

## 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 17, 2025 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET

DENVER, CO 80202

Re:

Permit approval for Brushy Unit 5V

47-017-06987-00-00

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) 9263 0450

James A. Martin

Operator's Well Number: Brushy Unit 5V

Farm Name: Sandra E Erwin

U.S. WELL NUMBER: 47-017-06987-00-00

Horizontal 6A New Drill

Date Issued: 1/17/2025

470	1	7	0	6	9	8	7
API Number:						_	

## **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.

COL	ND	ITI	(A)	NS.
CU	J.			10

- 1. 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.
- 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.
- 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. 47-017 -		
OPERATOR WELL	NO.	Brushy Unit 5V
Well Pad Name:	Brushy	Pad

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

1) Well Operato	.: Antero R	esources	Corporal	494507062	017-Doddrid	New Milt	New Milton
-) en operato				Operator ID	County	District	Quadrangle
2) Operator's W	ell Number:	Brushy Un	it 5V	Well Pa	ad Name: Brush	ny Pad	
3) Farm Name/S	Surface Owne	er: Sandra	E. Erwin	Public Ro	oad Access: Tor	ns Fork	
4) Elevation, cur	rrent ground:	1212'	El	evation, proposed	d post-constructi	ion: 1212'	
	(a) Gas X		Oil _	Un	derground Stora	ge	
	1-7	Shallow Horizontal	X	Deep			
6) Existing Pad:	Yes or No	No					
				ipated Thickness ess- 55 feet, Assoc			
8) Proposed Tot	al Vertical D	epth: 770	O'TVD				
9) Formation at			Marcellus	S			
10) Proposed To	otal Measure	d Depth:	7700' ME	)			
11) Proposed H	orizontal Leg	Length:	0'				2.
12) Approximat	te Fresh Wate	er Strata De	pths:	702'			
13) Method to I	Determine Fre	esh Water I	Depths:	47-017-01341			
14) Approximat	te Saltwater I	Depths: 23	07'				
15) Approximat	te Coal Seam	Depths: N	I/A				
16) Approximat	te Depth to P	ossible Voi	d (coal m	ine, karst, other):	None Anticipa	ated	
17) Does Propo directly overlying				ms Yes	No	x	
(a) If Yes, pro	vide Mine In	fo: Name	:				
Augres accounts		Depth	:				
		Seam					
		Owne	r:				

Page 1 of 3

WW-6B (04/15) API NO. 47- 017 -

OPERATOR WELL NO. Brushy Unit 5V

Well Pad Name: Brushy 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#	752'	752'	CTS, 731 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	1117'	1117'	CTS, 455 Cu. Ft.
Intermediate			(1.01)				
Production	5-1/2"	New	P-110	23#	7700'	7700'	1013 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	~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"	12,630	2500	Land-HPOZ & Tell - 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	

SK 1-8-25

OPERATOR WELL NO. Brushy Unit 5V
Well Pad Name: Brushy 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): 37.49 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 6.90 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 conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pip 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.

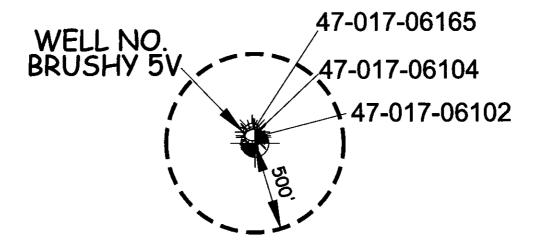
Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls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

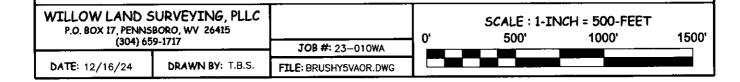
\*Note: Attach additional sheets as needed.

Page 3 of 3

SK 1-8-25

# BRUSHY PAD ANTERO RESOURCES CORPORATION





UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47017061650000	SCHULTEUNIT	1H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP	15,386	7478 - 15330	Marcellus	The second second second
47017061040000		2H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP	15,954	7517 - 15898	Marcellus	
47017061020000		1H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP	15,862	7298 - 15805	Marcellus	



west virginia department of environmental protection

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

IN THE MATTER OF A VARIANCE FROM	)	
LEGISLATIVE RULE 35CSR4	)	ORDER NO. 2022-14
SECTION 11.5 AND LEGISLATIVE RULE	)	
35CSR8 SECTION 9.2.h.8.,	)	
RELATING TO THE CEMENTING	)	
OF OIL AND GAS WELLS	)	

## 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.

## FINDINGS OF FACT

- Office Of Oil and Oil
- 2. 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

Environmental Protection

James Martin, Chief Office of Oil and Gas



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

December 6th, 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 Brushy Unit 5V Doddridge 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 (Brushy Unit 5V) on the Brushy 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,

Carly Wren Permitting Agent

Antero Resources Corporation



WW-9 (4/16)

API Number 47 -	017		
Operator's	Well No.	Brushy Unit 5V	

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

FLUIDS/ CUTTINGS DISPO	OSAL & RECLAMATION PLAN
Operator Name Antero Resources Corporation	OP Code 494507062
Watershed (HUC 10) Headwaters Middle Island Creek	Quadrangle New Milton
Do you anticipate using more than 5,000 bbls of water to complet Will a pit be used? Yes No	ete the proposed well work? Yes No
If so, please describe anticipated pit waste:	of at this site (Chilling 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:	
■ Reuse (at API Number Future permitted	Number *UIC Permit # will be provided on Form WR-34 ) well locations when applicable. API# will be provided on Form WR-34 ) -9 for disposal locatior(Meadowfill Landfill Permit #SWF-1032-98) Northwestern Landfill Permit #SWF-1025/ WY0109410 Wetzel Co Landfill Permit #SWF-1021
Will closed loop system be used? If so, describe: Yes, fluids sto	ored in tanks, cuttings removed offsite and taken to landfill.
Drilling medium anticipated for this well (vertical and horizonta	Surface - Air/Freshwater, Intermediate -
-If oil based, what type? Synthetic, petroleum, etc. Syr	
Additives to be used in drilling medium? Please See Attachment	
Drill cuttings disposal method? Leave in pit, landfill, removed of	officite etc. Drill cuttings stored in tanks, removed offsite and taken to landfill.
-If left in pit and plan to solidify what medium will be t	
**	dfill (Permit #SWF-1032-98), Northwestern Landfill (Permit # SWF-1025/WV0109410)
Wetzel Co Land	Ifill (Permit #SWF-1021)
Permittee shall provide written notice to the Office of Oil and Go West Virginia solid waste facility. The notice shall be provided where it was properly disposed.	as of any load of drill cuttings or associated waste rejected at any within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the West Vir provisions of the permit are enforceable by law. Violations of law or regulation can lead to enforcement action.  I certify under penalty of law that I have personally application form and all attachments thereto and that, based	onditions of the GENERAL WATER POLLUTION PERMIT issued ginia Department of Environmental Protection. I understand that the any term or condition of the general permit and/or other applicable examined and am familiar with the information submitted on this on my inquiry of those individuals immediately responsible for ue, accurate, and complete. I am aware that there are significant ity of fine or imprisonment.
Company Official Signature Gretchen Kohler	
Company Official (Typed Name) Gretchen Kohler	
Company Official Title Director of Environmental & Regulatory C	ompliance
Subscribed and sworn before me this 10 day of 1	Notary Public CARLY RAYNE WREN
My commission expires 10-5-210	NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20224038743 MY COMMISSION EXPIRES 1005/2026

