

west virginia department of environmental protection

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

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

Monday, November 21, 2022 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET

DENVER, CO 80202

Re:

Permit approval for GENEVIEVE 5V

47-017-06940-00-00

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

Operator's Well Number: GENEVIEVE 5V

Farm Name: ANTERO RESOURCES CORP

U.S. WELL NUMBER: 47-017-06940-00-00

Horizontal 6A New Drill

Date Issued: 11/21/2022

API	Number:	
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PERMIT CONDITIONS

4701706940

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

- 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. 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. Genevieve Unit 5V
Well Pad Name: Genevieve Pad

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

1) Well Operate	or: Antero	Resources (Corpora	494507062	017-Dodd	Irid West Uni	West Union 7.5'
, ,				Operator ID	County	District	Quadrangle
2) Operator's V	Vell Numbe	r: Genevieve	Unit 5V	Well Pa	d Name: Ge	enevieve Pad	
3) Farm Name/	Surface Ow	ner: Antero R	esources	Corp. Public Ro	ad Access:	Route 18N	
4) Elevation, cu	urrent grour	nd: <u>885'</u>	Ele	evation, proposed	post-constru	uction: <u>~885'</u>	
5) Well Type	(a) Gas Other	<u>x</u>	Oil	Und	lerground Ste	orage	
	(b)lf Gas	Shallow	Х	Deep			-DW
		Horizontal	<u>X</u>	_ 			10/27/2021
6) Existing Pad	l: Yes or No	, <u>No</u>			_		10 (A · · ·
7) Proposed Ta	irget Forma	tion(s), Depth	(s), Antic	ipated Thickness	and Expecte	d Pressure(s):	
Marcellus Sh	nale: 7300' T	VD, Anticipate	d Thickne	ss- 55 feet, Assoc	iated Pressu	re- 2850#	
8) Proposed To	tal Vertical	Depth: 7300	סעד יכ				<u> </u>
9) Formation a			Marcellus	3			
10) Proposed T	Total Measu	red Depth:	7300'				
11) Proposed H	Horizontal L	eg Length:)' *Oper	n to modification	at a later d	ate	
12) Approxima		_	pths:	308', 521'			
13) Method to	Determine	Fresh Water [epths:	47017023190000 Offset v	vett records. Depth.	s have been adjusted	according to surface elevations.
14) Approxima							
15) Approxima	ate Coal Sea	ım Depths: N	lone Anti	cipated		<u>.</u>	
16) Approxima	ate Depth to	Possible Voi	d (coal m	ine, karst, other):	None Antic	cipated	
17) Does Propedirectly overly				ms Yes		No X	
(a) If Yes, pro	oviđe Mine	Info: Name	;				
() h-		Depth			•		
		Seam:					
		Owne	r:			-	

API NO. 47- 617 - 1 0 3 4 0

OPERATOR WELL NO. Genevieve Unit 5V

Well Pad Name: Genevieve 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	79#	80'	80'	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	571'	571'	CTS, 594 Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	3200'	3200'	CTS, 1303 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	7300'	7300'	CTS, 912 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

50W 10/27/2022

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		

WW-6B (10/14)

API NO. 47- 017 -

OPERATOR WELL NO, Genevieve Unit 5V

Well Pad Name: Genevieve 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:

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 24.86 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 7.69 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:

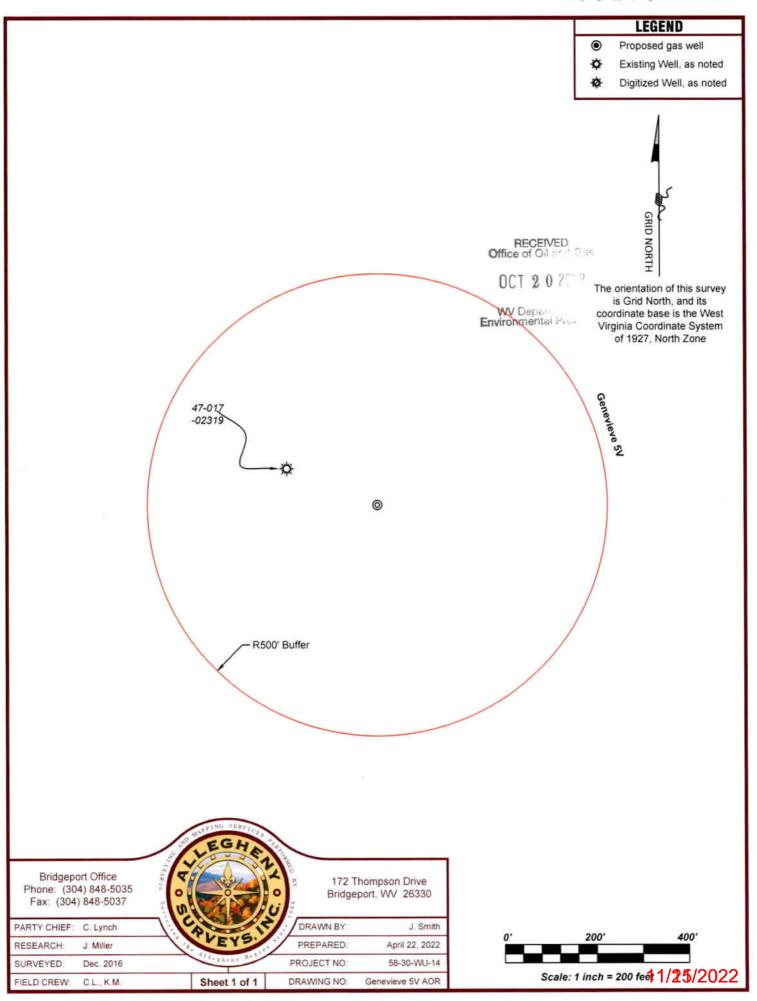
Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

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.

^{*}Note: Attach additional sheets as needed.



Well Name	Well Number	Operator	Historical Operator	£	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perfid
BETTY JANE LANGRITT	1	PILLAR ENERGY LLC	KEY OIL INC	5,241	5080 - 5146	Alexander	Weir Berea

Office of Oil and Gas

OCT 2 0 2022

W Department of Environmental Protection

WW-9 (4/16)

