

#### 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

Friday, January 21, 2022 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET DENVER, CO 80202

Re: Permit approval for CLUTTER 1H

47-095-02776-00-00

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.

ED III

lames A. Martin

Operator's Well Number: CLUTTER 1H

Farm Name: ELDON J & RUTH A HELMAN

U.S. WELL NUMBER: 47-095-02776-00-00

Horizontal 6A New Drill Date Issued: 1/21/2022

#### PERMIT CONDITIONS

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.

#### CONDITIONS

- 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. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. 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.

### **PERMIT CONDITIONS**

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, consistent 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.

API NO. 47-095 0 2 7 7 6

OPERATOR WELL NO. Clutter Unit 1H

Well Pad Name: Eldon Pad

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

							/
1) Well Operat	or: Antero I	Resources	Corpora	494507062	095 - Tyler	Ellsworth	Middlebourne 7.5'
, es es se per es				Operator ID	County	District	Quadrangle
) Operator's V	Well Number:	Clutter Un	it 1H	Well P	ad Name: Eldor	Pad /	
) Farm Name/	Surface Own	ner: Eldon J.	& Ruth A F	lelman Public R	oad Access: CR	10/1	
) Elevation, c	urrent ground	1: 88 <b>D</b> /	El	evation, propose	d post-construct	ion:	
5) Well Type		x	Oil _	Un	derground Stora	ge	
	Other						
	(b)If Gas	Shallow	X	Deep			
		Horizontal	X				
<ul><li>Existing Pac</li></ul>	d: Yes or No	Yes			_		
				cipated Thickness			
Marcellus Sh	hale: 6500' TV	D, Anticipate	d Thickne	ess- 55 feet, Asso	ciated Pressure-	2850#	
3) Proposed To	otal Vertical I	Depth: 650	0' TVD	1			
) Formation a			Marcellu	s			
(0) Proposed	Total Measure	ed Depth:	6500' '	/			
1) Proposed I			0' *Ope	en to modification	n at a later date	e _	
12) Approxima			epths:	156' /			
13) Method to				47095009120000 Offset	well records. Depths hav	e been adjusted	according to surface elevations
14) Approxima							
15) Approxim				icipated			
16) Approxim	ate Depth to I	Possible Vo	id (coal m	ine, karst, other)	: None Anticipa	ated	
17) Does Prop directly overly				Yes	N	o <u>X</u>	
(a) If Yes, pr	rovide Mine I	nfo: Name	):				Office of Chi and Gas
, y ==		Deptl					Office of
		Seam					
		Owne	_				W Departies Pro
		C TITI	-				EUNILOTITI

API NO. 47- 095 - 02776

OPERATOR WELL NO. Clutter Unit 1H Well Pad Name: Eldon Pad

18)

### CASING AND TUBING PROGRAM

ТҮРЕ	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	79#	80'	80' _	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	300'	300' -	CTS, 313Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	6500'	6500' -	CTS, 710 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							1

Bugan Hum 1-5-22

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"	0.375"	2250	50	Class A	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	14,360	2500	Class G/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	

API NO. 47- 095 - 0 2776

OPERATOR WELL NO. Clutter Unit 1H Well Pad Name: El don Pad

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

Drill a new horizontal shallow well into the Marcellus Shale.

\*Antero will be air drilling the fresh water string which makes it difficult to determine when fresh water is encountered. Therefore, we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

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): 35.04 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 12.65 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 cement.

Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake Intermediate: Class A 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.

<sup>\*</sup>Note: Attach additional sheets as needed.

API Number 47 - 095

02776

Operator's Well No. Clutter 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 Middlebourne 7.5
Do you anticipate using more than 5,000 bbls of water to co	omplete the proposed well work? Yes V No
Will a pit be used? Yes No V	
If so, please describe anticipated pit waste: No pit w	will be used at this site (Dnilling 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 V If so, what ml.? N/A
Proposed Disposal Method For Treated Pit Wastes	S:
Land Application	
	ermit Number_ *UIC Permit # will be provided on Form WR-34
	rmitted well locations when applicable. API# will be provided on Form WR-34
Off Site Disposal (Supply form Other (Explain	WW-9 for disposal location)(Meadowfill Landfill Permit #SWF-1032-98)  Northwestern Landfill Permit #SWF-1025/
Other (Explain	WV0109410
Will closed loop system be used? If so, describe: Yes, fluid	ds stored in tanks, cuttings removed offsite and taken to landfill.
	zontal)? Air, freshwater, oil based, etc. Surface - Air/Freshwater, Intermediate - Dust/ Suff Foam, Production - Water Based Muld or Synthetic Based Muld
-If oil based, what type? Synthetic, petroleum, etc	Synthetic
Additives to be used in drilling medium? Please See Attach	ment
Drill cuttings disposal method? Leave in pit, landfill, remo	oved offsite, etc. Drill cuttings stored in tanks, removed offsite and taken to landfill.
-If left in pit and plan to solidify what medium wil	be used? (cement, lime, sawdust) N/A
	ill Landfill (Permit #SWF-1032-98), Northwestern Landfill (Permit #SWF-1025/WV0109410)
	nd Gas of any load of drill cuttings or associated waste rejected at any ided within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the Wes provisions of the permit are enforceable by law. Violation law or regulation can lead to enforcement action.  I certify under penalty of law that I have person application form and all attachments thereto and that, but the content of the content o	RECEIVED Gas
Company Official (Typed Name) Gretchen Kohler	DEC 20 COL
Company Official Title Director, Environmental and Regulat	tory Compliance  W Department of  Environmental Protection
Subscribed and arrang before the 150	0
Subscribed and sworn before me this 15 day o	
My commission expires 27 Ag6	Notary Public DIANE BLAIR NOTARY PUBLIC STATE OF COLORADO NOTARY 16 19 39 10 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Proposed Revegetation Treatme	ent: Acres Disturbed 35.0	4 acres Prevegetation	n pH	
Lime 2-4	_ Tons/acre or to correct to	6.5		
Fertilizer type Hay or Stra	w or Wood Fiber (will be used where needed)			
Fertilizer amount 500		lbs/acre		
Mulch 2-3	Ton	s/acre		
		0.83 acres) + Well Pad (12.65 acres) + Exces	s/Topsoil Material Stockpiles (9.07 acre	
- 53.04 Total Affected Acres	<u>s</u>	eed Mixtures		
Temp	porary	Per	rmanent	
Seed Type	lbs/acre	Seed Type	lbs/acre	
Annual Ryegrass	40	Crownvetch	10-15	
Field Bromegrass	40	Tall Fescue	30	
See attached Table IV-3 for additional	l see type, (Page 33 Eldon Pad Desig	See attached Table IV-4 for addition	nal seed type (Page 33 Eldon Pad Desig	
		*or type of grass seed requested by surface owner		
provided). If water from the pit acreage, of the land application	nd proposed area for land app will be land applied, include area.	*or type of grass seed required to the seed of grass seed required to the seed of the seed	cluding this info have been	
Attach: Maps(s) of road, location, pit an provided). If water from the pit	nd proposed area for land app will be land applied, include area.	ication (unless engineered plans in	cluding this info have been	
Attach: Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application Photocopied section of involved	nd proposed area for land app will be land applied, include area. 17.5' topographic sheet.	ication (unless engineered plans in	cluding this info have been	
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Attach: Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application Photocopied section of involved Plan Approved by:  Buys	nd proposed area for land app will be land applied, include area. 17.5' topographic sheet.	ication (unless engineered plans in	cluding this info have been	
Attach: Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application Photocopied section of involved Plan Approved by:  Buys	nd proposed area for land app will be land applied, include area. 17.5' topographic sheet.	ication (unless engineered plans in	cluding this info have been	
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### 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