Form WW-9		
Antero Resources Corporation	Operator's V	Well No. Brushy Unit 5V
Proposed Revegetation Treatment: Acres Disturbed 3	7.49 Prevegetation p	н
Lime 2-4 Tons/acre or to correct		
Fertilizer type Hay or straw or Wood Fiber (will	be used where needed)	
Fertilizer amount 500	lbs/acre	
Mulch 2-3	_Tons/acre	
	d (26.20)+ Well Pad (6.90) + Spoil Pile 1 (4.39) = 37.49 Acres	
Temporary	Perm	anent
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 seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for additional seed type (Brushy Pad Designation of the IV-3 for addition of	gn) See attached Table IV-4A for additions	al seed type (Brushy Pad Design)
*or type of grass seed requested by surface ow	-	
*or type of grass seed requested by surface own Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, incarreage, of the land application area.  Photocopied section of involved 7.5' topographic sheet.	*or type of grass seed required application (unless engineered plans included dimensions (L x W x D) of the pit, an	ested by surface owner
*or type of grass seed requested by surface own Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, incarreage, of the land application area.  Photocopied section of involved 7.5' topographic sheet.	*or type of grass seed required application (unless engineered plans included dimensions (L x W x D) of the pit, an	ested by surface owner
*or type of grass seed requested by surface own Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, incarreage, of the land application area.  Photocopied section of involved 7.5' topographic sheet.	*or type of grass seed required application (unless engineered plans included dimensions (L x W x D) of the pit, an	ested by surface owner
*or type of grass seed requested by surface ow Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, incarreage, of the land application area. Photocopied section of involved 7.5' topographic sheet.	*or type of grass seed required application (unless engineered plans included dimensions (L x W x D) of the pit, an	ested by surface owner
*or type of grass seed requested by surface ow Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, incarreage, of the land application area. Photocopied section of involved 7.5' topographic sheet.	*or type of grass seed required application (unless engineered plans included dimensions (L x W x D) of the pit, an	ested by surface owner
*or type of grass seed requested by surface ow Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, incarreage, of the land application area. Photocopied section of involved 7.5' topographic sheet.	*or type of grass seed required application (unless engineered plans included dimensions (L x W x D) of the pit, an	ested by surface owner
*or type of grass seed requested by surface ow Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, incarreage, of the land application area. Photocopied section of involved 7.5' topographic sheet.	*or type of grass seed required application (unless engineered plans included dimensions (L x W x D) of the pit, an	ested by surface owner

Title: 0118 698 Inspector Date: 1-8-25

Field Reviewed?

01/1	7/20	)25

## 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

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 Emulsiq

Caustic Soda

Sodium Hydroxide - Alkalinity Control

10. Mil-Lime

Calcium Hydroxide - Lime

11. LD-9

Environmental Protection Polyether Polyol - Drilling Fluid Defoamer

12. Mil Mica

Hydro-Biotite Mica – LCM

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

31. Milstarch

32. Mil-Lube



911 Address 596 Brushy Fork Rd New Milton, WV 26411

# Well Site Safety Plan Antero Resources

Well Name: Brushy Unit 5V

Pad Location: BRUSHY PAD

Doddridge County/New Milton District

**GPS Coordinates:** 

Entrance - Lat 39.158149/Long -80.697874 (NAD83)

Pad Center - Lat 39.156853 /Long -80.695780 (NAD83)

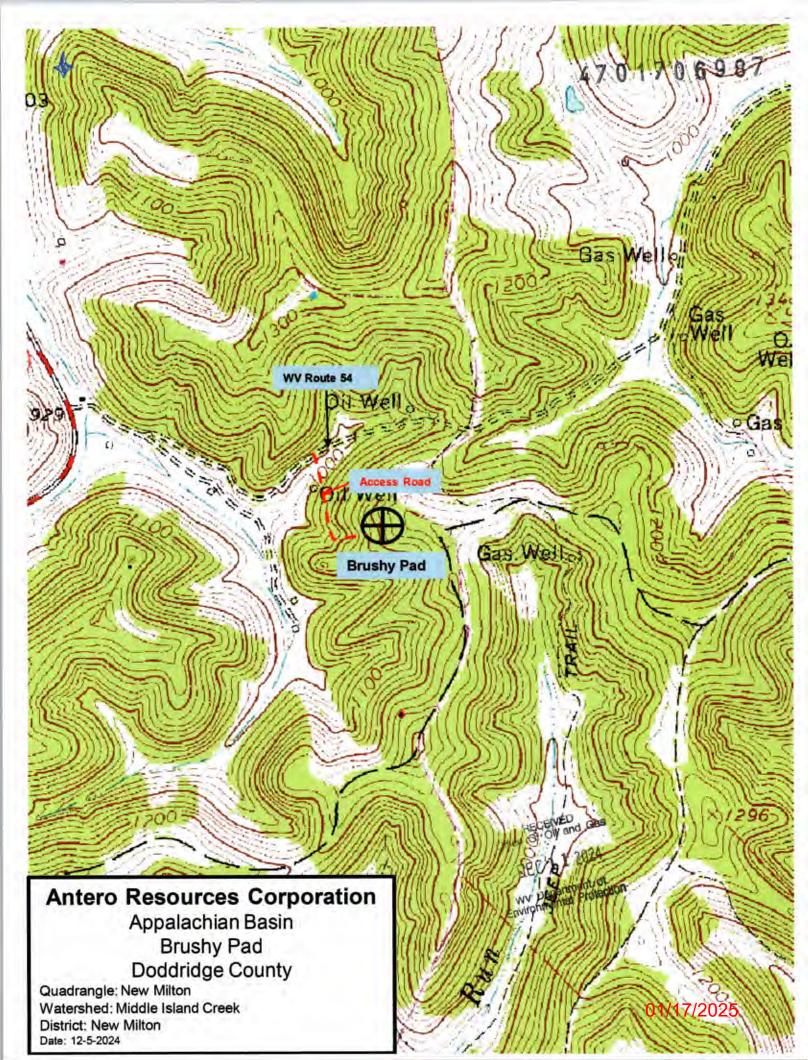
## **Driving Directions:**

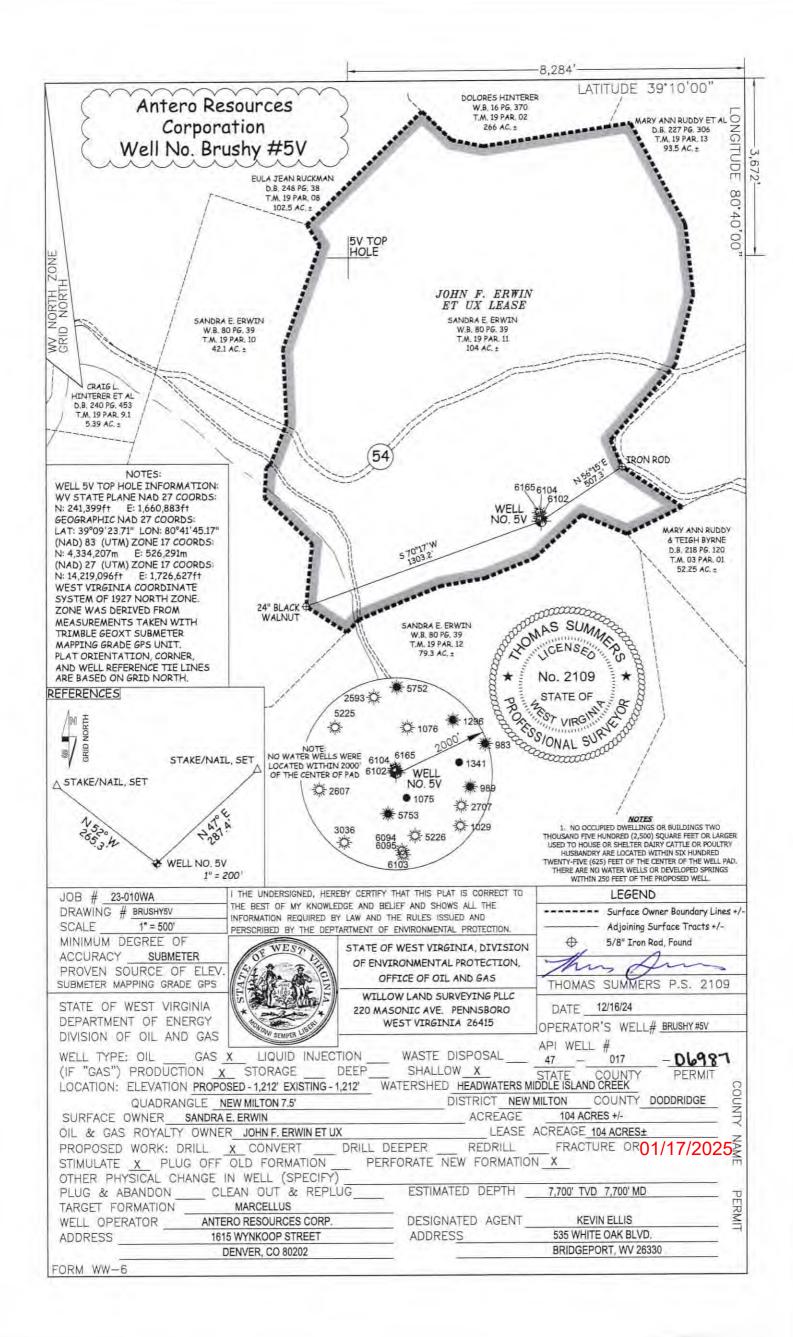
- 1. From the I-79 Burnsville exit, turn west onto CO. 5 and travel for 14.9 miles.
- 2. Turn right onto US-33 and travel for 8.9 miles.
- 3. Turn left onto WV-47 and travel for 3.6 miles.
- 4. Turn right onto WV-18 and travel for 12.3 miles.
- Turn right onto CO. 54 and travel for approximately 0.8 miles. The lease road is on the right.