API Number	47 -	017	

Operator's Well No. Genevieve Unit 5V

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

TEODS COTTINGS DISTOSAL & RECEASIANT TO CTEAU
Operator Name Antero Resources Corporation OP Code 494507062
Watershed (HUC 10) Headwaters Middle Island Creek Quadrangle West Union 7.5'
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No
Will a pit be used? Yes No V
If so, please describe anticipated pit waste: No pil will be used at this site (Drilling and Flowback Fluids will be stored in tanks. Cuttings will be tanked and hauled off site.)
Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A
Proposed Disposal Method For Treated Pit Wastes: Land Application 10/27/2022
■ Underground Injection (UIC Permit Number *UIC Permit # will be provided on Form WR-34
Reuse (at API Number_Future permitted well locations when applicable. API# will be provided on Form WR-34
Off Site Disposal (Supply form WW-9 for disposal locatior(Meadowfill Landfill Permit #SWF-1032-98) Northwestern Landfill Permit #SWF-1025/ WV0109410
Wetzel Co Landfill Permit #SWF-1021
Will closed loop system be used? If so, describe: Yes, fluids stored in tanks, cuttings removed offsite and taken to landfill.
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Surface - Air/Freshwater, Intermediate - Doubl/Suff Fourt, Production - Water Based Mud
-If oil based, what type? Synthetic, petroleum, etc. Synthetic
Additives to be used in drilling medium? Please See Attachment
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Drill cuttings stored in tanks, removed offsite and taken to landfill.
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A
-Landfill or offsite name/permit number? Meadowfill Landfill (Permit #SWF-1032-98), Northwestern Landfill (Permit #SWF-1025/WV0109410)
Wetzel Co Landfill (Permit #SWF-1021)
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Company Official Signature Gretchen Kohler Company Official Title Director of Environmental & Regulatory Compliance
Subscribed and sworn before me this 9 day of Oct , 2022
Ciarre Blair Notary Public DIANE BLAIR NOTARY PUBLIC
Subscribed and sworn before me this 9 day of Oct . 2022 Notary Public DIANE BLAIR NOTARY PUBLIC STATE OF COLORADO NOTARY ID 19994011871 My commission expires 27 Apr 2024 My commission expires 27-Apr 2024

Form WW-9

4701706940 Operator's Well No. Genevieve Unit 5V a in

Proposed Revegetation Treatme	nt: Acres Disturbed 24.86 a	Prevegetation pH	
Lime 2-4	Tons/acre or to correct to pH	6.5	
Fertilizer type Hay or s	traw or Wood Fiber (will be used	where needed)	
Fertilizer amount 500		os/acre	
Mulch 2-3	Tons/s	acre	
		(1.32 acres)+AST Pad (3.31 acres)+Topsoil(3.43 acres)+	Spoil Pile(0.91 acres) =24.86 A
	See	d Mixtures	
Temp	orary	Permaner	nt
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Crownvetch	10-15
Field Bromegrass	40	Tall Fescue/Perennial Ryegrass	30 / 20
	ed type (Genevieve Pad Design)	See attached Table IV-4A for additional seed	type (Genevieve Pad Design
see attached Table IV-3 for additional se	to type (denovere i ac besign)	Dec dissolved Teble 17-17-101 decisional secon	.,po (oc.ionoro i da boogi,
ttach: Attach: Atta	ested by surface owner d proposed area for land applic will be land applied, include di area.	*or type of grass seed requeste cation (unless engineered plans including mensions (L x W x D) of the pit, and dir	ed by surface owner
*or type of grass seed requent Attach: Maps(s) of road, location, pit and	ested by surface owner d proposed area for land applic will be land applied, include di area.	*or type of grass seed requeste	ed by surface owner
*or type of grass seed requentation: Maps(s) of road, location, pit and rovided). If water from the pit vecreage, of the land application are thotocopied section of involved	d proposed area for land applicate will be land applied, include disarea. 7.5' topographic sheet.	*or type of grass seed requeste cation (unless engineered plans including mensions (L x W x D) of the pit, and dir	ed by surface owner this info have been mensions (L x W), and
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Form WW-9 Additives Attachment

SURFACE INTERVAL

- 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

7/V Denartment of Environmental Protection 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

RECEIVED
Office of Oil and Gas

OCT 2 0 2022

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



911 Address 2017 WV RT 18 N West Union, WV 26456

Well Site Safety Plan Antero Resources

Well Name: GENEVIEVE UNIT 5V

Pad Location: GENEVIEVE PAD

Doddridge County/West Union District

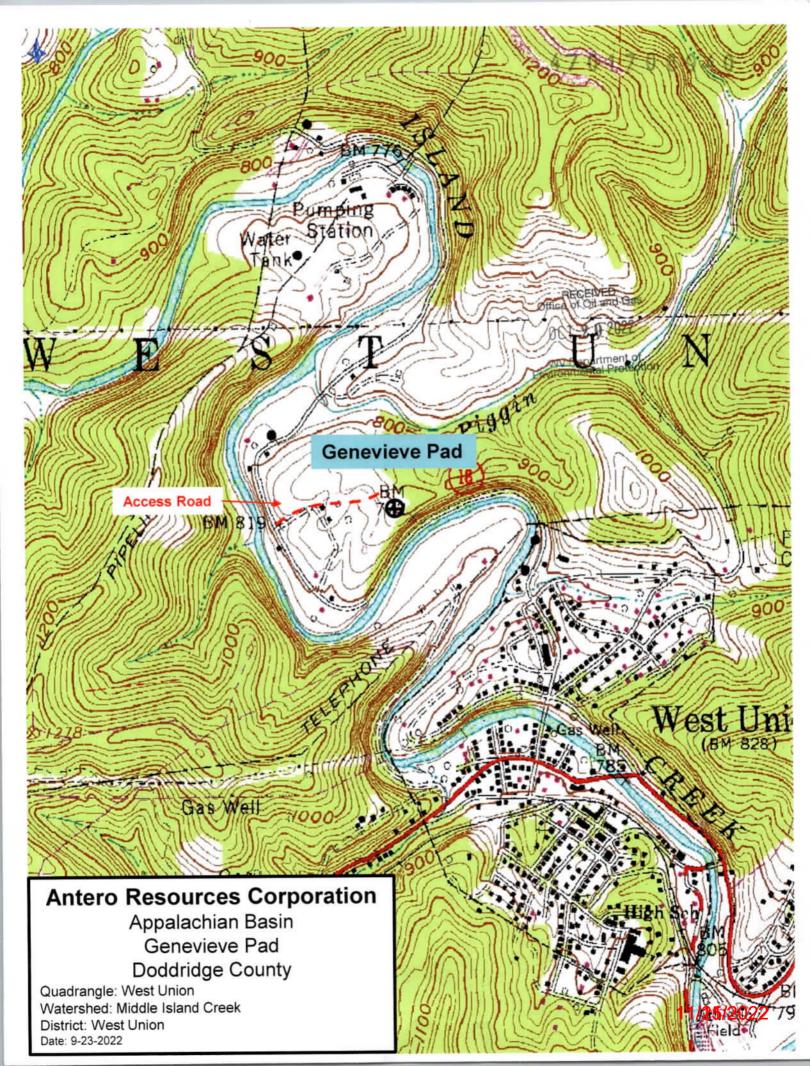
GPS Coordinates:

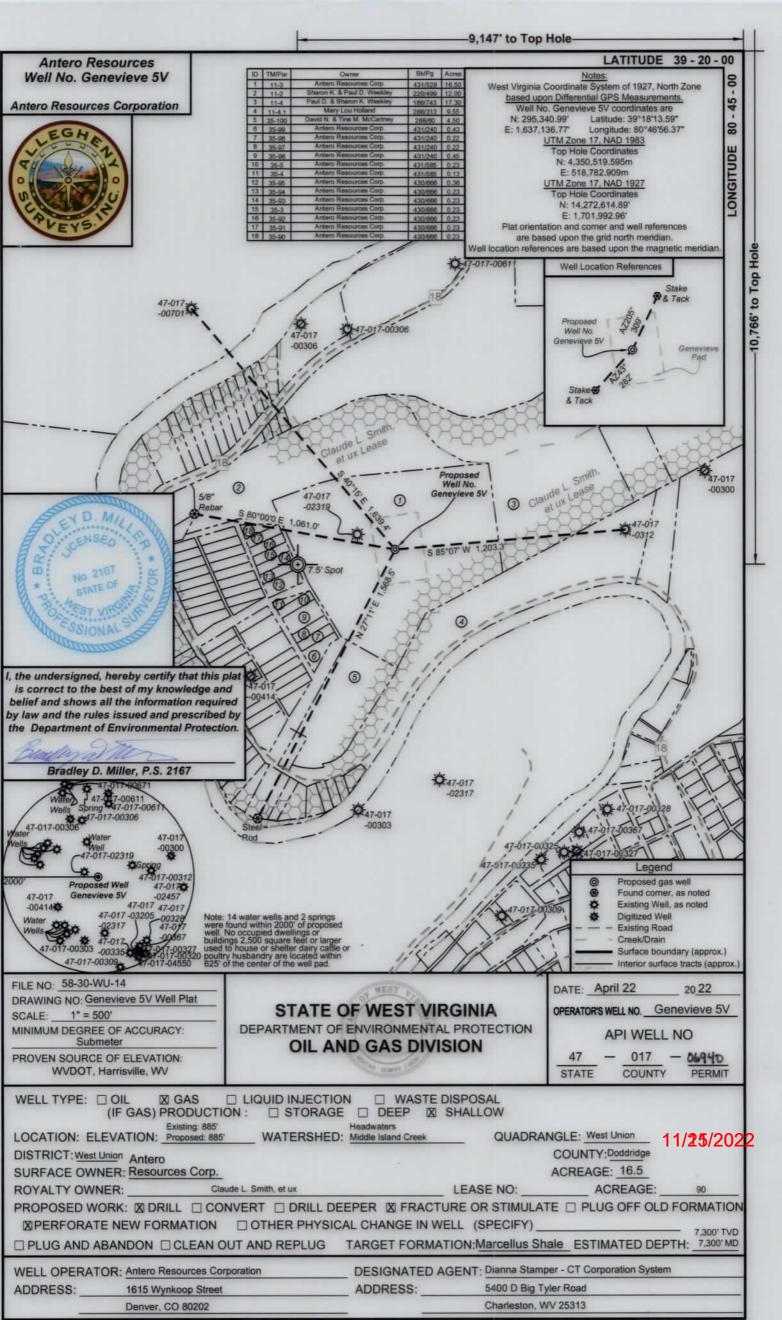
Entrance - Lat 39.302526 / Long -80.785822 (NAD83)
Pad Center - Lat 39.303788/Long -80.781830 (NAD83)

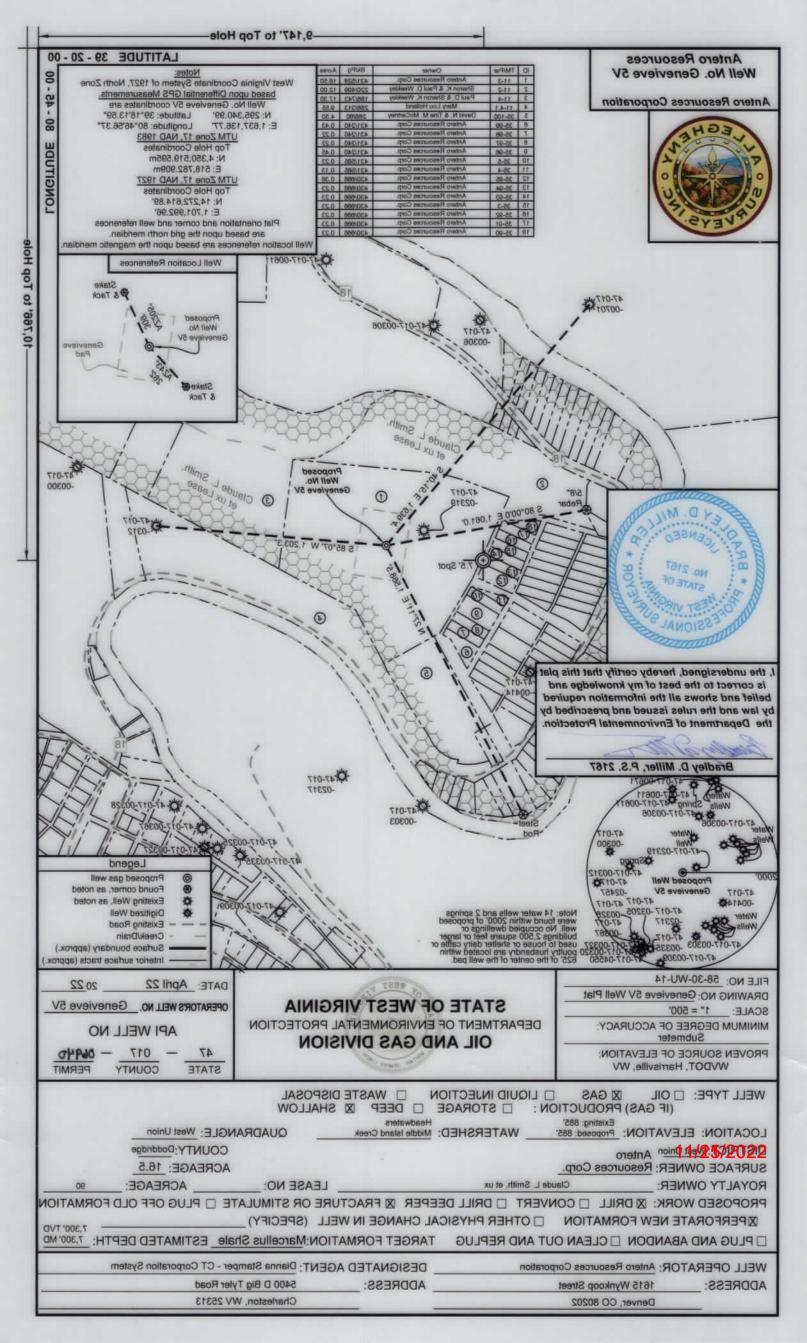
Driving Directions: From US-50, Turn south onto Smithburg RD and travel 0.2 Miles. Turn right onto Smithton Rd and continue 3.4 miles. Continue straight onto WV-18 and travel for 0.5 miles. Turn right to stay on WV-18 and travel for 1.0 mile. The Genevieve lease road is on the right.