Office of Contract and Gas

Of

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** 

Office of Oil and Gas

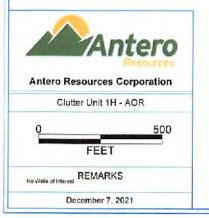
DEC 20 2021

WV Department of Environmental Protection



## Clutter Unit 1H





Office of Oil and Gas

DEC 20 2021

WN Depaitment of Environmental Protection

01/21/2022



### 911 Address 3830 Next Road Sistersville, WV 26175

Bugan term

# Well Site Safety Plan Antero Resources

Well Name: Eldon Unit 5H, Clutter Unit 1H

Pad Location: Eldon Pad

Tyler County/Ellsworth District

### **GPS Coordinates:**

Entrance - Lat 39°29′58.9″/Long -80°57′13.7″ (NAD83)

Pad Center - Lat 39°29′36.6″/Long -80°57′23.0″ (NAD83)

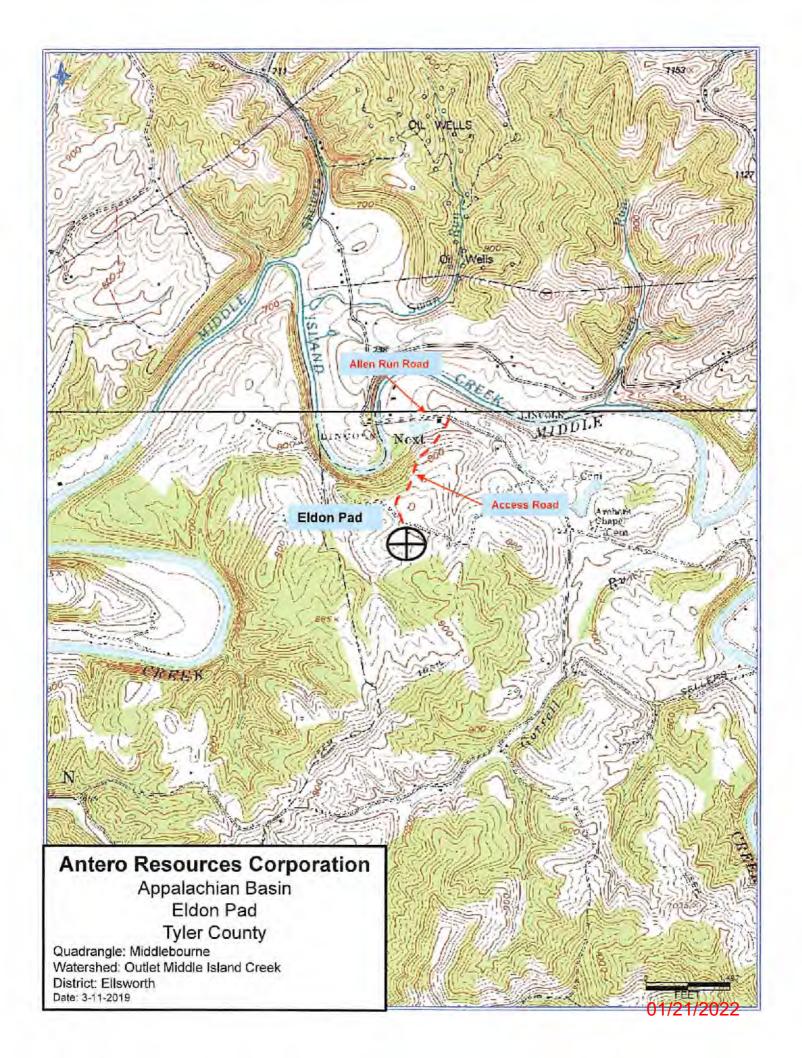
### **Driving Directions:**

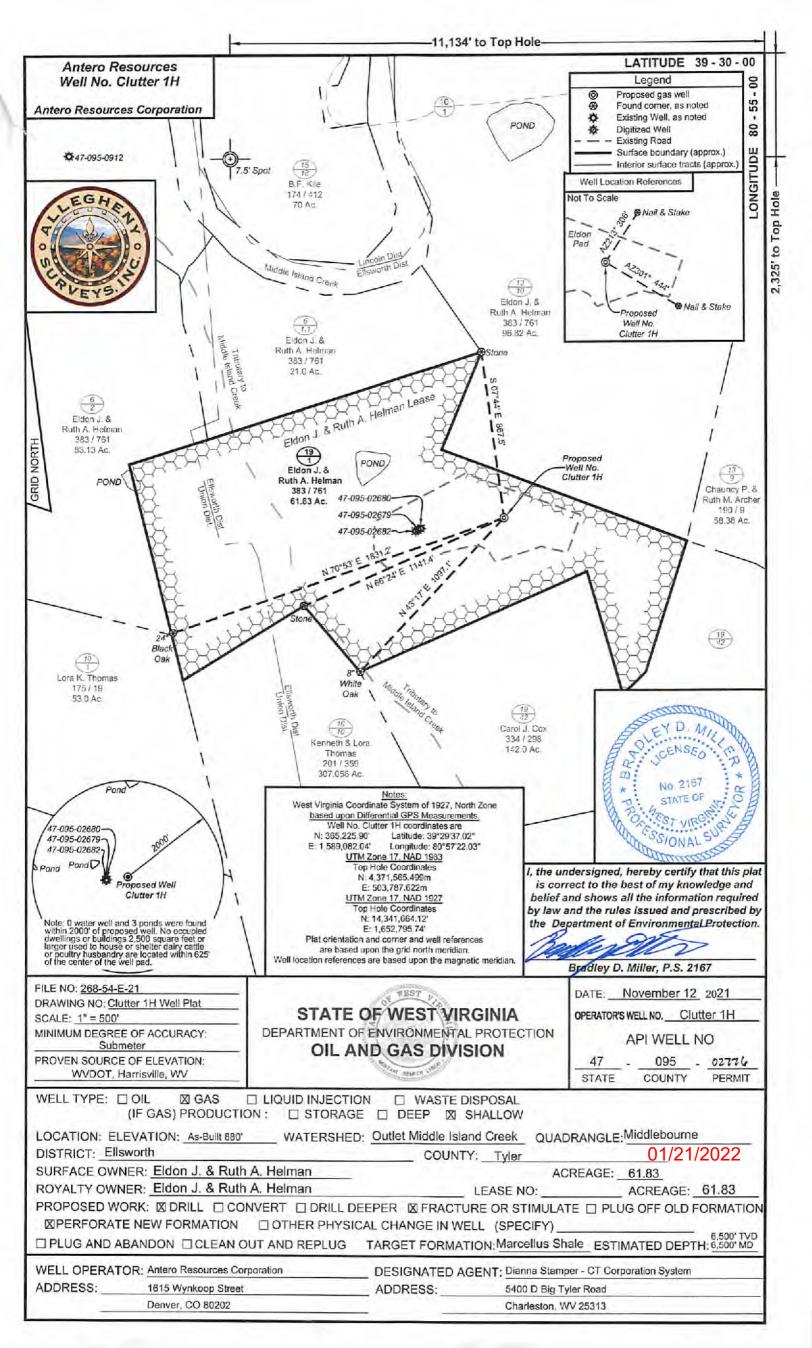
From the Intersection of Broad St and Main St in the town of Middlebourne, head northeast on WV-18 N/ Main St toward Wetzel Ave for 0.7 miles. Turn left onto Co Rd 2/4 for 164 ft. Continue onto Sellers Rd for 400 ft. Turn left to stay on Sellers Rd for 3.4 miles. Turn right onto Allen Run Rd/Pleasant Ridge Rd for 1.1 miles. Access road will be on your left.