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

1

1-8-25





WW-6A1 (5/13)

## 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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
John F. Erwin, et ux Lease	John F. Erwin, et ux Bluestone Energy Partners BEP Merger Sub, LP	Bluestone Energy Partners BEP Merger Sub, LP Antero Resources Corporation	1/8 Merger M <b>erge</b> r	251/486 288/1 <b>288/</b> 1

## 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 or eplaces, or nullifies the need for other permits/approvals that may be necessary and further things printed in 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			



November 19, 2024

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

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

RE:

Brushy Unit 5V

Quadrangle: New Milton

Doddridge County/New Milton District, West Virginia

## Mr. Martin:

Antero Resources Corporation (Antero) is submitting the following application for a new well work permit for the Brushy Unit 5V 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 Brushy Unit 5V horizontal lateral will drill through including any and all roads crossed under as identified on the attached survey plat.

Sincerely,

Anthony Hoehler

Landman

Office Of Oil and Gas

DEC 1 1 2024

WV Department of Environmental Protection

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

Date of Notic	ce Certification: 12/09/2024	API	No. 47- 017 -	
		Oper	rator's Well No. Brus	shy Unit 5V
	_	Weil	Pad Name: Brushy	Pad
Notice has l				
Pursuant to the	ne provisions in West Virginia Code	§ 22-6A, the Operator has provided	the required parties	with the Notice Forms listed
State:	tract of land as follows:	E	F00004 40	
County:	Doddridge	UTM NAD 83 East	ing: <u>526291.43m</u> hing: 4334207.18m	·
District:	New Milton	Public Road Access:	Tome Fork	
Quadrangle:	New Milton	Generally used farm n		· · · · · · · · · · · · · · · · · · ·
Watershed:	Headwaters Middle Island Creek			
of giving the requirements Virginia Code	ed the owners of the surface descri- equired by subsections (b) and (c), so surface owner notice of entry to su of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall thave been completed by the applicant	ection sixteen of this article; (ii) that irvey pursuant to subsection (a), so f this article were waived in writi ender proof of and certify to the sec	the requirement was ection ten of this art ng by the surface or	s deemed satisfied as a result icle six-a; or (iii) the notice wner; and Pursuant to West
that the Ope	West Virginia Code § 22-6A, the Or rator has properly served the require ECK ALL THAT APPLY	perator has attached proof to this No d parties with the following:	otice Certification	OOG OFFICE USE ONLY
☐ 1. NO	TICE OF SEISMIC ACTIVITY OF	INOTICE NOT REQUIRED IN SEISMIC ACTIVITY WAS CON		□ RECEIVED/ NOT REQUIRED
☐ 2. NO?	TICE OF ENTRY FOR PLAT SURV	'EY or 🔳 NO PLAT SURVEY W	AS CONDUCTED	☐ RECEIVED
■ 3. NO	TICE OF INTENT TO DRILL OT	☐ NOTICE NOT REQUIRED INOTICE OF ENTRY FOR PLAT WAS CONDUCTED or		RECEIVED/ NOT REQUIRED
		WRITTEN WAIVER BY ST (PLEASE ATTACH)	URFACE OWNER	
■ 4. NO	ΠCE OF PLANNED OPERATION			RECEIVED
■ 5. PUE	BLIC NOTICE			E RECEIVED
■ 6. NO	TICE OF APPLICATION			☐ RECEIVED
			RECO	

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 notice that the required parties have been the return receipt card or other postal receipt for certified mailing.

## Certification of Notice is hereby given:

THEREFORE,		, have read and understand	the notice requirements within V	Vest Virginia Code 8 22-
6A. I certify the	at as required under West Virgin	nia Code § 22-6A, I have s	erved the attached copies of the	Notice Forms identified
above, to the re	equired parties through personal	service, by registered mai	or by any method of delivery t	hat requires a receipt or
signature confir	mation. I certify under penalty of	f law that I have personally	examined and am familiar with the	ne information submitted
in this Notice	Certification and all attachment	ts, and that based on my	inquiry of those individuals imm	ediately responsible for
obtaining the in	formation, I believe that the infor	rmation is true, accurate an	d complete. I am aware that there	are significant penalties
for submitting f	alse information, including the po	ssibility of fine and imprise	onment.	r
ALCOHOLD STATE				
Well Operator:	Antero Resources Corporation	Address:	1615 Wynkoop Street	
By:	Jon McEvers , M	1 evers	Denver, CO 80202	
Its:	Senior VP of Operations	Facsimile:	303-357-7373	
Telephone:	303-357-6799	Email:	cmarvel@anteroresources.com	
			a	
	CARLY RAYNE WREN	Subscribed and swe	orn before me this day of	December 2029
	NOTARY PUBLIC			
	STATE OF COLORADO	I come u lea	une ween	Notary Public
N N	IOTARY ID 20224038743		V	
MY C	OMMISSION EXPIRES 10/05/2026	My Commission E	xpires10-5-710	

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



WW-6A (9-13)

API NO. 47-017
OPERATOR WELL NO. Brushy Unit 5V
Well Pad Name: Brushy Pad

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 12/10/2024 Date Permit Application Filed: 12/10/2024 Notice of: PERMIT FOR ANY ☐ CERTIFICATE OF APPROVAL FOR THE WELL WORK CONSTRUCTION OF AN IMPOUNDMENT OR PIT Delivery method pursuant to West Virginia Code § 22-6A-10(b) □ PERSONAL ☐ REGISTERED METHOD OF DELIVERY THAT REQUIRES A SERVICE MAIL RECEIPT OR SIGNATURE CONFIRMATION Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") 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. ☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice ☐ Well Plat Notice is hereby provided to: ☑ SURFACE OWNER(s) COAL OWNER OR LESSEE Name: Sandra E. Erwin Name: NO DECLARATIONS ON RECORD WITH COUNTY Address: 12222 WV Route 18 S Address: New Milton, WV 26411 Name: COAL OPERATOR Address: Name: NO DECLARATIONS ON RECORD WITH COUNTY Address: □ SURFACE OWNER(s) (Road and/or Other Disturbance) Name: WATER PURVEYOR(s)/OWNER(s) OF WATER WELL, Address: SPRING OR OTHER WATER SUPPLY SOURCE Name: NONE WITHIN 1500' Name: Address: \_ Address: □ OPERATOR OF ANY NATURAL GAS STORAGE FIELD Office Of Oil and Gas ☐ SURFACE OWNER(s) (Impoundments or Pits) Name: Name: Address: Address: \_\_\_\_ \*Please attach additional forms if redesary WV Department of Environmental Protection

API NO. 47-017 0 17 0 6 9 8 7

OPERATOR WELL NO. Brushy Unit 5V

Well Pad Name: Brushy 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.dep.wv.gov/oil-and-gas/pages/default.aspx">www.dep.wv.gov/oil-and-gas/pages/default.aspx</a>.

## 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 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 of 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 of 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 of the poise light dust and voletile expense compounds reperted by the drilling of the prior to the roles. Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of the contain 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)

API NO. 47 0 1706987

OPERATOR WELL NO. Brushy Unit 5V

Well Pad Name: Brushy 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 with the secretary days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written application of the applicant's proposed well work to the Secretary at:

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

WV Department or 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) 4701706987

OPERATOR WELL NO. Brushy Unit 5V Well Pad Name: Brushy 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.