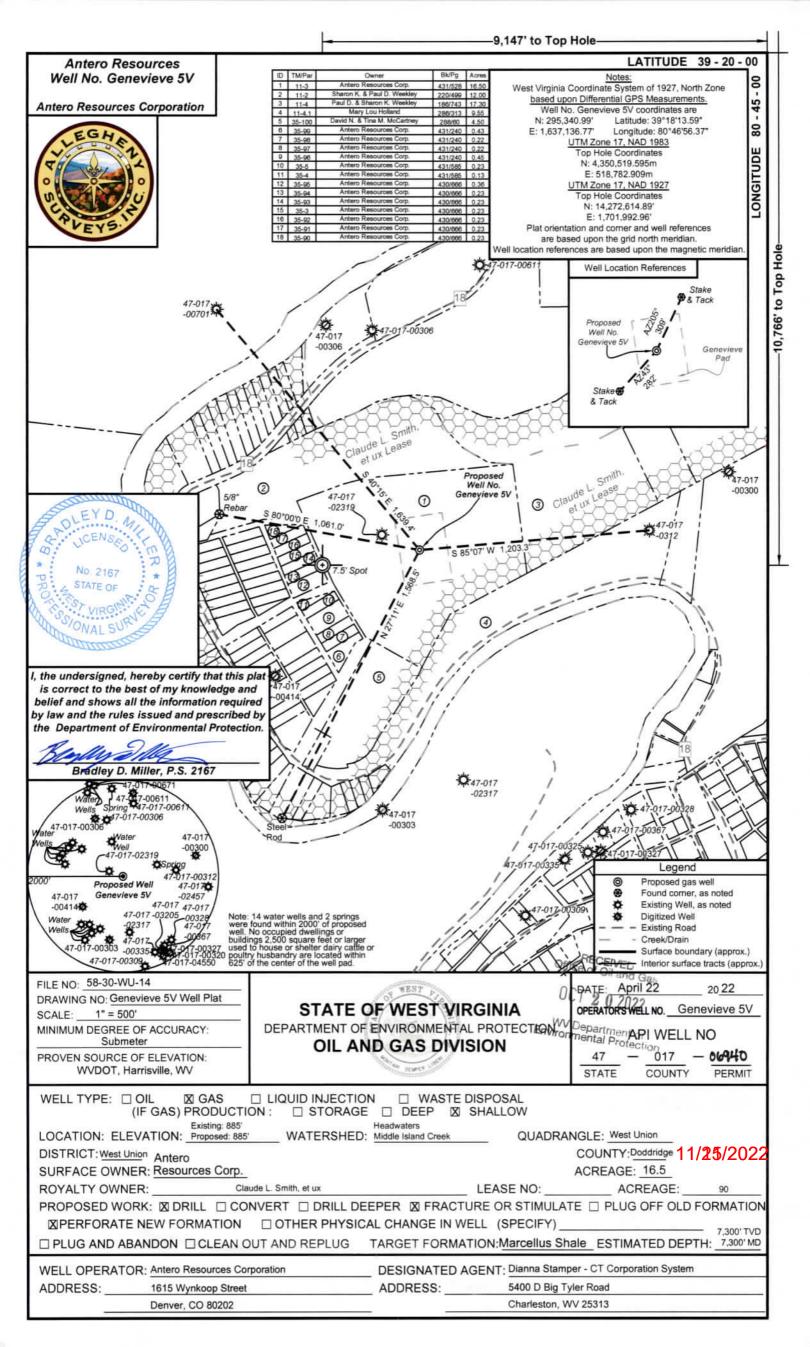
EMERGENCY (24 HOUR) CONTACT 1-800-878-1373

10(27/2022









Operator's Well Number

Genevieve Unit 5V

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
Claude L. Smith, et ux Lease			
Claude L. Smith, et ux	Key Oil Company	1/8	0104/0704
Key Oil Company	XOIL Drilling Partners LP	Assignment	0105/0566
XOIL Drilling Partners LP	XPLOR Corporation	Assignment	0146/0649
XPLOR Corporation	Venus Exploration Inc	Merger	WV SDS
Venus Exploration Inc	Allegheny Interests Inc	Assignment	0184/0512
Allegheny Interests Inc	Rubin Resources Inc	Assignment	0187/0685
Rubin Resources, Inc	Petro Edge Energy LLC	Assignment	0230/0666
Petro Edge Energy LLC	Statoil USA Onshore Properties	Assignment	0285/0071
Statoil USA Onshore Properties	EQT Production Company	Assignment	0428/0356
EQT Production Company	Antero Resources Corporation	Agreement	0385/0268

RECEIVED Office of Oil and Gas

OCT 2 0 2022

^{*}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.

WW-6A1 (5/13)

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Claude L. Smith, et ux Lease				
	Claude L. Smith, et ux	Key Oil Company	1/8	0104/0704
	Key Oil Company	XOIL Drilling Partners LP	Assignment	0105/0566
	XOIL Drilling Partners LP	XPLOR Corporation	Assignment	0146/0649
	XPLOR Corporation	Venus Exploration Inc	Merger	WV SOS
	Venus Exploration Inc	Allegheny Interests Inc	Assignment	0184/0512
	Allegheny Interests Inc	Rubin Resources Inc	Assignment	0187/0685
	Rubin Resources Inc	Petro Edge Energy LLC	Assignment	0230/0666
	Petro Edge Energy LLC	Statoil USA Onshore Properties	Assignment	0285/0071
	Statoil USA Onshore Properties	EQT Production Company	Assignment	0428/0356
	EQT Production Company	Antero Resources Corporation	Agreement	0385/0268

^{*}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

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OCT 2 0 2022

WV Department of Environmental Protection

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

Well Operator:	Antero Resources Corporation		
By:	Tim Rady		
Its:	SR VP of Land		

October 13, 2022

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

RE:

Genevieve Unit 5V

Quadrangle: West Union 7.5'

Doddridge County/West Union District, West Virginia

Mr. Martin:

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

Sincerely,

Tyler Adams Landman

> RECEIVED Office of Oil and Gas

OCT 2 0 2022

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

Date of Notic	e Certification: 10/18/2022	Α	PI No. 47	- 017 -	
2	<u> </u>			Well No. Genev	rieve Unit 5V
		v	Vell Pad N	ame: Geneviev	e Pad
Notice has l	een given:				
Pursuant to th	e provisions in West Virginia Code §	22-6A, the Operator has provide	ied the req	uired parties w	ith the Notice Forms listed
below for the	tract of land as follows:	_			
State:	West Virginia		asting:	518782m	
County:	Doddridge	N	Northing:	4350519m	
District:	West Union	Public Road Acces		Route 18N	
Quadrangle:	West Union 7.5'	Generally used farm	n name:	Antero Resources	Corp
Watershed:	Headwaters Middle Island Creek				
prescribed by it has provid information r of giving the requirements Virginia Cod	West Virginia Code § 22-6A-7(b), ethe secretary, shall be verified and shed the owners of the surface describe equired by subsections (b) and (c), sec surface owner notice of entry to surface owner notice of entry to surface of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall tehave been completed by the applicant	eall contain the following informed in subdivisions (1), (2) and cition sixteen of this article; (ii) wey pursuant to subsection (a) this article were waived in wender proof of and certify to the	mation: (14), substitute that the re- that the re- tyriting by	 A certification section (b), section (b), section quirement was ten of this artion the surface ow 	on from the operator that (i) tion ten of this article, the deemed satisfied as a result le six-a; or (iii) the notice rner; and Pursuant to West
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the required ECK ALL THAT APPLY	erator has attached proof to thi I parties with the following:	s Notice C	ertification	OOG OFFICE USE ONLY
☐ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRE SEISMIC ACTIVITY WAS			RECEIVED/
☐ 2. NO	TICE OF ENTRY FOR PLAT SURV	EY or <a> NO PLAT SURVE	Y WAS C	ONDUCTED	RECEIVED
■ 3. NO	TICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRE NOTICE OF ENTRY FOR PE WAS CONDUCTED or			RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER B (PLEASE ATTACH)	Y SURFA	CE OWNER	
■ 4. NO	TICE OF PLANNED OPERATION				RECEIVED
■ 5. PU	BLIC NOTICE				RECEIVED
■ 6. NO	TICE OF APPLICATION				☑ RECEIVED
1				_,	<u> </u>

Required Attachments:

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

Certification of Notice is hereby given:

THEREFORE, I Robert Odenthal , have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Antero Resources Corporation Address: 1615 Wynkoop Street

By: Robert Odenthal Denver, CO 80202

Its: VP of Drilling Facsimile: 303-357-7315

Telephone: 303-357-7310 Email: mstanton@anteroresources.com

NOTARY BEALR
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994011871
MY COMMISSION EXPIRES 27-Apr-2024

Subscribed and sworn before	me this 19 day of	t 2022.
Dianes	Slair	Notary Public
My Commission Expires	27 Agr 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 deprivacyofficer@wv.gov.