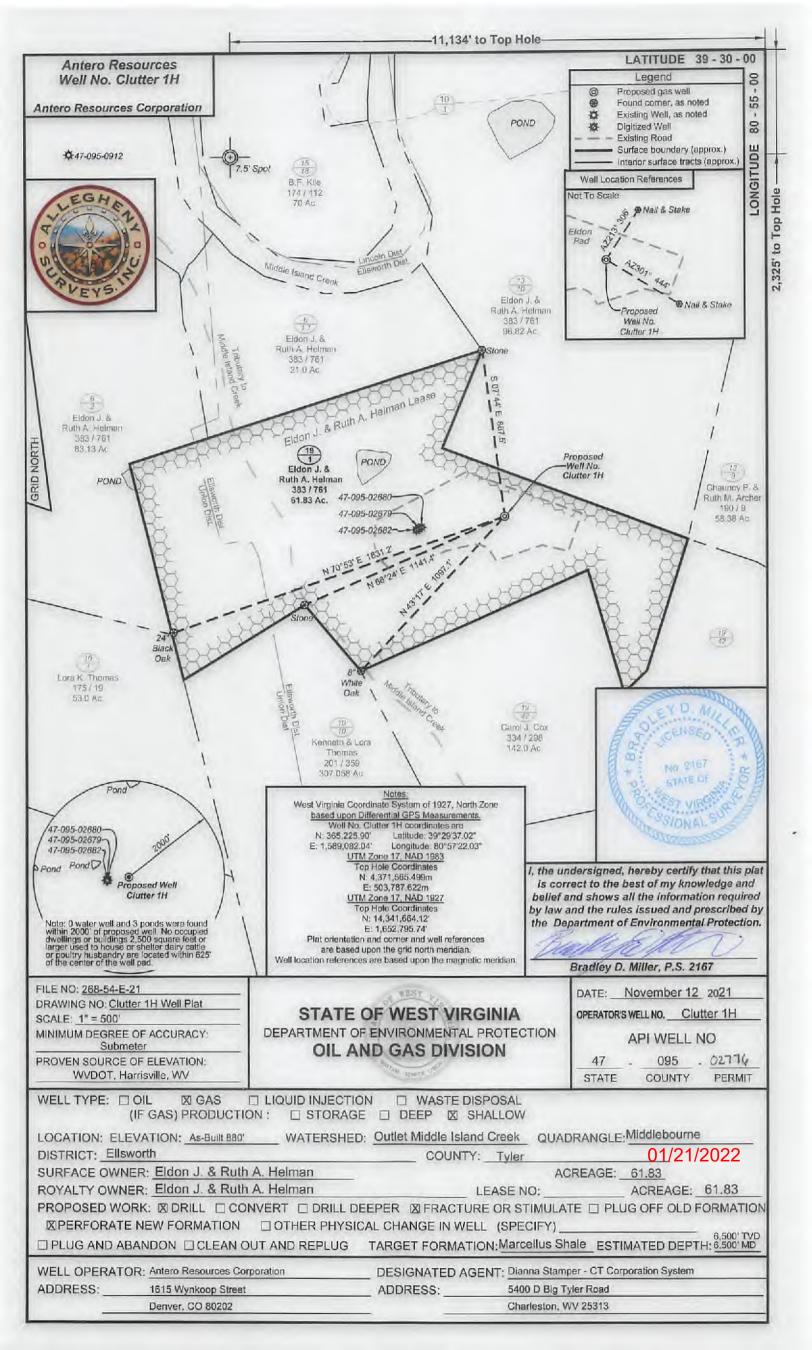
### **Alternate Route:**

From the United States Postal Service in Sistersville, head southeast on Elizabeth St toward Chelsea St for 194 ft. Elizabeth St turns right and becomes WV-2 S/Chelsea St for 1.0 mile. Continue straight onto WV-18 S for 3.0 miles. Turn right onto Co Rd 10 for 1.7 miles. Continue onto Next Rd/Shriver Run Rd for 1.6 miles. Turn right onto Allen Run Rd/Next Rd/Pleasant Ridge Rd for 0.5 mile. Turn right for 0.4 mile. Access road will be on your left.

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







Operator's Well Number

Clutter 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
Eldon J. and Ruth A. Helman Lease Eldon J. and Ruth A. Helman	Antero Resources Corporation	1/8+	0427/0610

Office of Oil and Gas

WV Department of Environmental Protection

W	W	-6/	41
(5	/13	)	

Operator's Well No.	Clutter 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)

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Lease Name or				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Eldon J. & Ruth A. Helman Lease	-		<u> </u>	
	Eldon J. & Ruth A. Helman	<b>Antero Resources Corporation</b>	1/8+	0427/0610

<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.

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

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 Gas Oil and Gas

Well Operator:	Antero Reso	urces Corporation	DEC 20 2021
By:	Tim Rady	hun ledy	W Department of Environmental Protection
Its:	VP of Land	(	Environmental Protesta



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

December 5, 2021

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

RE: Clutter Unit 1H - Eldon Pad

Quadrangle: Middlebourne 7.5'

Tyler County/Ellsworth District, West Virginia

#### Mr. Martin:

Antero Resources Corporation (Antero) is submitting the following application for a new well work permit for the Clutter 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 Clutter Unit 1H horizontal lateral will drill through including any and all roads crossed under as identified on the attached survey plat.