Office Of Oil and Gas

DEC 11 2000

Wy Department of Environmental Protection

4701706987

WW-6A (8-13)

API NO. 47-017

OPERATOR WELL NO. Brushy Unit 5V

Well Pad Name: Brushy Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation

Telephone: (303) 357-7373

Email: cmarvel@anteroresources.com

Address 1615 Wynkoop Street

Facsimile: 303-357-7315

Denver, CO 80202

## 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>.

CARLY RAYNE WREN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20224038743
MY COMMISSION EXPIRES 10/05/2026

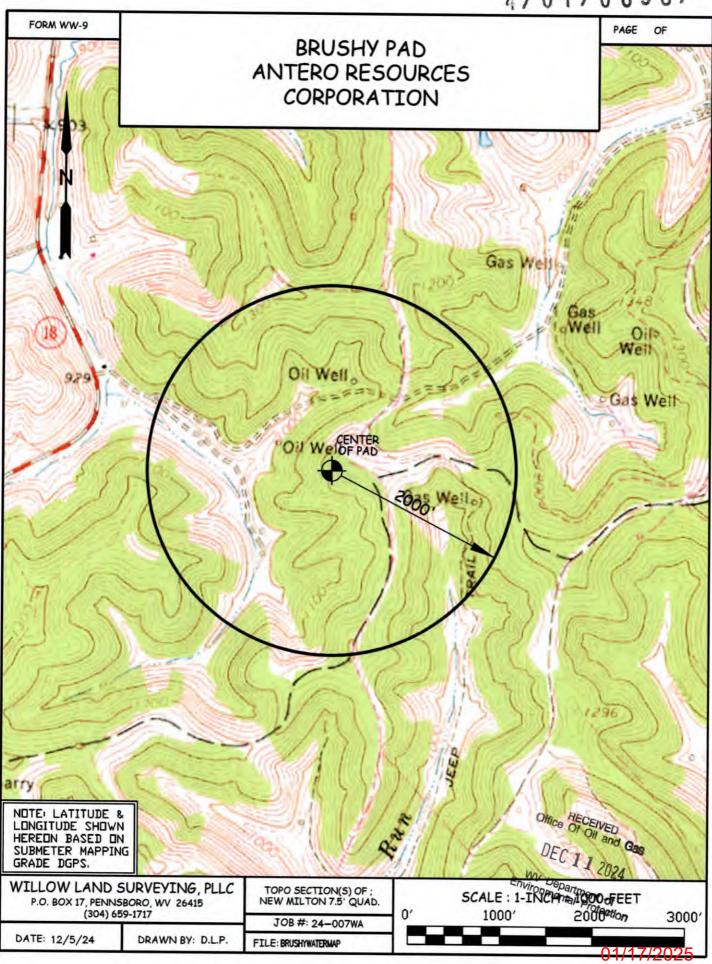
Subscribed and sworn before me this 9 day of Dec, 2024.

My Commission Expires 10-5-20

Office RECEIVED Off and Gas

DEC 1 1 2024

Environmental Protection



## WW-6A CERTIFIED MAIL RECEIPT NOTICE OF APPLICATION

Cut on dotted line.

## Instructions

- Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- Place your label so it does not wrap around the edge of the package.
- Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- Mail your package on the "Ship Date" you selected when creating this label.

## Click-N-Ship® Label Record

## USPS TRACKING #: 9405 5036 9930 0728 7829 04

Trans. #: 606670985 Print Date: 12/09/2024 Ship Date: 12/10/2024 Expected Delivery Date: 12/13/2024 Priority Mail® Postage: \$19.30
Total: \$19.30

rom: CARLY WREN 1615 WYNKOOP ST DENVER CO 80202-1106

To: SANDRA E ERWIN 12222 WV ROUTE 18 S NEW MILTON WV 26411-6086

\* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be regimented driffice. So flows from the print date.

DEC 1 1 2024

UNITED STATES Thank you for shipping with the United States Postal Service!

Check the status of your shipment on the USPS Tracking® page at usps: tom

4701706987

## 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

		1	arred in writing by the surface bytter.
Notice Time Date of Not	e Requirement: Notice shall be ice: 11/20/2024	provided at least TEN (10) days prior to filing a  Date Permit Application Filed: 12/10/2024	permit application.
Delivery me	ethod pursuant to West Virgini	a Code § 22-6A-16(b)	
☐ HAND	■ CERTIFIED M	IATI	
DELIV		CEIPT REQUESTED	
receipt reque drilling a ho of this subse	W. Va. Code § 22-6A-16(b), at leasted or hand delivery, give the sorizontal well: <i>Provided</i> , That notice was of the date the notice was	east ten days prior to filing a permit application, urface owner notice of its intent to enter upon the otice given pursuant to subsection (a), section tents provided to the surface owner: Provided, how	ne surface owner's land for the purpose of en of this article satisfies the requirements wever. That the notice requirements of this
and if availa	ble, facsimile number and electro	ourface owner. The notice, if required, shall include onic mail address of the operator and the operator	or's authorized representative.
Name: Sandra	ereby provided to the SURF	ACE OWNER(s): Name:	
	222 WV Route 18 S	Address:	
New Milton, WV		Address.	
State: County: District:	West Virginia Doddridge New Milton	UTM NAD 83 Easting: Northing: Public Road Access:	526291.43m 4334207.18m
Quadrangle:			Toms Fork
Watershed:	Headwaters Middle Island Creek	Generally used farm name:	Sandra E. Erwin
Pursuant to acsimile nu related to ho	mber and electronic mail addre orizontal drilling may be obtaine	6(b), this notice shall include the name, address of the operator and the operator's authorized from the Secretary, at the WV Department of 25304 (304-926-0450) or by visiting www.de	ed representative. Additional information
	ereby given by:		
	Or: Antero Resources Corporation	Authorized Representative:	Mallory Turco
Address:	1615 Wynkoop St.	Address:	1615 Wynkoop St.
	Denver, CO 80202		Denver, CO 80202
elephone:	303-357-7182	Telephone:	303-357-7182
Email:	mturco@anteroresources.com	Email:	mturco@anteroresources.com
acsimile:	303-357-7315	Facsimile:	303-357-7315
Oil and Ga	s Privacy Natice		Ose BEO.

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone numbers part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal courses 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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

# CERTIFIED MAIL RECEIPT WW-6A4 NOTICE OF INTENT TO DRILL

Cut on dotted line.

## Instructions

- Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- Place your label so it does not wrap around the edge of the package.
- Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- Mail your package on the "Ship Date" you selected when creating this label.

## Click-N-Ship® Label Record

# USPS TRACKING #: 9405 5036 9930 0724 1971 84

Trans. #: 606272293
Print Date: 11/20/2024
Ship Date: 11/20/2024
Expected
Delivery Date: 11/23/2024

Priority Mail® Postage: \$10.45 Total: \$10.45

From: CARLY WREN 1615 WYNKOOP ST DENVER CO 80202-1106

To: SANDRA E ERWIN 12222 WV ROUTE 18 S NEW MILTON WV 26411-6086

\* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested or

DEC 1 1 2024

POSTAL SERVICE

Thank you for shipping with the United States Postal Service!

Check the status of your shipment on the USPS Tracking® page at usps.com

WW-6A5 (1/12)

Operator Well No. Brushy Unit 5V

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

Notice Time Date of Notice	Requirement: notice shall be prote: 12/10/2024 Date Pe		o later than the filing pplication Filed: 12/		application.
Delivery met	hod pursuant to West Virginia (	Code §	22-6A-16(c)		
■ CERTI	FIED MAIL		HAND		
	RN RECEIPT REQUESTED	_	DELIVERY		
the planned of required to be drilling of a damages to the	requested or hand delivery, give to operation. The notice required by provided by subsection (b), section chorizontal well; and (3) A propose the surface affected by oil and gas of	he surfa this son ten of ed surfa peratio	ace owner whose lan ubsection shall inclu of this article to a surf ace use and compen ns to the extent the d	d will be used for de: (1) A copy face owner whose sation agreement amages are com	ication, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
Notice is here (at the addres Name: Sandra E	eby provided to the SURFACE of s listed in the records of the sheriff	OWNE at the	R(s) time of notice): Name:		
Address: 1222	2 WV Route 18 S		Addres		
operation on State: County: District:	the surface owner's land for the pu West Virginia Dodridge New Milton	irpose o	of drilling a horizonta  UTM NAD 8  Public Road	al well on the tra Easting: Northing: Access:	526291.43m 4334207.18m Toms Fork
Quadrangle: Watershed:	New Milton Headwaters Middle Island Creek	_	Generally us	ed farm name:	Sandra E. Erwin
Pursuant to W to be provide horizontal we surface affect information re	d by W. Va. Code § 22-6A-10(b) ll; and (3) A proposed surface use ed by oil and gas operations to the elated to horizontal drilling may land located at 601 57th Street, SE,	and co e exter	surface owner whose empensation agreement the damages are coined from the Secre-	e land will be un nt containing an ompensable und tary, at the WV	code section; (2) The information required used in conjunction with the drilling of a n offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting

01/17/2025

WV Department of Environmental Protection

# WW-6A5 CERTIFIED MAIL RECEIPT NOTICE OF PLANNED OPERATION

Cut on dotted line.