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OCT 2 0 2022

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

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

				in the filing date of permit application.	
		2022 Date Permit Applicatio	n Filed: 101	19/2027	
Noti	ce of:				
✓	PERMIT FOR ANY WELL WORK			PROVAL FOR THE AN IMPOUNDMENT OR PIT	
Deli	very method pursua	nt to West Virginia Code	e § 22-6A-10	(b)	
	PERSONAL [REGISTERED	☑ METU	OD OF DELIVERY THAT REQUIRES A	
_	SERVICE	MAIL		PT OR SIGNATURE CONFIRMATION	
sedir the soil and description of the second	nent control plan requirurface of the tract on wand gas leasehold being ribed in the erosion and ator or lessee, in the every coal seams; (4) The own work, if the surface tracundment or pit as desca a water well, spring or ide water for consumpt osed well work activity ection (b) of this section ds of the sheriff requirision of this article to the R. § 35-8-5.7.a requir	red by section seven of this thich the well is or is propodeveloped by the proposed sediment control plan subtent the tract of land on white water of record of the surfact is to be used for the place ribed in section nine of this water supply source locate ion by humans or domestic is to take place. (c)(1) If no hold interests in the landed to be maintained pursuance contrary, notice to a lienters, in part, that the operator	s article, and the seed to be local well work, if somitted pursual ich the well properties article; (5) A ged within one commands; and more than three s, the applicant to section on the properties and properties article; in the applicant to section of a holder is not or shall also properties.	or signature confirmation, copies of the application, the erosion and the well plat to each of the following persons: (1) The owners of recorded; (2) The owners of recorded; (3) The coal owners are to subsection (c), section seven of this article; (3) The coal owners reposed to be drilled is located [sic] is known to be underlain by one acts overlying the oil and gas leasehold being developed by the proportion, enlargement, alteration, repair, removal or abandonment of a try surface owner or water purveyor who is known to the applicant of the thin the holder of the center of the well pad which is used (6) The operator of any natural gas storage field within which the detenants in common or other co-owners of interests described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding notice to a landowner, unless the lien holder is the landowner. W. Verovide the Well Site Safety Plan ("WSSP") to the surface owner and as provided in section 15 of this rule.	the r, e or osed any to ed to
☑ A	pplication Notice	WSSP Notice ☑E&S	Plan Notice	Office of Oil and Gas ☑ Well Plat Notice is hereby provided to:	
Nam	PRFACE OWNER(s) e: Antero Resources Coress: 535 White Oaks Blvd			COAL OWNER OR LESSEE Name: No DECLARATIONS ON RECORD WITH COUNTY WY Department of Address: Environmental Protection	
	Bridgeport, WV 26330	0-4649			
Nam Add				COAL OPERATOR Name: NO DECLARATIONS ON RECORD WITH COUNTY	
ZI SI	REACE OWNER(s)	(Road and/or Other Distu	rhance)	Address:	
Nam	e:	(Roll and of Other Dista	rounce)	☑ WATER PURVEYOR(s)/OWNER(s) OR WATER WELL SPRING OR OTHER WATER SUPPLY SOURCE Name: NO WELLS WITHIN 1500'	
Nam	e:			Address:	
Add	ress:				
		(Impoundments or Pits)		OPERATOR OF ANY NATURAL GAS STORAGE FIELD Name: Address:	
Add	ress:				
				*Please attach additional forms if necessary	

4701706940

API NO. 47- 017

OPERATOR WELL NO. Genevieve Unit 5V

Well Pad Name: Genevieve 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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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 transport 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 propagate 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 on well-drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservator and reflacility of within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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OPERATOR WELL NO. Genevieve Unit 5V

Well Pad Name: Genevieve 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 (c) 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 overer service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

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

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

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.

WV Department of

4701706940

API NO. 47-017 -

OPERATOR WELL NO. Genevieve Unit 5V

Well Pad Name: Genevieve 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 http://www.dep.wv.gov/oil-and-gas/Horizontal-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.

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

OCT 2 0 2022

Telephone:

Email:

4701706940

API NO. 47-017

OPERATOR WELL NO. Genevieve Unit 5V

Well Pad Name: Genevieve Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation

(303) 357-7310

mstanton@anteroresources.com

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

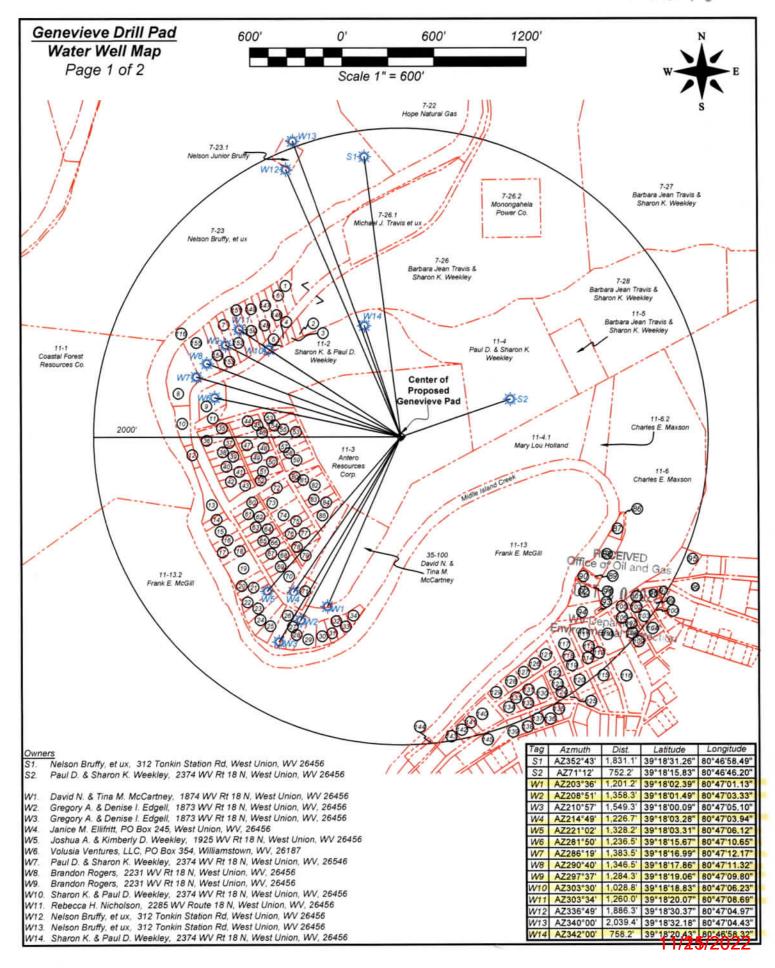
Subscribed and sworn before me this 19 day of Oct. 2022