Sincerely,

Tyler Adams

Office of Oil and Gas

DEC 20 2021

W/ Department of Environmental Protection

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

		API No. 47-	095 -	
Date of Notic	e Certification: 12/14/2021	Operator's	Well No. Clutter Uni	t 1H
		Well Pad Na	ame: Eldon Pad	
Notice has b	peen given: le provisions in West Virginia Code § 22			the Notice Forms listed
Pursuant to th	e provisions in west virginia code § 22			
	tract of land as follows:	Easting:	503.787.82m	
State:	West Virginia	—— UTM NAD 83 Northing:	4,371,565.50m	
County:	Tyler	Public Road Access:	Pleasant Ridge Road	
District:	Ellsworth	Generally used farm name:	Eldon J. and Ruth A.	Helman
Quadrangle:	Middlebourne 7.5			
Watershed:	Outlet Middle Island Creek  West Virginia Code § 22-6A-7(b), ev	<del></del>		- form as may be
it has provided information of giving the requirements Virginia Coof of this article	West Virginia Code § 22-6A-7(b), every the secretary, shall be verified and shalled the owners of the surface described required by subsections (b) and (c), sect the surface owner notice of entry to survey of subsection (b), section sixteen of the § 22-6A-11(b), the applicant shall tere have been completed by the applicant.	ion sixteen of this article; (ii) that the rever pursuant to subsection (a), section this article were waived in writing by ander proof of and certify to the secretary	quirement was deten of this article the surface own that the notice re	e six-a; or (iii) the notice
that the Op	o West Virginia Code § 22-6A, the Open orator has properly served the required	rator has attached proof to this Notice ( parties with the following:	Certification	OOG OFFICE USE ONLY
*PLEASE C	HECK ALL THAT APPLY			☐ RECEIVED/
☐ 1. N	OTICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECA SEISMIC ACTIVITY WAS CONDUC	CTED	NOT REQUIRED
☐ 2. N	OTICE OF ENTRY FOR PLAT SURV	EY or 🔳 NO PLAT SURVEY WAS (	CONDUCTED	RECEIVED
■ 3. N	OTICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED BECANOTICE OF ENTRY FOR PLAT SUI WAS CONDUCTED or	AUSE RVEY	RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY SURF (PLEASE ATTACH)		
<b>a</b> 4. 1	NOTICE OF PLANNED OPERATION	RE Office o	CEIVED Gas of Oil and Gas	☐ RECEIVED ☐ RECEIVED
<b>■</b> 5. 1	PUBLIC NOTICE	DEC	Department of mental Protection	
<b>a</b> 6. 1	NOTICE OF APPLICATION	Environ Environ	Department of Inmental Protection	RECEIVED

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. 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:

above, to the re signature confir in this Notice ( obtaining the in	at as required under West Virginia C equired parties through personal serv mation. I certify under penalty of law Certification, and all attachments, a	Code § 22-0 vice, by regover that I have and that baction is true,	6A, I have segistered mail the personally sed on my in accurate and	the notice requirements within West Virginia Code § 22- erved the attached copies of the Notice Forms, identified or by any method of delivery that requires a receipt or examined and am familiar with the information submitted equiry of those individuals immediately responsible for decomplete. I am aware that there are significant penalties entering the complete of
Well Operator:	Antero Resources Corporation		Address:	1615 Wynkoop Street
By:	Diana Hoff			Denver, CO 80202
Its:	Sr. VP of Operations		Facsimile:	303-357-7315
Telephone:	304-842-4153		Email:	mstanton@anteroresources.com
MY COI	DIAME BLAIR NOTARY PUBLIC STATE OF COLORADO NOTARY ID 19994011871 MMISSION EXPIRES 27-Apr-2024	-	ribed and swo	orn before me this 14 day of Olo 2021.  Notary Public Repires 27 Apr 2024

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:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

WW-6A (9-13) API NO. 47- 095 OPERATOR WELL NO. Clutter Unit 1H
Well Pad Name: Eldon Pad

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

		CE OF ALTEROTIZES
Notice Time Requirement: n	otice shall be provided no	later than the filing date of permit application.
Date of Notice: 1215/2021 Da		
Notice of:		
PERMIT FOR ANY WELL WORK	CERTIFICATE CONSTRUCTION	OF APPROVAL FOR THE ON OF AN IMPOUNDMENT OR PIT
Delivery method pursuant t	o West Virginia Code § 2	2-6A-10(b)
PERSONAL SERVICE  Pursuant to W. Va. Code § 22 certificate of approval for the registered mail or by any meth sediment control plan require the surface of the tract on who oil and gas leasehold being dedescribed in the erosion and soperator or lessee, in the even more coal seams; (4) The ow well work, if the surface trace impoundment or pit as describave a water well, spring or provide water for consumpti proposed well work activity subsection (b) of this section records of the sheriff require provision of this article to the Code R. § 35-8-5.7.a require water purveyor or surface or	MAIL  -6A-10(b) no later than the construction of an impound and of delivery that requires d by section seven of this article the well is or is proposed eveloped by the proposed we dediment control plan submit the tract of land on which	RECEIPT OR SIGNATURE CONFIRMATION  filing date of the application, the applicant for a permit for any well work or for a ment or pit as required by this article shall deliver, by personal service or by a receipt or signature confirmation, copies of the application, the erosion and a receipt or signature confirmation, copies of the application, the erosion and iticle, and the well plat to each of the following persons: (1) The owners of record of the belocated; (2) The owners of record of the surface tract or tracts overlying the left work, if the surface tract is to be used for roads or other land disturbance as exted pursuant to subsection (c), section seven of this article; (3) The coal owner, the well proposed to be drilled is located [sic] is known to be underlain by one or tract or tracts overlying the oil and gas leasehold being developed by the proposed tent, construction, enlargement, alteration, repair, removal or abandonment of any riticle; (5) Any surface owner or water purveyor who is known to the applicant to within one thousand five hundred feet of the center of the well pad which is used to mimals; and (6) The operator of any natural gas storage field within which the re than three tenants in common or other co-owners of interests described in the applicant may serve the documents required upon the person described in the to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any vater testing as provided in section 15 of this rule.
☑ Application Notice ☑	WSSP Notice □E&S I	Plan Notice
SURFACE OWNER(s) Name:Eldon J. and Ruth A. Address: 3647 Next Road Sistersville, WV 2617 Name: Address:	Helman5-7076	Name: NO DECLARATIONS ON RECORD WITH COUNTY Address:  COAL OPERATOR Name: NO DECLARATIONS ON RECORD WITH COUNTY Address:
Name:	) (Road and/or Other Distu	Name: None identified within 1500'  Address:
SURFACE OWNER(	s) (Impoundments or Pits)	Name: Not Applicable  RECEIVED  Address:  Office of Oil and Gas
Address:		*Please attach additional forms if necessary 20 2021

WN Department of Environmental Protection

API NO. 47- 095 OPERATOR WELL NO. Clutter Unit 1H Well Pad Name: Eldon Pad

Notice is hereby given:

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 person to provide the person of the pers well work or for a certificate of approval for the construction of an impoundment or pit.

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment as 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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep wv.gov/ohand-gas/pages/default.aspx.

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 six 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 madequate or otherwise require alteration to address the items

API NO. 47-095 - 02176
OPERATOR WELL NO. Clutter Unit 1H
Well Pad Name: Eldon 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.

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.

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 supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state supplies in accordance with standard accepted methods. A surface owner and water purveyor has an independent right to sample and Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample 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.

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 application or construction of the applicant's proposed well work to the Secretary at:

Office of Oil and Case

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

WEU & W W Department 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.

API NO. 47- 095 OPERATOR WELL NO. Clutter Unit 1H Well Pad Name: Eldon Pad

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.

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-">http://www.dep.wv.gov/oil-and-gas/Horizontal-</a> Permits/Pages/default.aspx 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.

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.