## Instructions

- Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- Place your label so it does not wrap around the edge of the package.
- Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- To mail your package with PC Postage®, you
  may schedule a Package Pickup online, hand to
  your letter carrier, take to a Post Office™, or
  drop in a USPS collection box.
- Mail your package on the "Ship Date" you selected when creating this label.

## Click-N-Ship® Label Record

## USPS TRACKING #: 9405 5036 9930 0728 7829 04

Trans. #: 606670985
Print Date: 12/09/2024
Ship Date: 12/10/2024
Expected
Delivery Date: 12/13/2024

Priority Mail® Postage: Total:

\$19.30

From: CARLY WREN

1615 WYNKOOP ST DENVER CO 80202-1106

To: SANDRA E ERWIN 12222 WV ROUTE 18 S NEW MILTON WV 26411-6086

\* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

UNITED STATES Thank you for shipping with the United States Postal Service!

Check the status of your shipment on the USPS Tracking at usps. com

01/17/2025



## 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

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

December 9, 2024

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 Brushy Well Pad, Doddridge County Brushy Unit 5V Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2012-0353 which has been issued to Antero Resources Corporation for access to the State Road for a well site located off Doddridge County Route 54 SLS MP 3.03.

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

G Coordinate Office Of Oil and Gas

WV Department of Environmental Protection

Cc: Carly Wren

**Antero Resources Corporation** 

OM, D-4 File

# List of Anticipated Additives Used for Fracturing or Stimulating Well

Additives	Chemical Abstract Service Number (CAS #)
Fresh Water	7732-18-5
2 Phosphobutane 1,2,4 tricarboxylic acid	37971-36-1
Ammonium Persulfate	7727-54-0
Anionic copolymer	Proprietary
Anionic polymer	Proprietary
BTEX Free Hydrotreated Heavy Naphtha	64742-48-9
Cellulase enzyme	Proprietary
Demulsifier Base	Proprietary
Ethoxylated alcohol blend	Mixture
Ethoxylated Nonylphenol	68412-54-4
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
Isopropyi 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	1480 8 M 2nd
Sillica, crystalline quartz	O <b>♥6</b> \$1-86-9
Sodium Chloride	7647-14-3
Sodium Hydroxide	1310-73-2 arment of the state o
Sugar	5700 Hente
Surfactant	68439-51-0
Suspending agent (solid)	14808-60-7
Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7
Solvent Naphtha, 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
Hexamthylene Triamine Penta	34690-00-1
Phosphino Carboxylic acid polymer	71050-62-9
Hexamethylene Diamine Tetra	23605-75-5
2-Propenoic acid, polymer with 2 propenamide	9003-06-9
Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5
Diethylene Glycol	111-46-6
Methenamine Rehisthylene nelyppine	100-97-0
Polyethylene polyamine	68603-67-8
Coco amine	61791-14-8
2-Propyn-1-olcompound with methyloxirane	38172-91-7

OPERATOR: Antero	Resources Corp.	WELL NO: Brushy Unit 5V	
PAD NAME: Brushy	Pad		
REVIEWED BY: Mallo	ry Turco	SIGNATURE: MM TIM	

## WELL RESTRICTIONS CHECKLIST

## HORIZONTAL 6A WELL

Well Restr	ictions
<b>✓</b>	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
$\checkmark$	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
$\checkmark$	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 Conditions
$\checkmark$	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
$\checkmark$	At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
	Surface Owner Waiver and Recorded with County Clerk, OR
1	DEP Variance and Permit Conditions
<b>✓</b>	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, Ord Protection
	Surface Owner Waiver and Recorded with County Clerk, Okt Protection
	DEP Variance and Permit Conditions

	LOCATION C	COORDINATES		
SITE LOCATIONS	NSRS11.WV-N	F (NORTH ZONE)	UTM83-17M	
SILL COCATIONS	LATITUDE	LONGITUDE	NORTHING	EASTING
MAIN ACCESS ROAD ENTRANCE	39 158149	-80.697874	4334370.460	526103.037
CENTROID OF WELL PAD	39.156853	-80.695780	4334227.383	526284.481
CENTROID OF 22/26k AST	39.152085	-80.695465	4333698.002	526313.658

GENERAL DESCRIPTION:
THE ACCESS ROAD AND WELL PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF MARCELLUS SHALE GAS WELLS

FLOODPLAIN NOTES: THE PROPOSED SITE LOCATION ENTRANCE IS NOT WITHIN A FLOOD ZONE PER FEMA MAP NUMBER(S) #54017C0250C

MISS UTILITY STATEMENT:
ANTERG RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATION OF UTILITIES PRIOR TO THIS
PROJECT DESIGN; TICKET #2427031816. IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE
START OF CONSTRUCTION FOR THIS PROJECT.

TYLL AND ENVIRONMENTAL CONSULTANTS AND ANTERO RESOURCES WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MM-109)
ROM THE WEST VIRIGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

ENVIRONMENTAL NOTES:
STREAM AND WETLAND DELINEATIONS WERE PERFORMED BY ALLSTAR ECOLOGY (DATED 60/12/2024 AND 09/13/2024). ALLSTAR ECOLOGY PREPARED A STREAM AND WETLAND DELINEATION SAP WHICH VERIFIES AND SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE MAP DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WORDE. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WHITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THE EXHIPT PRIOR TO ENGAGING IN CONSTRUCTION ON THE PROPERTIES DESCRIBED HERBIN. THE DELINEATION SHOWN ON THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATER OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

## GEOTECHNICAL NOTES:

THE GEOTECHNICAL ANALYSIS WAS PERFORMED BY CIVIL & ENVIRONMENTAL, CONSULTANTS, INC. AND SUMMARIZES THE FIELD TESTING AND EXPLORATION.

- RESTRICTIONS NOTES.

  1. THERE ARE NO LAXES OR RESERVOIRS WITHIN 100 FEET OF THE WELL FAD AND LOD.

  2. THERE ARE NO WETLANDS TO BE DISTURBED OR MITHIN 100 OF THE WELL FAD LOD.

  3. THERE ARE NO MATURALLY PRODUCING TROUT STEMAN WITHIN 100 FEET OF THE WELL FAD AND LOD.

  4. THERE ARE NO BROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1,000 FEET OF THE WELL FAD AND LOD.

  5. THERE ARE NO ADPRACH TOSITING WATER WELL SO DEVELOPED SHINGS WITHIN 500 FEET OF THE WELL SHING DRILLED.

  6. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 825 FEET OF THE CENTER OF THE WELL FAD.

  7. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2.500 SQUARE FEET WITHIN 605 FEET OF THE CENTER OF THE WELL PAD.

### PROJECT CONTACTS:

OPERATOR: ANTERO RESOURCES CORPORATION

535 WHITE DAKS BLVD BRIDGEPORT, WV 26330 PHONE (304) 842-4100 FAX: (304) 842-4102

ELI WAGONER - ENVIRONMENTAL & REGULATORY MANAGER OFFICE (304) 842-4668 CELL (304) 475-9770

AARON KUNZLER - CONSTRUCTION MANAGER OFFICE (304) 842-4191

ROBERT WIRKS - DESIGN MANAGER OFFICE (304) 842-4100 CELL (304) 627-7406

SCOTT HOFFER - UTILITY SUPERVISOR CELL: (304) 515-8899

MARK HUTSON - LAND AGENT CELL 304-889-8315 JON MCEVERS - SVP OPERATIONS OFFICE: 303-357-5799

ENGINEER/SURVEYOR: CIVIL & ENVIRONMENTAL CONSULTANTS, INC. JOSEPH D. ROBINSON, PE - PROJECT MANAGER/ENGINEER OFFICE (200) 833-3119 FAX: (304) 933-3327 CELL (443) 308-3606

ALLSTAR ECOLOGY

1582 MEADOWDALE RD FAIRMONT, WV 26554 OFFICE (304) 816-3940 TOLL FREE (866) 213-2666

GEOTECHNICAL CONSULTANTS, INC.