Notary Public

My Commission Expires_

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OCT 2 0 2022



WW-6A Notice of Application Attachment (Genevieve Pad):

WATER SOURCE OWNERS: Within 2000'

TM 19-38.4 (all)

1 Water Well: 1201.2' (W1)

Owner: David N. & Tina M. McCartney

Address: 1874 WV Rt 18 N

West Union, WV 26456

TM 19-38.5, 19-38.6

2 Water Wells: 1358.3' (W2) & 1549.3' (W3)

Owner: Gregory A. & Denise I. Edgell

Address: 1873 WV Rt 18 N

West Union, WV 26456

TM 19-39

1 Water Well: 1226.7' (W4)

Owner: Janice M. Ellifritt
Address: PO Box 245

West Union, WV 26456-0245

TM 19-40

1 Water Well: 1328.2' (W5)

Owner: Joshua A. & Kimberly D. Weekley

Address: 1925 WV Rt 18 N

West Union, WV 26456

TM 25-03

1 Water Well: 1236.5' (W6)

Owner: Volusia Ventures, LLC

Address: PO Box 354

Williamstown, WV 26187-0354

TM 19-43

3 Water Wells: 1383.5' (W7) 1028.8' (W10) 75\$.2' (W14)

Owner: Paul D. & Sharon K. Weekley

Address: 2374 WV Rt 18 N

West Union, WV 26456

TM 19-38.5, 19-38.6

2 Water Wells: 11346.5' (W8) & 1284.3' (W9)

Owner: Brandon Rogers
Address: 2231 WV Rt 18 N

West Union WW 2645

West Union, WV 26456

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WW-6A Notice of Application Attachment (Genevieve Pad):

TM 19-43

1 Water Well: 1383.5' (W11)

Owner: Rel

Rebecca H. Nicholson

Address:

2285 WV Rt 18 N

West Union, WV 26456

TM 19-43

1 Water Well: 1886.3' (W12)

Owner:

Nelson Bruffy, et ux

Address:

312 Tonkin Station Rd

West Union, WV 26456

SPRING SOURCE OWNERS: Within 2000'

TM 19-43

1 Spring Well: 1831.1' (S1)

Owner:

Nelson Bruffy, et ux

Address:

312 Tonkin Station Rd

West Union, WV 26456

TM 19-43

1 Spring Well: 752.2' (S2)

Owner:

Paul D. & Sharon K. Weekley

Address:

2374 WV Rt 18 N

West Union, WV 26456

Office of Oil and Gas

OCT 2 0 2022

WW-6A4 (1/12)

Operator Well No. Genevieve Unit 5V Genevieve 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.

Notice Time Requirement: Notice shall be pate of Notice: 03/25/2022		Date Permit Application Filed: 10/19/2022	
Delivery metho	od pursuant to West Virgini	a Code § 22-6A-16(b)	
☐ HAND	■ CERTIFIED M	AIL	
DELIVER	Y RETURN REC	EIPT REQUESTED	
receipt requeste drilling a horize of this subsection subsection may	ed or hand delivery, give the sontal well: <i>Provided</i> , That not on as of the date the notice was be waived in writing by the sontal way.	east ten days prior to filing a permit application, are surface owner notice of its intent to enter upon the strice given pursuant to subsection (a), section ten as provided to the surface owner: <i>Provided, however</i> surface owner. The notice, if required, shall include onic mail address of the operator and the operator's	surface owner's land for the purpose of of this article satisfies the requirements over, That the notice requirements of this le the name, address, telephone number,
	eby provided to the SURF		
	Resources Corporation		
Address: 535 W		Address:	
Bridge	port, WV 26330-4649		
County:	West Virginia Doddridge	UTM NAD 83 Northing: 43	18782m 350519m oute 18 N
District:	West Union	Thome Road Process.	Intero Resources
	West Union 7.5'	Generally used farm name: A	nitero resources
Quadrangie.	Unadvertee Middle Island Crook		
Watershed:	Headwaters Middle Island Creek Shall Include:		
Watershed: This Notice S	Shall Include:	6(b), this notice shall include the name, addres	ss, telephone number, and if available
Watershed: This Notice S Pursuant to W facsimile num	Shall Include: /est Virginia Code § 22-6A- ber and electronic mail addr	16(b), this notice shall include the name, addresess of the operator and the operator's authorized	representative. Additional information
Watershed: This Notice S Pursuant to W facsimile num related to hori:	Shall Include: 'est Virginia Code § 22-6A- ber and electronic mail addre zontal drilling may be obtain	ess of the operator and the operator's authorized and from the Secretary, at the WV Department of	representative. Additional information Environmental Protection headquarters
Watershed: This Notice S Pursuant to W facsimile num related to hori:	Shall Include: 'est Virginia Code § 22-6A- ber and electronic mail addre zontal drilling may be obtain	ess of the operator and the operator's authorized	representative. Additional information Environmental Protection headquarters
Watershed: This Notice S Pursuant to W facsimile num related to horiz located at 601	Shall Include: 'est Virginia Code § 22-6A- ber and electronic mail address zontal drilling may be obtained 57 th Street, SE, Charleston, W	ess of the operator and the operator's authorized and from the Secretary, at the WV Department of	representative. Additional information Environmental Protection headquarters
Watershed: This Notice S Pursuant to W facsimile num related to horiz located at 601 Notice is her	Shall Include: /est Virginia Code § 22-6A- ber and electronic mail address zontal drilling may be obtain 57th Street, SE, Charleston, W eby given by:	ess of the operator and the operator's authorized and from the Secretary, at the WV Department of V 25304 (304-926-0450) or by visiting <a href="https://www.dep.upun.com/www.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.dep.upun.com/www.com/www.dep</td><td>representative. Additional information
Environmental Protection headquarters
.wv.gov/oil-and-gas/pages/default.aspx.</td></tr><tr><td>Watershed: This Notice S Pursuant to W facsimile num related to horiz located at 601 Notice is her Well Operator</td><td>Shall Include: /est Virginia Code § 22-6A- ber and electronic mail address zontal drilling may be obtaine 57th Street, SE, Charleston, W eby given by: Antero Resources Corporation</td><td>ess of the operator and the operator's authorized ed from the Secretary, at the WV Department of V 25304 (304-926-0450) or by visiting <a href=" https:="" td="" www.dep.go<="" www.dep.gov=""><td>representative. Additional information Environmental Protection headquarters .wv.gov/oil-and-gas/pages/default.aspx. Mallory Stanton 1615 Wynkoop St.</td>	representative. Additional information Environmental Protection headquarters .wv.gov/oil-and-gas/pages/default.aspx. Mallory Stanton 1615 Wynkoop St.
Watershed: This Notice S Pursuant to W facsimile num related to horiz located at 601 Notice is her	Shall Include: Yest Virginia Code § 22-6A-ber and electronic mail addressential drilling may be obtain 57th Street, SE, Charleston, Weby given by: Antero Resources Corporation 1615 Wynkoop St.	ess of the operator and the operator's authorized ed from the Secretary, at the WV Department of V 25304 (304-926-0450) or by visiting	