> RECEIVED Gas DEC 2 0 2021 WV Department of Environmental Protection

WW-6A (8-13)

API NO. 47-095 OPERATOR WELL NO. Clutter Unit 1H Well Pad Name: Eldon Pad

		10 100		1
Notice	IS	hereby	given	Dy:

Well Operator: Antero Resources Corporation (303) 357-7310 Telephone: mstanton@antercresources.com Email:

Address: 1615 Wynkoop Street Denver, CO 80202

Facsimile: 303-357-7315

Oil and Gas Privacy Notice:

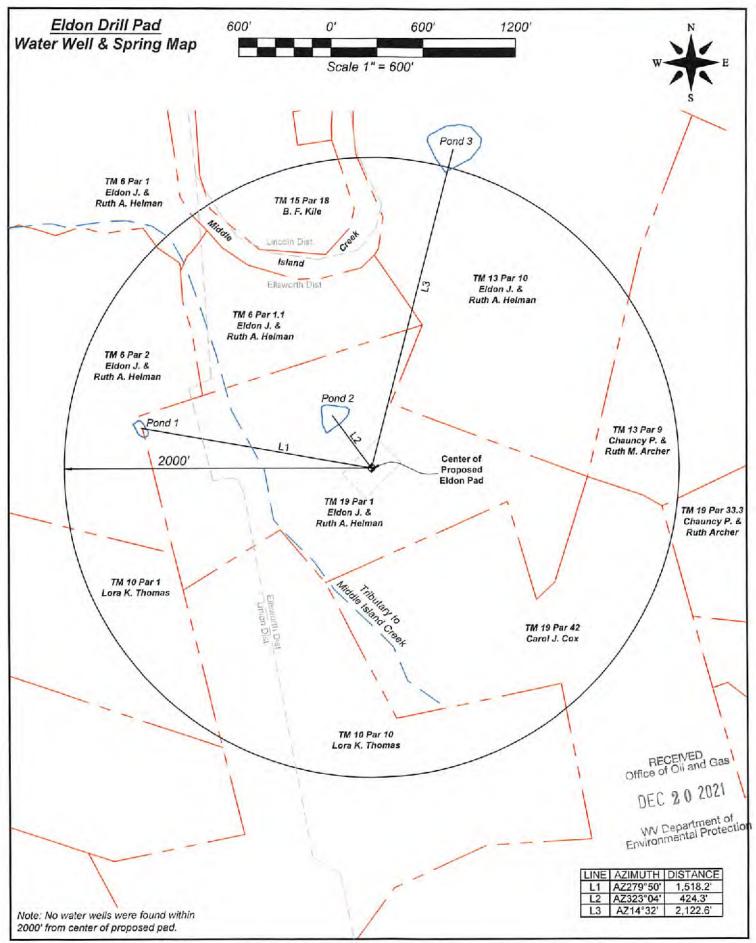
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory 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 depprivacyofficer@wv.gov.

DIANE BLAIR NOTARY PUBLIC STATE OF COLORADO NOTARY ID 19994011871 MY COMMISSION EXPIRES 27-Apr-2024 Subscribed and sworn before me this 15th day of 000, 2021.

Diona Blown Notary Public

My Commission Expires 27 Apr 2024

DEC 20 2021 WV Department of Environmental Protection



WW-6A4 (1/12) Operator Well No. Clutter Unit 1H Eldon Pad

# STATE OF WEST VIRGINIA 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.

otice Time Requate of Notice: 11/	irement: Notice shall be provided at least 18/2021 Date Permit A	Application Filed: 12/15/2021	
elivery method p	oursuant to West Virginia Code § 22-6A	4-16(b)	
	■ CERTIFIED MAIL		
HAND	DECEMPANDECEMPT RECUES	STED	
DELIVERY		The second secon	on operator shall, by certified mail return
ceipt requested of illing a horizont f this subsection absection may be nd if available, fa	RETURN RECEIF I REQUEST.  Code § 22-6A-16(b), at least ten days proper hand delivery, give the surface owner not all well: Provided. That notice given pure as of the date the notice was provided to the waived in writing by the surface owner, acsimile number and electronic mail address.	suant to subsection (a), section ten the surface owner: <i>Provided, howe</i> . The notice, if required, shall inclu- ess of the operator and the operator	ever. That the notice requirements of this de the name, address, telephone number, is authorized representative.
lotice is hereb	y provided to the SURFACE OWN	Name:	
	nd Ruth A., Helman	Address:	
Address: 3647 Nex	e, WV 26175-7076		
Notice is herch Pursuant to West the surface owne	y given: Virginia Code § 22-6A-16(b), notice is l r's land for the purpose of drilling a horiz	Easting:	503787.62m
Notice is hereb Pursuant to West the surface owne State: W County: Ty	y given: Virginia Code § 22-6A-16(b), notice is lard for the purpose of drilling a horizest Virginia	UTM NAD 83 Easting: Northing: Public Road Access:	503787.62m 4371565.50m Pieasant Ridge Road
Notice is hereboursuant to West he surface owne State:  County:  District:  E	y given: Virginia Code § 22-6A-16(b), notice is lard for the purpose of drilling a horizest Virginia	UTM NAD 83 Easting: Northing:	503787.62m 4371565.50m
Notice is hereb Pursuant to West the surface owne State: W County: Ty District: El	y given: Virginia Code § 22-6A-16(b), notice is lard for the purpose of drilling a horizest Virginia	UTM NAD 83 Easting: Northing: Public Road Access:	503787.62m 4371565.50m Pieasant Ridge Road
Notice is hereb Pursuant to West the surface owne State:  W County:  Ty District:  El Quadrangle:  M Watershed:  Bu Pursuant to We	y given: Virginia Code § 22-6A-16(b), notice is lard for the purpose of drilling a horizest Virginia  Vier  Isworth  Iddlebourne 7.5'  Iffalo Run Middle Creek  Intelligental Code § 22-6A-16(b), this necessary all address of the open and plactronic mail address of the open and plactroni	UTM NAD 83  Easting: Northing: Public Road Access: Generally used farm name:  otice shall include the name, add perator and the operator's authorize	4371565.50m Pleasant Ridge Road
Notice is hereb Pursuant to West he surface owne State:  W County:  District:  El Quadrangle:  M Watershed:  B  This Notice SI Pursuant to We facsimile numb related to horizo located at 601 5	y given: Virginia Code § 22-6A-16(b), notice is a r's land for the purpose of drilling a horizest Virginia  Vier  Isworth  Iddlebourne 7.5'  Iffalo Run Middle Creek  Inst Virginia Code § 22-6A-16(b), this mer and electronic mail address of the opental drilling may be obtained from the state of the property of the state of the property of the state of the	UTM NAD 83  Easting: Northing: Public Road Access: Generally used farm name:  otice shall include the name, add berator and the operator's authoriz Secretary, at the WV Department of	4371565.50m  Pleasant Ridge Road  Eldon J. Helman et ux  lress, telephone number, and if available are representative. Additional information of Environmental Protection headquarter dep.wv.gov/oil-and-gas/pages/default.aspx
Notice is hereb Pursuant to West he surface owne State:   County:   District:   Quadrangle:   Matershed:   B  This Notice SI Pursuant to We facsimile numb related to horize located at 601 5	y given: Virginia Code § 22-6A-16(b), notice is a r's land for the purpose of drilling a horizest Virginia  Vier  Isworth  Iddlebourne 7.5'  Iffalo Run Middle Creek  Inst Virginia Code § 22-6A-16(b), this mer and electronic mail address of the opental drilling may be obtained from the state of the property of the state of the property of the state of the	UTM NAD 83  Easting: Northing: Public Road Access: Generally used farm name:  otice shall include the name, add perator and the operator's authorized Secretary, at the WV Department of the perator of the WV Department o	### 4371565.50m  Pleasant Ridge Road  Eldon J. Helman et ux   Iress, telephone number, and if available and representative. Additional information of Environmental Protection headquarter dep.wv.gov/oil-and-gas/pages/default.aspx  e: Mallory Stanton
Notice is herebrursuant to West he surface owner state:  County:  District:  Quadrangle:  Watershed:  Bursuant to West he surface owner state:  Watershed:  Bursuant to West here states at 601 5	y given: Virginia Code § 22-6A-16(b), notice is lards and for the purpose of drilling a horizest Virginia  Virginia  Virginia  Virginia  Virginia  Virginia  Virginia Code § 22-6A-16(b), this mall Include:  Set Virginia Code § 22-6A-16(b), this mer and electronic mail address of the opental drilling may be obtained from the Set of Street, SE, Charleston, WV 25304 (30-25)  Antero Resources Appalachian Corporation  Antero Resources Appalachian Corporation  1615 Wynkoop Street	UTM NAD 83  Easting: Northing: Public Road Access: Generally used farm name:  otice shall include the name, add berator and the operator's authoriz Secretary, at the WV Department of	4371565.50m  Pleasant Ridge Road  Eldon J. Helman et ux   Aress, telephone number, and if available and representative. Additional information of Environmental Protection headquarter dep.wv.gov/oil-and-gas/pages/default.aspress  E. Mallory Stanton  1615 Wynkoop Street
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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.