KOW ESHUN, PE - VICE PRESIDENT OFFICE (304) 833-3119 DIRECT (304) 848-7142 CELL (310) 774-1716

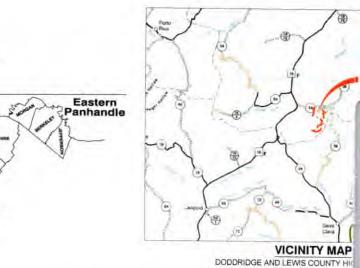
# **BRUSHY WELL PAD EX** PERMIT SITE PL **NEW MILTON AND COVE ANTERO RESOUR**

LAT./LONG: N 39.156853° W -80.6 (APPROXIMATE CENTER OF PRO



## LOCATION MAP

NEW MILTON USGS 7.5 QUA SCALE IN FEET 1 INCH = 1000 FEET



SCALE IN FEET MILES 1 INCH = 1 MILE



WEST VIRGI TWO BUS BEFORE YOU STATE OF W

PENNSYLVANIA PROJECT MARYLAND CLAY Capital PLAN REPRODUCTION WARNING THE PLANS HAVE BEEN CREATED ON ANSI D (22" X 34") SHEETS FOR REDUCTIONS. REFER TO GRAPHIC SCALE. THE PLANS HAVE BEEN CREATED FOR FULL COLDER PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLDER SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES. \*\*IVAFINING\*\*: INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING

# PANSION DISTRICTS CES

SHEET INDEX

IEET-INDEX

I COVER SHEET
GENERAL NOTES
GENERAL NOTES
GENERAL NOTES
MATERIAL QUANTITIES
MASTER LEGEND
DUSTING CONDITIONS
OVERALL SITE PLAN
SITE PLAN
SITE PLAN
SITE PLAN
SITE PLAN
SITE PLAN
PROFILES AND SECTIONS

5780° ECT)



- 1	IMITS OF DISTURE	BANCE PARCEL	BREAK UPS -BRU	SHY WELL PAD	
	DODE	RIDGE COUNT	Y, WEST VIRGINIA	4	_
OWNER	TM-PARCEL	DEED-PAGE	TOTAL ACRES	TYPE OF DISTURBANCE	ACERAGE
SANDRA E. ERWIN	19-11	WB80-39	104.00	PARCEL INFORMATION	
				MAIN ACCESS ROAD	5.97
				WELL PAD	4.53
				SPOIL PILE 1	4.39
				PARCEL TOTAL	14.89
SANDRA E. ERWIN	19-12	W880-39	79.3	PARCEL INFORMATION	/ 1
				MAIN ACCESS ROAD	20.23
				WELL PAD	2.37
				PARCEL TOTAL	22.60
				TOTAL	37.49

BANK GRADING VOLUMES								
DESCRIPTION	GUT (GY)	FILL (CY)	NET (CY)					
MAIN ACCESS ROAD	10,388	27,413	-17.025					
WELL PAD	41 904	15,306	26,598					
SPOIL-1	0	9,573	-9,573					
TOTAL	52,292	52,292	0					

C804 PROFILES AND SECTIONS
C805 PROFILES AND SECTIONS
C806 PROFILES AND SECTIONS
C807 PROFILES AND SECTIONS
C808 PROFILES AND SECTIONS
C809 PROFILES AND SECTIONS
C810 PROFILES AND SECTIONS
C811 PROFILES AND SECTIONS
C812 PROFILES AND SECTIONS
C813 PROFILES AND SECTIONS
C813 PROFILES AND SECTIONS
C814 PROFILES AND SECTIONS
C815 PROFILES AND SECTIONS
C816 PROFILES AND SECTIONS
C816 PROFILES AND SECTIONS
C817 PROFILES AND SECTIONS
C817 PROFILES AND SECTIONS
C817 PROFILES AND SECTIONS
C817 PROFILES AND SECTIONS

NOTES: ALL STOCKPILES WITH A SLOPE STEEPER THAN 3:1 REQUIRE A 1:1 BLEND RATIO NO TOPSPOIL REMOVAL CALCULATED.

L.O.D. AREAS					
DESCRIPTION	ACRES				
MAIN ACCESS ROAD	26.20				
WELL PAD	6.90				
SPOIL PILE 1	4.39				
TOTAL	37.49				
WOODED	9.56				

ANTERO RESOURCES

REVISION RECORD

Bridgeport, WV 26330 120 Genesis Boulevard

Ph: 304.933,3119

Civil & Environmental Consultants, Inc.

www.cecinc.com

C802 DETAILS
C803 DETAILS
C804 DETAILS
C804 DETAILS
C805 DETAILS
C806 DETAILS
C807 OVERALL RECLAMATION PLAN
C901 RECLAMATION PLAN
C904 RECLAMATION PLAN
C904 RECLAMATION PLAN
C904 RECLAMATION PLAN



	BRUSHY WELL LEGEND										
WELL HEAD LETTER	WELL NAME	ELEVATION	WV NORTH NAD 27	WV NORTH NAD 83 (2011)	NAD83 UTM-17M	NAD 83	NAD 27				
2	BRUSHY 5V	1213.00	N: 241399.400	N: 241434.874	N: 4334207 184	39' 09' 24.03"	39" 09' 23.71"				
	300307.00	1213,00	E: 1660883.260	E: 1629443.366	E: 526291.428	80' 41' 44.53"	-80" 41" 45 17"				



STREAM IMPACT TABLE									
STREAM	ОНWМ		IMPACT	PERMANENT	CONTRACTOR CONTRACTOR NO.	PERMANENT Impact Area	TOTAL LENGTH		
	Width (FT)	Depth (FT)		(LF)	(LF)	(AC)	(LF)		
ASE_STREAM21 (EPH)	0.42	0.08	ACCESS ROAD	102	0	0.001	102		
ASE_STREAM22 (EPH)	0.67	0.17	ACCESS ROAD	304	0	0.005	304		
ASE_STREAM23 (EPH)	0.83	0.17	LOD	4	0	0.000	4		
TOTALS				410	0	0.006	410		

≩ ANTERO RESOURCES **BRUSHY WELL PAD** DODDRIDGE COUNTY, NEW MILTON & COVE DISTRICTS

> JES DBS 346-081 DECEMBER 2024 OF AS NOTED OF

STATE OF WEER

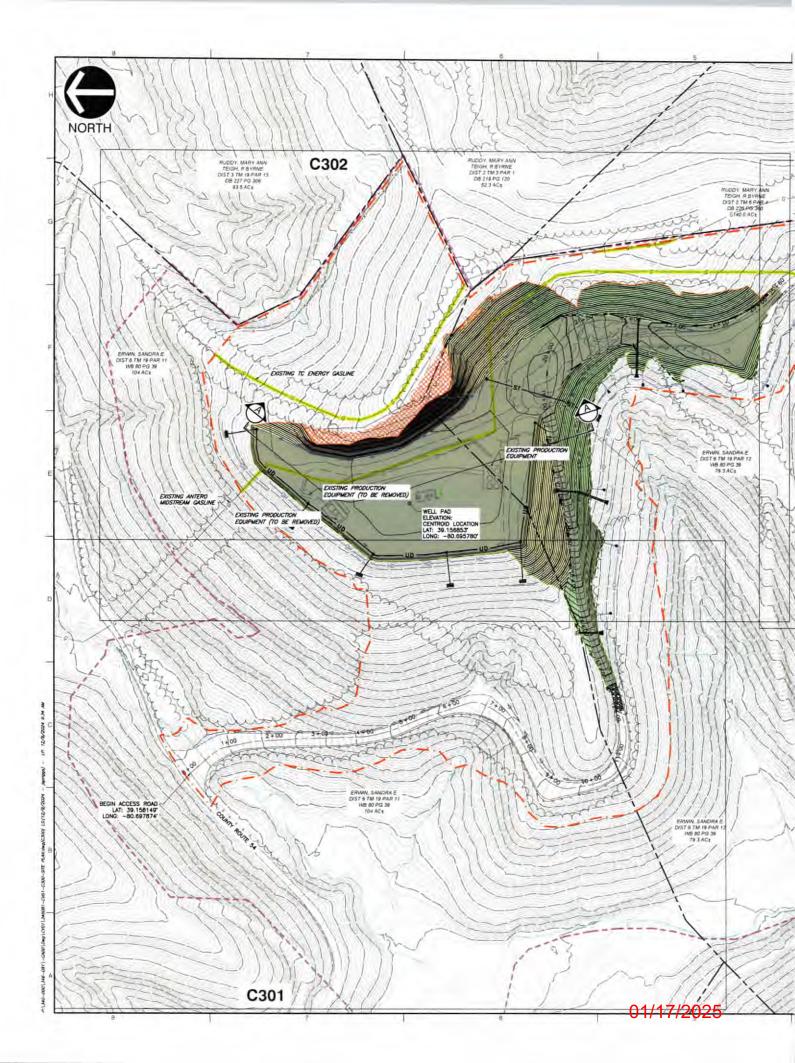
	DATE	DWGSCALE	PROJECT NO	APPROVED BY
C0	O	0	d	AS
4 /14	71	_		•

