheriff requirement of the section of this article to the section of this article to the section of this article to the section of the	which the well is or is prog g developed by the proposed and sediment control plan sevent the tract of land on we owners of record of the surfact is to be used for the place for water supply source location by humans or domest ty is to take place. (c)(1) It on hold interests in the land ired to be maintained purs the contrary, notice to a light which we have the contrary, notice to a light which we have the open	his article, and posed to be locked well work, in the well pursus which the well purface tract or tracement, constitution article; (5) attend within one of the animals; and f more than through, the application and to section en holder is no ator shall also passed with the section and the section and the section and the section and the section are shall also passed with the section and the section and the section and the section and the section are shall also passed with the section and the section and the section and the section are shall also passed with the section and the section are shall also passed with the section are shall also passed with the section and the section are shall also passed with the section are section.	or signature confirmation, copies of the application, the well plat to each of the following persons: (1) The sated; (2) The owners of record of the surface tract or if the surface tract is to be used for roads or other land ant to subsection (c), section seven of this article; (3) proposed to be drilled is located [sic] is known to be a facts overlying the oil and gas leasehold being development, enlargement, alteration, repair, removal or at Any surface owner or water purveyor who is known to thousand five hundred feet of the center of the well at (6) The operator of any natural gas storage field with the tenants in common or other co-owners of interests and may serve the documents required upon the person eight, article one, chapter eleven-a of this code. (2) Not notice to a landowner, unless the lien holder is the landowner will be sufficiently approvided in section 15 of this rule.	e owners of record of tracts overlying the disturbance as The coal owner, underlain by one or ped by the proposed candonment of any o the applicant to pad which is used to hin which the described in described in the Notwithstanding any andowner, W. Va.
3 SU	RFACE OWNER(s	<b>)</b>	S Plan Notice	<ul><li></li></ul>	
	e: Clayton Warren & Delph	<del></del>	-	Name: NO DECLARATIONS ON RECORD WITH COUNTY	RECEIVED
	ess: 1765 Badger Run Resville, WV 26175		_	Address:	HECEIVED Gas
Vam		<u> </u>	_	□ COAL OPERATOR	SEP 23 2024
			_	Name: NO DECLARATIONS ON RECORD WITH COUNTY	SEP 20 Est
			_	Address:	– to memnayer –
		(Road and/or Other Dis			- Protection
Vam	e:	<del></del>	=	WATER PURVEYOR(s)/OWNER(s) OF WATER WELL SPRING OR OTHER WATER SUPPLY SOURCE	L,
Addr				<b>\</b>	
Jam				Name: PLEASE SEE ATTACHMENT	_
۱ddr	ess:		-	Address:	_
				OPERATOR OF ANY NATURAL GAS STO	 RAGE FIELD
		(Impoundments or Pits)		Name:	
Vam:	e:			Address:	_ _
Addr	ess:		_	<del></del>	_
	·		-	*Please attach additional forms if necessary	

WW-6A (8-13) API NO: 47-09 9 5 0 2 8 9 9

OPERATOR WELL NO. Jessica Unit 1H

Well Pad Name: Shinn Pad

#### Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

#### This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dtlep.wt.Qdv.and-Gas/pages/default.aspx">www.dtlep.wt.Qdv.and-Gas/pages/default.aspx</a>.

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#### **Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within sexon hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A (8-13) 4709502899

API NO. 47-<u>095</u>

OPERATOR WELL NO, Jessica Unit 1H

Well Pad Name: Shinn Pad

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

#### Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

#### Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

#### Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

#### Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Office of Oil and Gas

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57<sup>th</sup> St. SE
Charleston, WV 25304
(304) 926-0450

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ுவராent of Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WW-6A (8-13) 4709502899

OPERATOR WELL NO. Jessica Unit 1H

Well Pad Name: Shinn Pad

#### Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

#### **Comment Requirements**

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

#### **Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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onmental Protection

WW-6A (8-13)	API NO. 47- 095 9 5 0 2 8 9 9 OPERATOR WELL NO. Jessica Unit 1H
Notice is hereby given by:	Well Pad Name: Shinn Pad
Well Operator: Antero Resources Corporation	Address: 1615 Wynkoop Street
Telephone: (303) 357-7373	Denver, CO 80202
Email: cmarvel@anteroresources.com	Facsimile: 303-357-7315