WW-6A5 (1/12)

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

ate of Notice	12/15/2021 Date Pern			
elivery meth	od pursuant to West Virginia Co	de § 22-6A-16(c)		
CERTIFI	ED MAIL	☐ HAND		
	N RECEIPT REQUESTED	DELIVERY		
eturn receipt re ne planned op equired to be parilling of a ho amages to the d) The notices of notice.	equested or hand delivery, give the eration. The notice required by to provided by subsection (b), section prizontal well; and (3) A proposed surface affected by oil and gas open	e surface owner whose land this subsection shall include ten of this article to a surfa I surface use and compensa erations to the extent the da tiven to the surface owner a	will be used for e: (1) A copy of ce owner whose ation agreement mages are comp	eation, an operator shall, by certified mail if 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, ted in the records of the sheriff at the time
ot the address	listed in the records of the sheriff a	t the time of notice):		
Name: Eldon	J. and Ruth A. Helman	Name: _		
Name: Eldon . Address: 3647 N	J. and Ruth A. Helman lext Road			
Name: Eldon- Address: 3647 N Sisters  Notice is here Pursuant to We	J. and Ruth A. Helman  ext Road  ville, WV 26175  by given:  est Virginia Code § 22-6A-16(c), n	Name:Address otice is hereby given that the	e undersigned v	well operator has developed a planned
Name: Eldon- Address: 3647 N Sisters  Notice is here Pursuant to We operation on t State: County:	J. and Ruth A. Helman  lext Road  ville, WV 26175  by given: est Virginia Code § 22-6A-16(c), n  the surface owner's land for the pur  West Virginia  Tyler	Name:	e undersigned v well on the tra Easting: Northing:	ct of land as follows: 503787 82m 4371565.50m
Name: Eldon- Address: 3647 N Sisters  Notice is here Pursuant to We operation on t State: County: District:	J. and Ruth A. Helman  ext Road  ville, WV 26175  by given:  est Virginia Code § 22-6A-16(c), n  the surface owner's land for the pur  West Virginia  Tyler  Ellsworth	Name:  Address  otice is hereby given that the pose of drilling a horizonta   UTM NAD 8  Public Road A	e undersigned valuell on the tra Easting: Northing:	ct of land as follows: 503787.82m 4371565.50m Pleasant Ridge Road
Name: Eldon- Address: 3647 N Sisters  Notice is here Pursuant to We operation on t State: County: District:	J. and Ruth A. Helman  lext Road  ville, WV 26175  by given: est Virginia Code § 22-6A-16(c), n  the surface owner's land for the pur  West Virginia  Tyler	Name:  Address  otice is hereby given that the pose of drilling a horizonta   UTM NAD 8  Public Road A	e undersigned v well on the tra Easting: Northing:	ct of land as follows: 503787 82m 4371565.50m
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Name: Eldon- Address: 3647 N Sisters  Notice is herel Pursuant to We operation on t State: County: District: Quadrangle: Watershed:  This Notice Si Pursuant to We to be provided norizontal well surface affected information re headquarters,	J. and Ruth A. Helman  Jext Road  Jext Virginia Code § 22-6A-16(c), nother surface owner's land for the purwest Virginia  Tyler  Ellsworth  Middlebourne 7.5'  Outlet Middle Island Creek  Jest Virginia Code § 22-6A-16(c), nother land (3) A proposed surface use lated to horizontal drilling may be located at 601 57th Street, SE, ault.aspx.	Name:Address  otice is hereby given that the pose of drilling a horizontaUTM NAD 8  Public Road A Generally use this notice shall include: (1) to a surface owner whose and compensation agreement extent the damages are contained from the Secret Charleston, WV 25304	e undersigned valued on the tra Easting: Northing: Access: d farm name:  A copy of this land will be understand ary, at the WV (304-926-0450)	code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional or by visiting www.dep.wv.gov/oil-and Office of Oil and Gaston of the conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional or by visiting www.dep.wv.gov/oil-and Gaston of Oil and Office of Oil Oil and Office of Oil and Oil and Office of Oil and Oil and Oil and Oil and Oil and Oil and Oil a

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="deepprivacyofficer@wv.gov">deepprivacyofficer@wv.gov</a>.

API NO. 47-4957 0 9 5 0 2 7 7 6
OPERATOR WELL NO. Clutter Unit 1H
Well Pad Name: Eldon Pad

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

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.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

#### VOLUNTARY STATEMENT OF NO OBJECTION

County:	West Virginia	LETM NAD 92 Easting:	503787.82m
	West Virginia Tyler	Northing:	
District:	Ellsworth	Public Road Access:	CR 10/1
Quadrangle: Watershed:	Middlebourne 7.5* Outlet Middle Island Creek	Generally used farm name:	Eldon J. & Ruth A. Helman
Please chec	k the box that applies	FOR EXECUT	TON BY A NATURAL PERSON
		FOR EXECUT	ION BY A NATURAL TERSON
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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>.