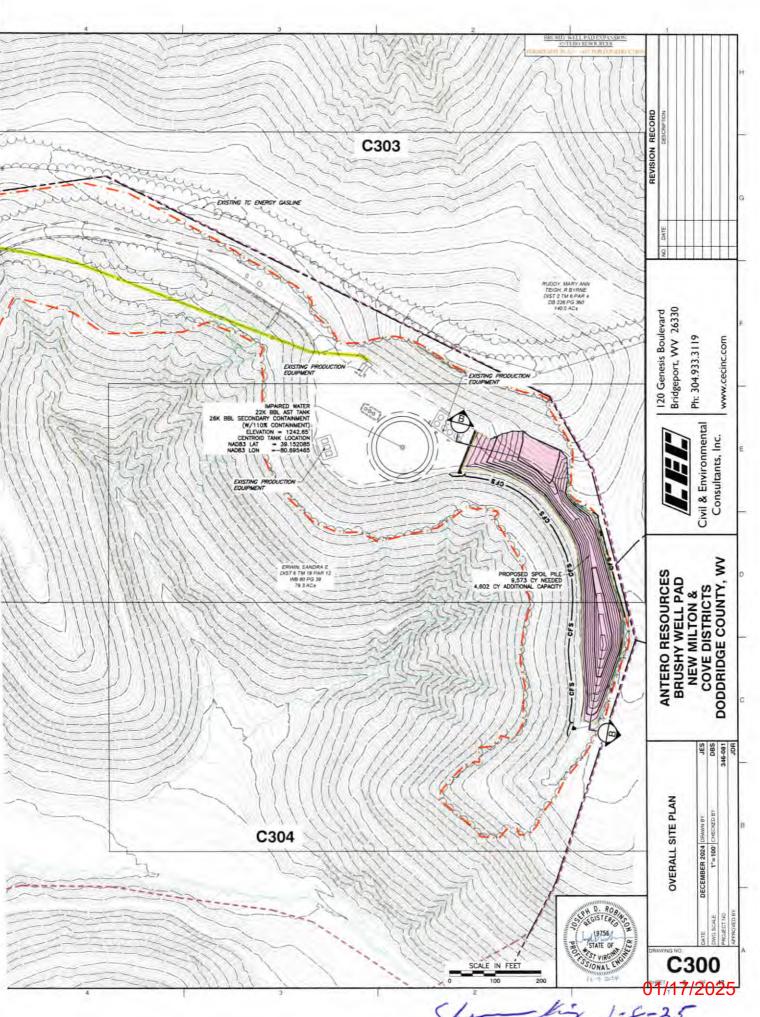
COVER SHEET

JALL S HE NIA

MAPS

1-8-25





## **GENERAL DESCRIPTION:**

THE ACCESS ROAD AND WELL PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF MARCELLUS SHALE GAS WELLS

THE PROPOSED SITE LOCATION ENTRANCE IS NOT WITHIN A FLOOD ZONE PER FEMA MAP NUMBER(S) #54017C0250C

ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATION OF UTILITIES PRIOR TO THIS PROJECT DESIGN; TICKET #2427031816. IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

## **ENTRANCE PERMIT**

CIVIL AND ENVIRONMENTAL CONSULTANTS AND ANTERO RESOURCES WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MM-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

## **ENVIRONMENTAL NOTES:**

STREAM AND WETLAND DELINEATIONS WERE PERFORMED BY ALLSTAR ECOLOGY (DATED 09/12/2024 AND 09/13/2024). ALLSTAR ECOLOGY PREPARED A STREAM AND WETLAND DELINEATION MAP WHICH VERIFIES AND SUMMARIZES THE RESULTS OF THE FIELD AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THE EXHIBIT PRIOR TO ENGAGING IN CONSTRUCTION ON THE PROPERTIES DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATER OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

## **GEOTECHNICAL NOTES:**

THE GEOTECHNICAL ANALYSIS WAS PERFORMED BY **CIVIL & ENVIRONMENTAL**, **CONSULTANTS**, **INC.** AND SUMMARIZES THE FIELD TESTING AND EXPLORATION.

## RESTRICTIONS NOTES

- THERE ARE NO LAKES OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD.
- THERE ARE NO WETLANDS TO BE DISTURBED OR WITHIN 100' OF THE WELL PAD LOD.
- THERE ARE NO NATURALLY PRODUCING TROUT STEAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.

## PROJECT CONTACTS:

## **ANTERO RESOURCES CORPORATION** 535 WHITE OAKS BLVD. BRIDGEPORT, WV 26330 PHONE: (304) 842-4100

FAX: (304) 842-4102 ELI WAGONER - ENVIRONMENTAL & REGULATORY MANAGER

OFFICE: (304) 842-4068 CELL: (304) 476-9770 AARON KUNZLER - CONSTRUCTION MANAGER OFFICE: (304) 842-4191

ROBERT WIRKS - DESIGN MANAGER OFFICE: (304) 842-4100 CELL: (304) 627-7405

SCOTT HOFFER - UTILITY SUPERVISOR CELL: (304) 615-8699



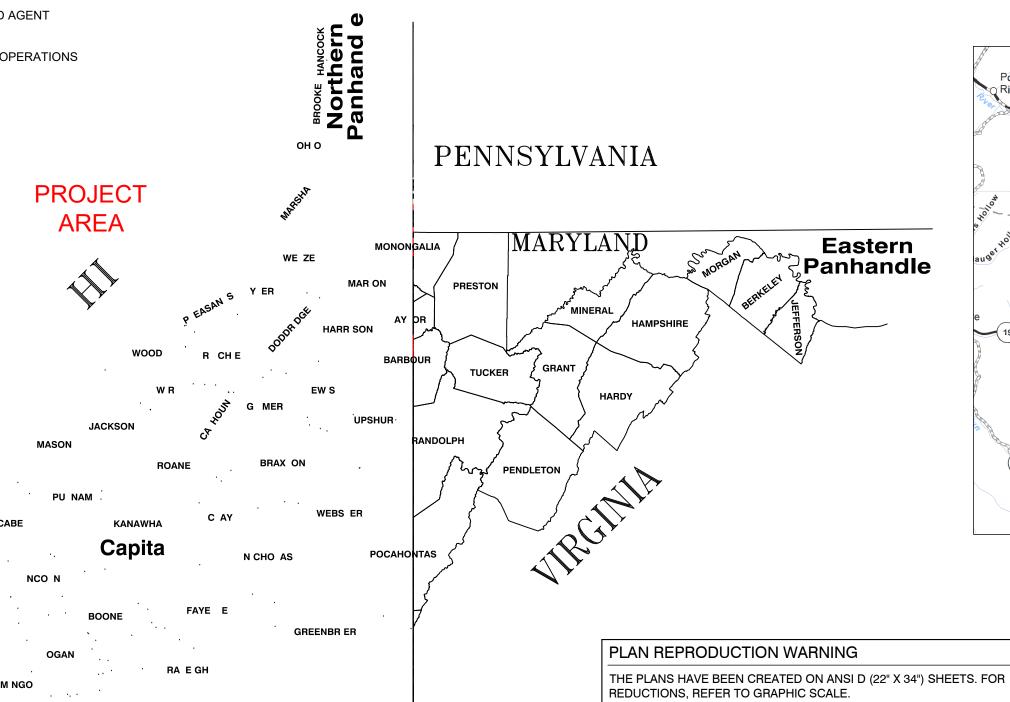
## **ENGINEER/SURVEYOR: CIVIL & ENVIRONMENTAL CONSULTANTS, INC.** JOSEPH D. ROBINSON, PE - PROJECT MANAGER/ENGINEER OFFICE: (304) 933-3119 FAX: (304) 933-3327 CELL: (443) 366-2606