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

STEFAN GASPAR
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20224043669
MY COMMISSION EXPIRES NOVEMBER 15, 2026

Subscribed and sworn before me this 20 day of September, 2024

Stefan Gas par Notary Public

My Commission Expires Darmber 15, 2026

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Office of Oil and Gas

SEP 2 3 2024

avironmental Protection

### WW-6A ATTACHMENT

#### **NOTICE OF APPLICATION**

## WATER PURVEYOR(s)/OWNER(s) OF WATER WELL, SPRING OR OTHER WATER SUPPLY SOURCE:

#### **WATER SPIGOT:**

Camille Mace

129 Elm Ln

Sistersville, WV 26175

#### **WATER WELL:**

April D. & Adam N. Wayne

1567 Badger Run Rd

Sistersville, WV 26175

#### **WELL HOUSE:**

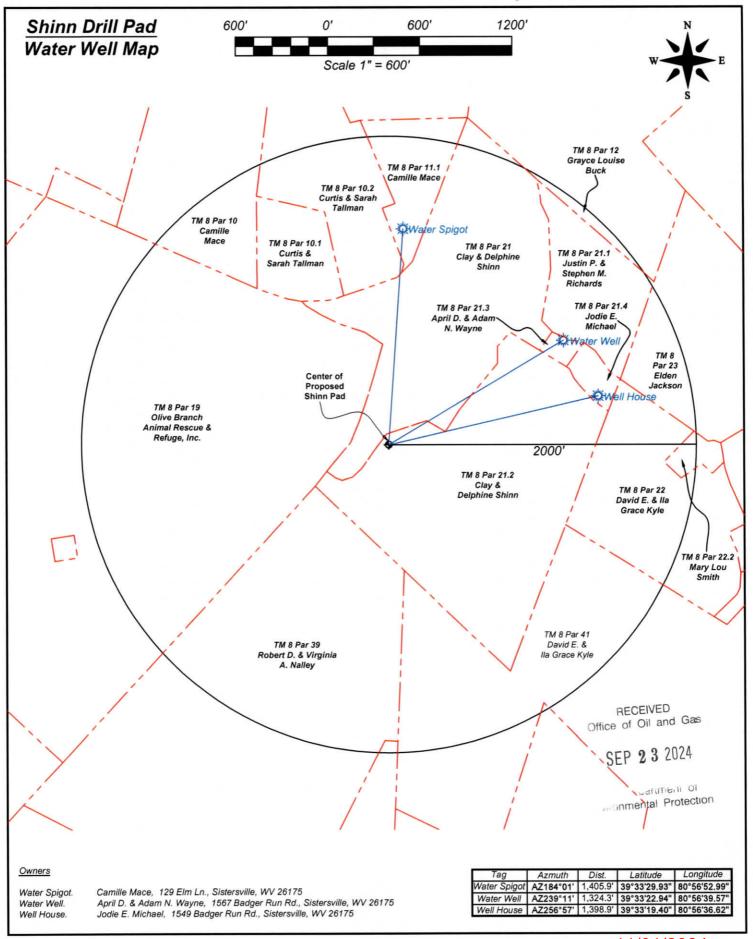
Jodie E. Michael

1549 Badger Run Rd

Sistersville, WV 26175

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Office of Oil and Gas

SEP 23 2024



# STATE OF WEST VIRGINIA 4 7 0 9 5 0 2 8 9 9 DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time R Date of Notice	equirement: Notice shall be provided at least 05/03/2024 Date Permit A	TEN (10) days prior to filing a application Filed: 09/20/2024	permit application.
Delivery metho	od pursuant to West Virginia Code § 22-6A	-16(b)	
☐ HAND DELIVER	CERTIFIED MAIL Y RETURN RECEIPT REQUES	TED	
drilling a horizor of this subsection may and if available	Va. Code § 22-6A-16(b), at least ten days pried or hand delivery, give the surface owner no ontal well: <i>Provided</i> , That notice given pursuon as of the date the notice was provided to the be waived in writing by the surface owner. To facsimile number and electronic mail address.	tice of its intent to enter upon to ant to subsection (a), section to e surface owner: <i>Provided, how</i> the notice, if required, shall include sof the operator and the operator	he surface owner's land for the purpose of en of this article satisfies the requirements wever, That the notice requirements of this lude the name, address, telephone number, or's authorized representative.
	by provided to the SURFACE OWNER  ren & Delphine Elizabeth Shinn		Office of Oil and Gas
Address: 1765 Ba	adger Run Road	Name:Address:	SEP 2 3 2024
State: V. County:	by given: st Virginia Code § 22-6A-16(b), notice is her er's land for the purpose of drilling a horizont Vest Virginia Tyler Lincoln	eby given that the undersigned al well on the tract of land as for UTM NAD 83  Easting: Northing: Public Road Access:	well operator has an intent to enter upon bllows:  504509.60m  4378315.29m  Badger Run Road
	Paden City 7.5'	Generally used farm name:	Antero Resources Corporation
	Outlet Middle Island Creek	Generally used farili fiame.	Antero Resources Corporation
facsimile numb	hall Include: est Virginia Code § 22-6A-16(b), this notice er and electronic mail address of the operat ontal drilling may be obtained from the Secre 7 <sup>th</sup> Street, SE, Charleston, WV 25304 (304-9)	or and the operator's authorized	ed representative. Additional information
Notice is here	by given by:		
	Antero Resources Corporation	Authorized Representative:	Mallory Turco
Address:	1615 Wynkoop St.	Address:	1615 Wynkoop St.
	Denver, CO 80202		Denver, CO 80202
Telephone:	303-357-7182	Telephone:	303-357-7182