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	37971-36-1
3.	Ammonium Persulfate	7727-54-0
4.	Anionic copolymer	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	Mixture
10.	Ethoxylated Nonylphenol	68412-54-4
	Ethoxylated oleylamine	26635-93-8
	Ethylene Glycol	107-21-1
	Glycol Ethers	111-76-2
	Guargum	9000-30-0 7647-01-0
	Hydrogen Chloride	
	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 64742-47-8
	Petroleum Distillates (BTEX Below Detect)	* ** *- ** *-
	Polyacrylamide	57-55-6 107-19-7
	Propargyl Alcohol	57-55-6
	Propylene Glycol	14808-60-7
	Quartz	7631-86-9
	Sillica crystalline quartz Sodium Chloride	7647-14-5
		1310-73-2
	Sodium Hydroxide	57-50-1
	Sugar Surfactant	68439-51-0
	Suspending agent (solid)	14808-60-7
	Tar bases, quinolone derivs, benzyl chloride-quarternized	72480-70-7
	Solvent Naptha, petroleum, heavy aliph	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 a	
	Diethylene Glycol	111-46-6
	Methenamine	100-97-0
	Polyethylene polyamine	68603-67-8
	Coco amine	61791-14-8
	2-Propyn-1-olcompound with methyloxirane	38172-91-7
	-	



## WEST VIRGINIA DEPARTMENT OF TRANSPORTATION Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

D. Alan Reed, P.E. State Highway Engineer Jimmy Wriston, P. E. Secretary of Transportation Commissioner of Highways

December 7, 2021

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 Eldon Pad, Tyler County
Clutter Unit 1H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2018-0802 which has been issued to Antero Resources Corporation for access to the State Road for a well site located off Tyler County Route 10/1 SLS MP 3.32.

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 October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Gary K. Clayton, P.E.

Dary K. Clayton

Regional Maintenance Engineer

Central Office O&G Coordinator

Cc: Mallory Stanton

Antero Resources Corporation

CH, OM, D-4

File

DEC. 2.0 2021

VM Department of Environmental Protection

LOCATION COORDINATES:
ACCESS FOAZ \*\* ESTEARCE
ACTESS FOAZ \*\* ESTEARCE
ATTERIES: 29 AMPRIO LONGITUDE -0.05 3900 (BAZ) BBJ
ATTUDE; 29 AMPRIO LONGITUDE: -0.05 3900 (BAZ) BBJ
ATTUDE; 29 AMPRIO LONGITUDE: -0.05 3900 (BAZ) BBJ
ATTERIOR: 25 AMPRIO LONGITUDE: -0.05 3900 (BAZ)
ATTERIOR STATEMENT CONTROLLED CONTROLLE

APPEND BOAT 'B' ENTRANCE LATITUDE 20 MOVAN CONGRUDE -E0.954640 (MAD 81)
LATITUDE 39.494603 LONGRUDE -60.954640 (MAD 81)
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APPROVED

MODIFICATION

WYDEP OOG

CHARLES & COMPTON III - LITERTY COORDINATOR CELL (COA) 710-6440

ENGINEER/SUBVEYOR: MANTUS ERGENEERING INC CYMUS S RUUT, TO FROMET NAMAGER/ANGINEER OFFITS (888) 262-4026 CELL (649) 080-6747

ENVIRONMENTAL EDMINISTRATE DIC. TRANS MALDONADO - ENVIRONMENTAL EPECIALIST OFFICE (812) 829-1001 DELL (870) 778-5780

GEOTECHNICAL FEMINITARIA SOIL & BOCK, INC. CHICETOPHER W. MANDEY - PED/SET ENGINEER OFFICE (412) \$123-4000 CELL (413) \$69-0562

DAVID PATRY - LAND AGENT

2/11/2020

MISS UTILITY STATEMENT:
AND RESOURCE CONTROL WILL SOMETHING THE TOTAL THE PROPERTY VIRGINIA FOR THE LOCATION OF UTILITY OF WEST VIRGINIA FOR THE LOCATION OF UTILITIES PROBE TO THE PROJECT DESCRIPTION, THE PROJECT DESCRIPTION OF THE CONTRIBUTION FIRST TO THE OTHER OTHER PROJECT.

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PENESTIANNA SOLE, & BOCK, DEC. DATES MAY 3. SOLE MEPHOTS THE RESIDENT OF THE SUBSEPLACE
BY
PENESTIANNA THE OFFICE ASSOCIATED STILL STITES, TO THE SUBSEPLACE REVIEW AND
BY PENESTIANNA THE A EDGE, DIC FOR ADDITIONAL DEPOINATION, AS RECEIVED.

#### PROJECT CONTACTS:

OPERATOR.
ANTHRO RESOURCES CORPORATION
DED WHITE CARE SLYD.
REINSTEPOST, W. 20220
PICKE (2024) RE2-8100
PAR (2014) RE2-8102

ELI NAGONES - ENVIRONMENTAL ENGINETE & REGULATORY MANAGER OFFICE (004) 842-4008 CHLL (004) 478-1770

JON M. STEED - SHEETOR COMPLETIONS OFERATIONS OFFICE (000) 307-5789 CTLL (000) 500-2400

AMEDY MUNICIPE - CONSTRUCTION MANAGER PHONE (004) RAE-4101

DODERT WIRES - DESIGN MANAGER OFFICE (304) N42-4100 (231 (304) 527-7405

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#### SEPRODUCTION NOTE

## **ELDON**

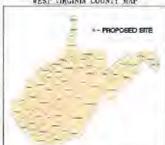
WELL PAD & WATER CONTAINMENT PAD SITE DESIGN & CONSTRUCTION PLAN. **EROSION & SEDIMENT CONTROL PLANS** 

> ELLSWORTH DISTRICT, TYLER COUNTY, WV BUFFALO RUN-MIDDLE ISLAND CREEK WATERSHED

> USGS 7.5 MIDDLEBOURNE, & PADEN CITY QUAD MAPS



WEST VIRGINIA COUNTY MAP



MOT TO SCALE

DESIGN TERRIPICATION:
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REFERENCE DIAGRAMS ATTACHD HEIGHT HAVE
BEEN PREPARED IN ACCORDANCE WITH THE
MEET VIRGINIA COME OF THE RELASS, DATABON
OF ESTRICOMMETAL PROTECTION OFFICE OF OIL
AND GAS THE 30-6

WYDOH COUNTY ROAD MAP



MISS Utility of West Virginia 1-800 245-4848 West Virginia State Law (Section XIV: Chapter 24-C) Requires that you call two business days before you dig in the state of West Virginia IT'S THE LAW!

STORM COMPUTATIONS & EAS COMPUTATIONS SUSTING CONDITIONS OVERALL PLAN SHEET BRIEF & VOLUMES

PLOON EMITS OF OCTURBANCE AN	EATAGY
Tetal Sea	
Access Fload "A" (2.353")	7.26
Access Road '8" (\$477)	5.21
Staging Area	0.65
West Pag	1266
Excess/Logaral Material Stockgries	9,07
Total Affected Area	35.94
Total Wooded Acres Disturbed	4.02
Impace to Eldon J. Malmum TM L	-10
Access Road 'A' (1,635)	5 00
Access Rose 'B' () ATT)	2.75
Slaging Ases	0.33
Excess/Tecavil Material Stockgries	1.75
Total Affected Area	10.23
Total Wooded Acres Disturbed	176
Property to Eldon J. Hebrer Till t	5-1
Access fload '8"	1.98
Total Affected Area	1,58
Total Wooded Acres Disturbed	0.11
Impace to Elder J. Helman TM f	9.1
Access Road "A" (718)	2.26
Access Hoad "B"	0.45
WetPad	12.56
Excess/Topical Material/Stockpiles	7.32
Total Affected Area	22.73
Total Wooded Ages Distagged	2 (2

ELDON WETLAND INPACT (SQUARE PEET)						
Wednesd and Impact Course	FRISF)	Total Impact (SF)	(AC)			
Wetard 2 (PE U) (Access fload)	450	495	0.01			
Vietard 2 (PSS) (Access Road)	1,875	1,875	0.04			
Withrid 4 (PEM) (Access Roso)	1,900	1,900	0.04			