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

		equirement: notice shall be prov 10/19/2022 Date Per		o later than the filing pplication Filed: 10/1		application.
Delivery	metho	od pursuant to West Virginia C	ode §	22-6A-16(c)		
■ CE	RTIFI	ED MAIL		HAND		
RI	ETURN	RECEIPT REQUESTED		DELIVERY		
return re the plans required drilling of damages	ceipt re ned ope to be p of a ho to the notices	equested or hand delivery, give the eration. The notice required by rovided by subsection (b), section rizontal well; and (3) A propose surface affected by oil and gas on	this so this so ten o d surfa peration	ace owner whose land ubsection shall inclu f this article to a surf ace use and compens as to the extent the da	d will be used for de: (1) A copy ace owner whos sation agreemen amages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information the 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
(at the ac Name: _	dress l Antero R	y provided to the SURFACE O isted in the records of the sheriff		time of notice): Name:		
Address:		te Oaks Blvd rt, WV 26330-4649	- 2	Address	s:	
Notice is Pursuant operation State: County:	to We		notice i	s hereby given that the farilling a horizonta UTM NAD 8	I well on the tra	518782m
District:		Vest Union		Public Road		4350519m Route 18N
Quadran	gle: V	Vest Union 7.5'			ed farm name:	Antero Resources
Watershe	ed: F	leadwaters Middle Island Creek		_		2
Pursuant to be pro horizonta surface a informat	to We ovided al well; affected ion relaters, lo	by W. Va. Code § 22-6A-10(b) and (3) A proposed surface use by oil and gas operations to the ated to horizontal drilling may be ocated at 601 57th Street, SE,	to a s and co e exter e obta	surface owner whose impensation agreement the damages are co- lined from the Secret	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 coffer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-Office of Oil and Gas
Well Op	erator:	Antara Bassurana Composition		Address:	1015111	00= -
Telephor		Antero Resources Corporation (303) 357-7310		Address.	1615 Wynkoop Stree Denver, CO 80202	" UC Z U ZUZZ
Email:		mstanton@anteroresources.com		Facsimile:	500 y 2 M2-141 x 3 x 5 x 5 x 5	WV Department of
		matantoniganteroresources.com			303-307-7310	Environmental Protection
o., .	c n					

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 deprivacyofficer@wv.gov.

WW-6AW (1-12)

API NO. 47- 017 -	
OPERATOR WELL NO.	Genevieve Unit 5V
Well Pad Name: Genevieve F	ad

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. WV Department of Environmental Protection

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

I,	, hereby state that I have re	ead the Instructi	ons to Persons Na	amed on Page WW-6A and the associated
	ted above, and that I have received copies o			
	attachments consisting of pages one (1) th			the erosion and sediment control plan, if
200	the well plat, all for proposed well work on t	he tract of land		
State:	West Virginia	UTM NAD	Easting:	518782m
County:	Doddridge	DED AMERICAN	Northing:	
District:	West Union	Public Roa		Route 18N
Quadrangle:	West Union 7.5' General		ised farm name:	Antero Resources
Watershed:	Headwaters Middle Island Creek			
*Please check	k the box that applies		FOR EXECUT	ION BY A NATURAL PERSON
	the box that applies CE OWNER			
L SORTA	CE O WILL		Signature:	
■ SURFAC	CE OWNER (Road and/or Other Disturba	ance)	Print Name: Date:	
□ SURFA	CE OWNER (Impoundments/Pits)			ION BY A CORPORATION, ETC.
□ COAL C	OWNER OR LESSEE		Company: Antero By: Diana Hoff	
□ COAL C	PPERATOR		Its: Senior VP of Op	erations
□ WATER	RPURVEYOR		Signature:	hans O. AM
□ OPERA	TOR OF ANY NATURAL GAS STORA	AGE FIELD	Date: 10/19	5/22

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.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION Division of Highways

D. Alan Reed, P.E. Charleston, West Virginia 25305-0430 • (304) 558-3505
State Highway Engineer

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

September 20, 2022

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

Subject: DOH Permit for the Genevieve Pad, Doddridge County Genevieve Unit 5V Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2019-0087 which has been issued to Antero Resources for access to the State Road for a well site located off West Virginia Route 18 F, MP 20.83 in Doddridge County.

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, Office of Oil

Gary K. Clayton, Puronmental Protections
Regional Operations Engineer

Regional Operations Engineer Central Office O&G Coordinator

Cc:

Diane Blair

Antero Resources CH, OM, D4

File

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

FRACTURING/STIMULATING INTERVAL

Additive	Chemical Abstract Service Number (CAS #)
1. Fresh Water	7700 40 5
2. 2 Phosphobutane 1,2,4 tricarboxylic acid RECEIVED 3. Ammonium Persulfate Office of Oil and Control of Oi	37971-36-1
3. Ammonium Persulfate Office of Oil Sand	7727-54-0
4. Anionic copolymer 5. Anionic polymer	LL Proprietary
Anionic polymer BTEX Free Hydrotreated Heavy Naphtha W Departmental Pr	otection 64742-48-9
BTEX Free Hydrotreated Heavy Naphtha Wy Departmental Pr Cellulase enzyme	(Proprietary)
8. Demulsifier Base	(Proprietary)
Ethoxylated alcohol blend	Mixture
10. Ethoxylated Nonylphenol	68412-54 - 4
11. Ethoxylated oleylamine	26635-93-8
12. Ethylene Glycol	107-21-1
13. Glycol Ethers	111-76-2
14. Guar gum	9000-30-0
15. Hydrogen Chloride	7647-01-0
16. Hydrotreated light distillates, non-aromatic, BTEX free	64742-47-8
17. Isopropyl alcohol	67-63-0
18. Liquid, 2,2-dibromo-3- nitrilopropionamide	10222-01-2
19. Microparticle	Proprietary
20. Petroleum Distillates (BTEX Below Detect)	64742-47-8
21. Polyacrylamide	57-55-6
22. Propargyl Alcohol	107-19-7
23. Propylene Glycol	57-55-6
24. Quartz	14808-60-7
25. Sillica crystalline quartz	7631-86-9
26. Sodium Chloride	7647-14-5
27. Sodium Hydroxide	1310-73-2
28. Sugar	57-50-1
29. Surfactant	68439-51-0
30. Suspending agent (solid)	14808-60-7
31. Tar bases, quinolone derivs, benzyl chloride-quarternized	72480-70-7
32. Solvent Naptha, petroleum, heavy aliph	64742- 9 6-7
33. Soybean Oil, Me ester	67784-80-9
34. Copolymer of Maleic and Acrylic Acid	52255-49-9
35. DETA Phosphonate	15827-60-8
36. Hexamythylene Triamine Penta	34690-00-1
37. Phosphino Carboxylic acid polymer	71050-62-9
38. Hexamethylene diamine penta	23605-74-5
39. 2-Propenoic acid, polymer with 2 propenamide	9003-06-9
40. Hexamethylene diamine penta (methylene phosphonic a	acid) 23605-74-5
41. Diethylene Glycol	111-46-6
42. Methenamine	100-97-0
43. Polyethylene polyamine	68603-67-8
44. Coco amine	61791-14-8
45. 2-Propyn-1-olcompound with methyloxirane	38172-91-7
•	