Email:	mturco@anteroresources.com	Email:	mturco@anteroresources.com
Facsimile:	303-357-7315	Facsimile:	303-357-7315

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

WW-6A5 (1/12)

#### 4709502899 STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

Notice Time Re- Date of Notice:	quirement: notice shall be provided no late on the op/20/2024 Date Permit Application			application.
Delivery metho	d pursuant to West Virginia Code § 22-6.	A-16(c)		
CERTIFIE RETURN		ND ELIVERY		
return receipt red the planned ope required to be pr drilling of a hor damages to the s	Va. Code § 22-6A-16(c), no later than the quested or hand delivery, give the surface or ration. The notice required by this subservoided by subsection (b), section ten of this izontal well; and (3) A proposed surface furface affected by oil and gas operations to required by this section shall be given to the	wher whose land ction shall includes article to a surfa- use and compensa- the extent the da	will be used for le: (1) A copy of ace owner whose ation agreement mages are comp	r the drilling of a horizontal well notice of of this code section; (2) The information e land will be used in conjunction with the t containing an offer of compensation for pensable under article six-b of this chapter.
	y provided to the SURFACE OWNER(s)			SEP <b>2 3</b> 2024
Name: Clayton Warr	sted in the records of the sheriff at the time ren & Delphine Elizabeth Shinn			<b>0</b>
Address: 1765 Bac				ωΔV Department of
Sisterville, WV 26175				Environmental Protection
operation on the State: w	t Virginia Code § 22-6A-16(c), notice is he surface owner's land for the purpose of dr	illing a horizontal UTM NAD 8	l well on the trac	ct of land as follows: 504509.60m 4378315.29m
	ncoln	Public Road		Badger Run Rd
	aden City	Generally use	ed farm name:	Antero Resources Corporation
_	utlet Middle Island Creek			
to be provided horizontal well; surface affected information rela	st Virginia Code § 22-6A-16(c), this notice by W. Va. Code § 22-6A-10(b) to a surfa and (3) A proposed surface use and compe by oil and gas operations to the extent the sted to horizontal drilling may be obtained to acted at 601 57th Street, SE, Charlesto	ace owner whose ensation agreement e damages are co I from the Secret	e land will be un nt containing an empensable und ary, at the WV	ased in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection
Well Operator:	Antero Resources Corporation	Address:	1615 Wynkoop Stree	et
Telephone:	303-357-7373	_	Denver, CO 80202	-
Email:	cmarvel@anteroresources.com	Facsimile:	303-357-7310	
Oil and Gas Pr				

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



#### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

### **Division of Highways**

Office of the District Engineer/Manager
District Four
Post Office Box 4220 · Clarksburg, West Virginia 26302 · (304) 842-1500

Alanna J. Keller, P.E.
Deputy Secretary of Transportation
Deputy Commissioner of Highways

August 26, 2024

Jimmy Wriston, P. E. Secretary of Transportation Commissioner of Highways

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57<sup>th</sup> Street, SE Charleston, WV 25304

Subject: DOH Permit for the Shinn Well Pad, Tyler County Jessica Unit 1H Well Site RECEIVED
Office of Oil and Gas