	Parrarent Impacis		Temp. Impects	Temp Disterts	Total Impact
Strom and Impact Cause		Electores (LF)	Colleignes, CVS	LOD. (LF)	(LF)
librearo 12 (Access Road)	20	- 11	. 0	0	37
Steam 13 (Acress Read)	38	15	15	17	68
Stream 14 (Access Road)	43	14			86

	Pama	right highwarts	Temp Ampertu	Tampi Dienafi	Total treaset
Stream and Impact Cause			Controls (LP)		(LF)
Sharm 10 (Access Fiber)	275	15	25	0	315

	Permo	ment monch	Tamp Impacts	Temp Disture	Total Second
Stream and Impact Germe			Contrain (LF)		(LF)
Street 14 (Access Road)	40	47	8	D	. 87
Streem 10 (Accres Road)	- 23	5	0		36

Propend Well Harm	WV Horth	MAO 27 Lat & Long	Down 17	NAD 81 LE & Long
Eklorade	A SHITTER ST	LAT DEPLOE 1754	443712/04	AT 16-20-36 4814
Wolf He	<b>(C 10000000000</b>	FDWS-40-01-29-0179	6 STM42 26	CORD-Interior and
Delorado	N 380115 29	LAT 39-29-30, 2472	N 457154) EZ	AT 25 25 255
D+2 2H	E 1985 S 18	LONG-80-87-37 31M	E 92847.27	LONG-REASTATE STORE
Record of Devise SH	N 28152.21	DFT 28-28-2140	N ASPESANTA	LAT IN SHARE SHOW
	E 1500ED-12	LONG MI 87 37 7400	6 SCH01 27	COMO ES EP 27 1900
Deville	N 202108-26	LAT 20/29-50 2007	N ESTERNIC	AT 25-25-38, mm?
Unit 24	ff stammakes	LDMD-80-57-07 5796	P Scient 27	DAG 40-55 20 BBC
PROCES	N SERTIMAN	DATE OF SECURIAL	H 487 HART	LAT 39-35-39,7390
Unit 31	C ISMARISH BO	LOVO 60 57-27,4082	E 9001059-27	LONG 40 57-30 7990
Feigns	N 305163.46	LATS939-06-0044	H 41/100 49	AT 36-25-30 5104
Unit 1H	OF ETHINGETS THE	1.0x0 -8581-37 3468	E 000003 27	CMS 4047-76 6307
Porger	76 305190 61	LAT THE PERSON NAMED IN	N. 45F15A2.7m	LAT SHEET SHEET
Mot 21	5 1505585 SE	LONG 40-57-37-0734	E 509907.28	LONG 45 57-25 4534

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4 - MATERIAL QUARTITIES

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16—30 — VELLOUI EXCENSIVE
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16—30 — ACCESS ROAD SEXTIONS
16—30 — ACCESS RO

37 - VELL PAD & STOCKPILE RECLAMATION PLAN GENOR-GENON - GEOFECHDICAL PETAILS

PLOON LANTS OF DISTURBANCE AN	EA (AC)
Tetal Sea	
Access Road "A" (2.353")	7.26
Attenta Road 'C' (\$477)	521
Steping Area	0.65
Wes Peg	1268
Excess/Lagaral Material Stocky les	9,07
Total Affected Area	35.94
Total Wooded Acres Disturbed	4.02
Impacts to Elden J. Melinum TM 13	-10
Access Road "A" (1,635)	5 00
Access Road 'B' (1 477)	2.75
Shiping Asen	0.33
Excess/Teceval Material Stockgries	1.75
Total Affected Area	10.23
Total Wooded Acres Disputed	176
Property to Eldon J. Helman Till 6	-t
Access Boad 18"	1.98
Total Affected Area	1.98
Total Wooded Agres Disturbed	0.11
Impacts to Elder J. Hehnan TM f.	9.1
Access Road "A" (718)	2.26
Access Hoad "B"	0.48
WellPad	12.56
Excess/Topical Material Stockpiles	7.32
Total Affected Area	92.75

			1,900	0.04	
ELDO	N MTERM	TENT STREAM	MARKET PLINEAR	EET	
	Parrie	neni Irpacis	Temp. Impects	Tump Disturb	Total Impact
Stram and Impact Cause			Controls (LF)	Distance to L.O.D. (UF)	(LF)
libraro (2 (Access Fload)	20	11	. 0	0	37
Stream 13 (Acress Road)	38	15	15	17	68
Stream 14 (Azzens Road)	43	14			86

	Permanent Impacts		Tamp Arganta	Tamps Dismorts	White Street Links
Stream and Impact Cause		intertu/Outlets	Controls (LF)	Distance to	(LF)
Sharm 10 (Access Road)	275	15	25	0	315
ELD	ON EPHEM	HAL STREAM M	PAST LINEAR F	EET)	
	Parmo	west masch	Tamp reputs	Temp Distura	Total Second
Stream and Impact Germe	Comment	InstruCythete	Coffeetan FAS	Distance to	(LF)

Propused Well Harm	NAD 37	MAD 27 Lat & Long	Con 17	NAD STAR & LONG
Ektorape	A SHITTER ST	LAT DE 24-36 1754	443712/04	AT 10-20-30 4814
Volt 100	<b>(C 1005000-04</b>	LDMG-40-01-29-0179	6 STM4326	CORD - BISTOT ANTH
Enforante Unit 201	4 380155 26	A7 39-29-30 2472	N 457 1541 EZ	AT 25 25 25 25 25 25 25 25 25 25 25 25 25
	E STREET IS	LDWG-60-61-27-3124	E 92847.27	CONG HELSTATT STOR
Referenced to Devise SH	N 200162.21	(AT 78-25-26-2198)	N 45FFM 184	LAT 30-29-30 SHORT
	E 1588ED.43	CHI W. 87-37 7400	6 6089127	LONG ELEPTINE
Deville Unit 24	N 202105.26	LAT 20/29-50 2007	N ESTERNO	AT 25-25-30, mm?
	ff stammakes	LONG-ROSE STATE STATE	E balent 27	COMO - ACASTANI DAG -
PROPER	N SERTIMAN	IAT TO THE WORLD	H-ENTHART	LAT 39-39-07.7990
Una Di	C ISMARISH BO	LONG. 60 57:27,4062	E 100989-27	LONG 40 57-35 7993
Fergus Mole 114	N 305163.46	LAT SP39-36-5044	H 43F1000 49	AT 30-25-30 5104
	OF PERMITS NO	1.Data -85-51-37 3408	E 800003 27	CMS 4047-79 BMT
Porger Mot 20	76 305190 61	LA I THE DE PRINT	N. 45F15A2.7th	LAT SHEET SHEET
	E ISSESSES SE	LONG 80-57-27-0734	E 509907.28	LONG 45 57-25 4534



Antero THE DOCUMENT WAS PREFAMED FOR ANTERN HOSD-REED CORPORATION

PAD

ELDON

WATER CONTAINMENT P.

LENGRIH DISTRICT

30 WELL PAD

SHEET

COVER

S

ENGINEERING

DATE: 03/07/2019 SCALE AS SHOWN SHEET 1 OF 37