## **ENVIRONMENTAL: ALLSTAR ECOLOGY** 1582 MEADOWDALE RD. FAIRMONT, WV 26554

OFFICE: (304) 816-3940 TOLL FREE: (866) 213-2666

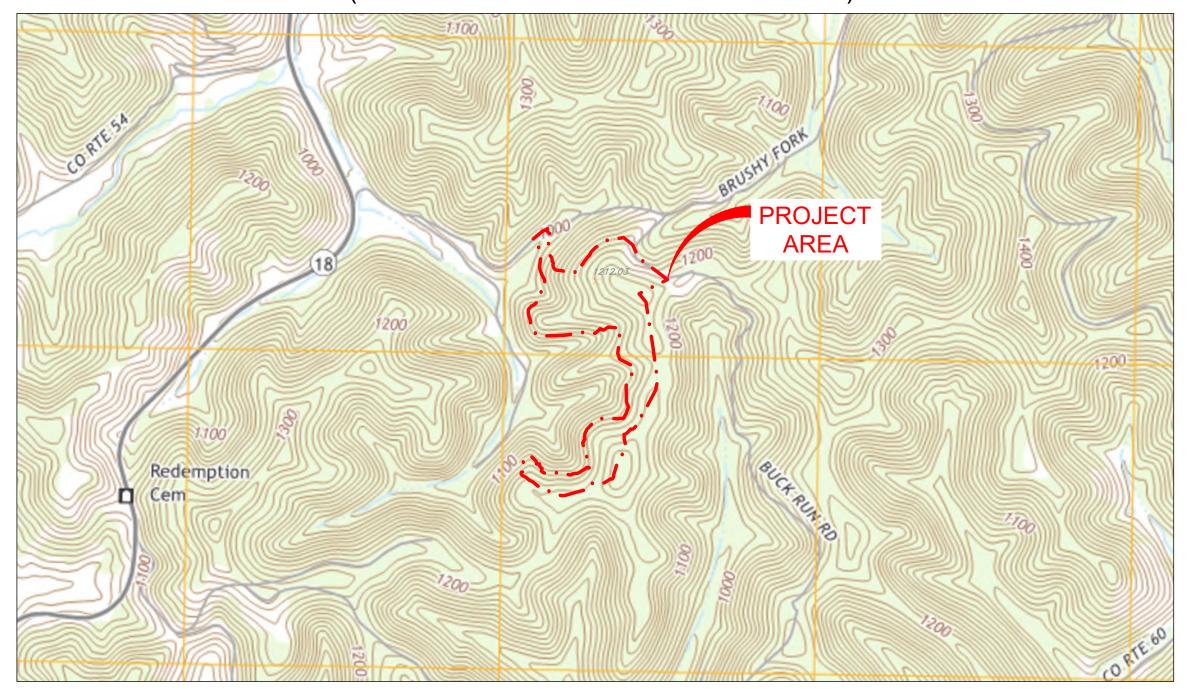
**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.** 

KOW ESHUN, PE - VICE PRESIDENT OFFICE: (304) 933-3119 DIRECT: (304) 848-7142 CELL: (310) 774-1716



# **BRUSHY WELL PAD EXPANSION** PERMIT SITE PLAN **NEW MILTON AND COVE DISTRICTS ANTERO RESOURCES**

LAT./LONG: N 39.156853° W -80.695780° (APPROXIMATE CENTER OF PROJECT)



### C000 COVER SHEET C604 PROFILES AND SECTIONS C618 PROFILES AND SECTIONS C001 GENERAL NOTES C605 PROFILES AND SECTIONS C619 PROFILES AND SECTIONS C002 MATERIAL QUANTITIES C606 PROFILES AND SECTIONS C003 MASTER LEGEND C607 PROFILES AND SECTIONS

C620 PROFILES AND SECTIONS C621 PROFILES AND SECTIONS C100 EXISTING CONDITIONS C300 OVERALL SITE PLAN C609 PROFILES AND SECTIONS C623 PROFILES AND SECTIONS C610 PROFILES AND SECTIONS C624 PROFILES AND SECTIONS C611 PROFILES AND SECTIONS

C303 SITE PLAN C612 PROFILES AND SECTIONS C304 SITE PLAN C613 PROFILES AND SECTIONS C600 PROFILES AND SECTIONS C614 PROFILES AND SECTIONS C615 PROFILES AND SECTIONS C602 PROFILES AND SECTIONS C616 PROFILES AND SECTIONS

C301 SITE PLAN C628 PROFILES AND SECTIONS C800 DETAILS C603 PROFILES AND SECTIONS C617 PROFILES AND SECTIONS

C807 DETAILS C900 OVERALL RECLAMATION PLAN C901 RECLAMATION PLAN C902 RECLAMATION PLAN C903 RECLAMATION PLAN C904 RECLAMATION PLAN

C803 DETAILS

C804 DETAILS

ERMIT SITE PLAN - NOT FOR CONSTRUCTION

LIMITS OF DISTURBANCE PARCEL BREAK UPS -BRUSHY WELL PAD											
DODDRIDGE COUNTY, WEST VIRGINIA											
OWNER	OWNER TM-PARCEL DEED-PAGE TOTAL ACRES TYPE OF DISTURBANCE ACERAGE										
SANDRA E. ERWIN	19-11	WB80-39	104.00	PARCEL INFORMATION							
				MAIN ACCESS ROAD	5.97						
				WELL PAD	4.53						
				SPOIL PILE 1	4.39						
				PARCEL TOTAL	14.89						
SANDRA E. ERWIN	19-12	WB80-39	79.3	PARCEL INFORMATION							
				MAIN ACCESS ROAD	20.23						
				WELL PAD	2.37						
				PARCEL TOTAL	22.60						
				TOTAL	37.49						

BANK GRADING VOLUMES								
DESCRIPTION	CUT (CY)	FILL (CY)	NET (CY)					
MAIN ACCESS ROAD	10,388	27,413	-17,025					
WELL PAD	41,904	15,306	26,598					
SPOIL-1	0	9,573	-9,573					
TOTAL	52,292	52,292	0					

ALL STOCKPILES WITH A SLOPE STEEPER THAN 3:1 REQUIRE A 1:1 BLEND RATIO

NO TOPSPOIL REMOVAL CALCULATED

	DESCRIPTION	ACRES
	MAIN ACCESS ROAD	26.20
	WELL PAD	6.90
	SPOIL PILE 1	4.39
	TOTAL	37.49
	WOODED	9.56

L.O.D. AREAS

**LOCATION MAP NEW MILTON USGS 7.5' QUAD** SCALE IN FEET

1 INCH = 1000 FEET

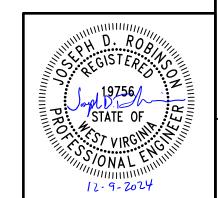


NORTH

<b>A</b>		BRUSHY WELL LEGEND									
	WELL HEAD LETTER	WELL NAME	ELEVATION	WV NORTH NAD 27	WV NORTH NAD 83 (2011)	NAD83 UTM-17M	NAD 83	NAD 27			
	7	BRUSHY 5V	1213.00'	N: 241399.400	N: 241434.874	N: 4334207.184	39° 09' 24.03"	39° 09' 23.71"			
		BROSHT SV	1213.00	E: 1660883.260	E: 1629443.366	E: 526291.428	-80° 41' 44.53"	-80° 41' 45.17"			

STREAM IMPACT TABLE								
STREAM	OH	IWM	IMPACT	PERMANENT TEMPORARY		PERMANENT Impact Area	TOTAL LENGTH	
	Width (FT)	Depth (FT)		(LF)	(LF)	(AC)	(LF)	
ASE_STREAM21 (EPH)	0.42	0.08	ACCESS ROAD	102	0	0.001	102	
ASE_STREAM22 (EPH)	0.67	0.17	ACCESS ROAD	304	0	0.005	304	
ASE_STREAM23 (EPH)	0.83	0.17	LOD	4	0	0.000	4	
TOTALS				410	0	0.006	410	

**APPROVED** WVDEP OOG



ANTE BRU

AWING NO.: **C000** 

SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES. \*WARNING\*\*: INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING.

THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY

WEST VIRGINIA STATE LAW REQUIRES THAT YOU CALL TWO BUSINESS DAYS BEFORE YOU DIG IN THE STATE OF WEST VIRGINIA IT'S THE LAW!

**VICINITY MAP** 

1 MILES 1 INCH = 1 MILE

DODDRIDGE AND LEWIS COUNTY HIGHWAY MAPS SCALE IN FEET

CALL BEFORE

YOU DIG!