SEP 2 3 2024

Wir Department of Environmental Protection

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2023-0570 which has been issued to Antero Resources Corporation for access to the State Road for a well site located off Tyler County Route 18/2 SLS MP 0.85.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Lacy D. Pratt

Central Office O&G Coordinator

Lacy D. Pratt

Cc: Carly Marvel

**Antero Resources Corporation** 

OM, D-6

File

Subdivision 3.3.e A listing of the anticipated additives that may be used in the water used for fracturing or stimulating the well. (A listing of the additives that were actually used in the fracturing or stimulating of the well shall be submitted as part of the completion report required by W. Va. Code 22-6-22.)

#### FRACTURING/STIMULATING INTERVAL

	Additive	Chemical Abstract Service Number (CAS #)
1.	Fresh Water	7732-18-5
2.	2 Phosphobutane 1,2,4 tricarboxylic acid	3 <b>7971-36-1</b>
3.	Ammonium Persuifate	7727-54-0
4.	Anionic ∞polymer	Proprietary
5.	Anionic polymer	Proprietary
6.	BTEX Free Hydrotreated Heavy Naphtha	64742-48-9
7.	Cellulase enzyme	(Proprietary)
8.	Demulsifier Base	(Proprietary)
9.	Ethoxylated alcohol blend	Mixtur <del>e</del>
	Ethoxylated Nonylphenol	68412 <del>-</del> 54 <del>-4</del>
	Ethoxylated oleylamine	26635-93-8
	Ethylene Glycol	107-21-1
	Glycol Ethers	111-76-2
	Guar gum	9000-30-0
	Hydrogen Chloride	7647-01-0
	Hydrotreated light distillates, non-aromatic, BTEX free	64742-47-8
	Isopropyl alcohol	67-63-0
	Liquid, 2,2-dibromo-3- nitrilopropionamide	10222-01-2
	Microparticle	Proprietary
	Petroleum Distillates (BTEX Below Detect)	64742-47-8
	Polyacrylamide	57-55-6
	Propargyl Alcohol	107-19-7
	Propylene Glycol	57-55-6
	Quartz	14808-60-7
	Sillica crystalline quartz	7631-86-9
	Sodium Chloride	7647-14-5
	Sodium Hydroxide	1310-73-2
	Sugar	57-50-1
	Surfactant	68439-51-0
	Suspending agent (solid)	14808-60-7
	Tar bases, quinolone derivs, benzyl chloride-quarternized	72480-70-7
	Solvent Naptha, petroleum, heavy allph	64742-96-7
	Soybean Oil, Me ester	67784-80-9
	Copolymer of Maleic and Acrylic Acid	52255-49-9
	DETA Phosphonate	15827-60-8
	Hexamythylene Triamine Penta	34690-00-1
	Phosphino Carboxylic acid polymer	71050-62-9
	Hexamethylene diamine penta	23605-74-5
	2-Propenoic acid, polymer with 2 propenamide	9003-06-9
	Hexamethylene diamine penta (methylene phosphonic ac	-
	Diethylene Glycol	111-46-6
	Methenamine	100-97-0
	Polyethylene polyamine	68603-67-8
	Coco amine	61791-14-8 38173 01 7
43.	2-Propyn-1-olcompound with methyloxirane	38172-91-7

OPERATOR:	Antero Resources Corp.	WELL NO: Jessica Unit 1H		
PAD NAME: S	Shinn Pad			
REVIEWED BY: Mallory Turco		SIGNATURE: May	Tyr	
WELL RESTRICTIONS CHECKLIST  RECEIVED Office of Oil and General SEP 2 3 2024				
HORIZONTAL 6A WELL		6A WELL		
			WV Department of Environmental Protection	
Well Restrictions				
At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR				
DEP Waiver and Permit Conditions				
At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR				
	DEP Waiver and Permit Conditions			
	At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR			
	DEP Waiver and Permit Condition	ns		
	At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR			
Surface Owner Waiver and Recorded with County Clerk, OR				
DEP Variance and Permit Conditions				
At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR				
Surface Owner Waiver and Recorded with County Clerk, OR				
	DEP Variance and Permit Condition	ions		
At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR				
Surface Owner Waiver and Recorded with County Clerk, OR				
Γ	DEP Variance and Permit Conditi	ions		