WW-6A7 (6-12)

OPERATOR: Antero Resources Corporation	WELL NO: Genevieve Unit 5V
PAD NAME: Genevieve Pad	
REVIEWED BY: Mallory Stanton	SIGNATURE: MAN OF

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well	Restri	ctions
	\checkmark	At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
		DEP Waiver and Permit Conditions
	√	At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
		DEP Waiver and Permit Conditions
	\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
	√	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 Office Of Oil and Gas
	<u> </u>	At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
		DEP Variance and Permit Conditions OCT 20 and Gas At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR Department of Pad; OR Surface Owner Waiver and Recorded with County Clerk, OR
		DEP Variance and Permit Conditions
	\checkmark	At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
		Surface Owner Waiver and Recorded with County Clerk, OR
		DEP Variance and Permit Conditions

LOCATION COORDINATES					
CITE LOCATIONS	WV83-NF (N	ORTH ZONE)	UTM83-17		
SITE LOCATIONS	LATITUDE	LONGITUDE	NORTHING	EASTING	
MAIN ACCESS ROAD ENTRANCE	39.302526	-80.785822	4350370.9404	518466.7831	
CENTROID OF WELL PAD	39.303788	-80.781830	4350511.7759	518810.6840	
CENTROID OF AST	39.303897	-80.783625	4350523.5031	518655.8846	

GENERAL DESCRIPTION:

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

FLOODPLAIN NOTES:

THE PROPOSED SITE LOCATION IS NOT WITHIN ANY IDENTIFIED FLOOD ZONES. PER FEMA MAP NUMBER(S) #54017C0120C.

MISS UTILITY STATEMENT:

ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATION OF UTILITIES PRIOR TO THIS PROJECT DESIGN; TICKET #1831163897. IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

ENTRANCE PERMIT

ANTERO RESOURCES CORPORATION 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 ON 9/25/2018, 11/28/2018, 11/26/2018, & 8/29/2022 BY KLEINFELDER CONSULTANTS TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP), THE STREAM AND WETLAND DELINEATION MAP WAS PREPARED BY ALL STAR ECOLOGY, LLC AND SUMMARIZES 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 PROPOSED 2:1 SLOPES SHALL BE FIELD VERIFIED BY A CERTIFIED GEOTECHNICAL ENGINEER TO ENSURE THE PROPOSED SLOPES ARE ADEQUATE PRIOR TO CONSTRUCTION. ACCESS ROAD CONSTRUCTION SHALL BE MONITORED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER OR PROJECT DESIGN ENGINEER DURING CONSTRUCTION.

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: (405) 227-8344 CELL: (304) 641-8242 ROBERT WIRKS - DESIGN MANAGER

OFFICE: (304) 842-4100 CELL: (304) 627-7405 SCOTT HOFER - UTILITY SUPERVISOR

OFFICE: (740) 760-1012 CELL: (304) 615-8699

JOSH MINNICH - FIELD ENGINEER OFFICE: (740) 760-1036 CELL: (740) 777-3686

MASON

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: KLEINFELDER

MATT ALBRIGHT - ENVIRONMENTAL ENGINEER OFFICE: (724) 200-7508 CELL: (609) 947-5296

GEOTECHNICAL:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

KOW ESHUN, PE - PROJECT MANAGER OFFICE: (304) 933-3119 FAX: (304) 933-3327 CELL: (310) 774-1716

MONONGALIA

POCAHONTAS

WEBSTER

NICHOLAS

PENNSYLVANIA

MARYLAND

Eastern

Panhandle

PLAN REPRODUCTION WARNING

REDUCTIONS, REFER TO GRAPHIC SCALE.

SCALE PLOTTING.

THE PLANS HAVE BEEN CREATED ON ANSI D (22" X 34") SHEETS. FOR

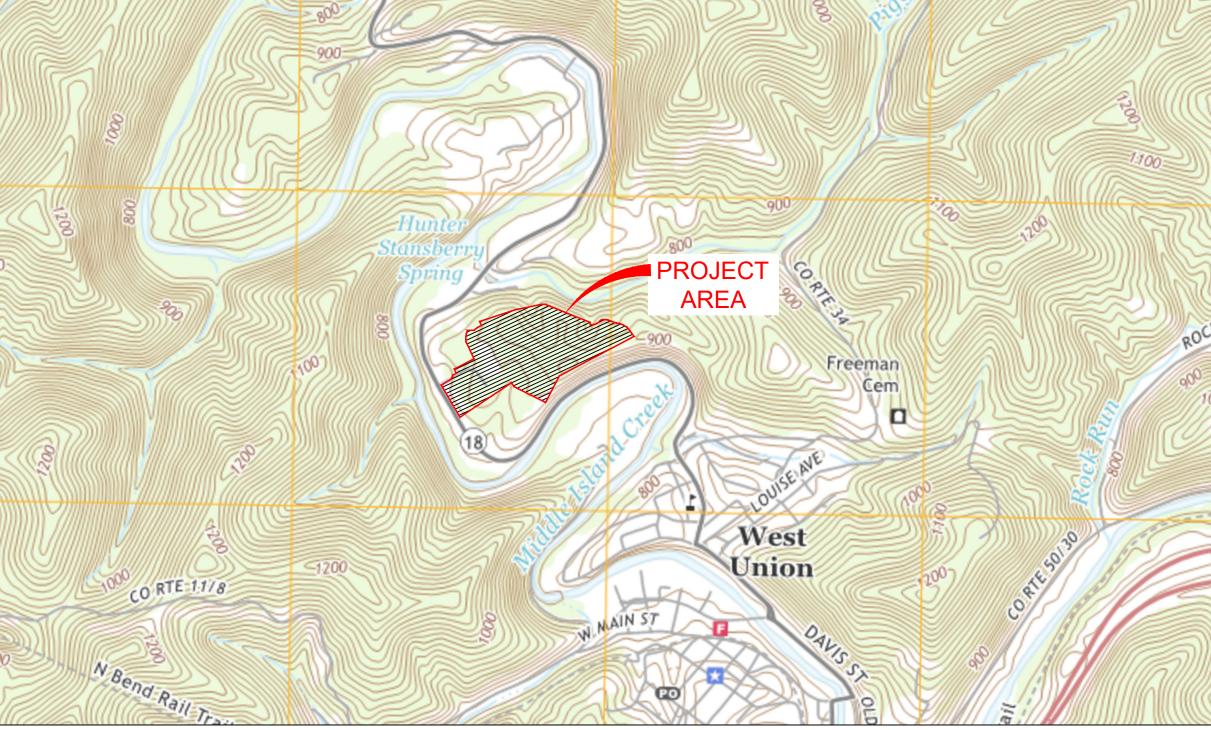
THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT

WARNING: INFORMATION MAY BE LOST IN COPYING AND/OR GRAY

BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.

GENEVIEVE WELL PAD WELL PAD SITE PLAN **ANTERO RESOURCES**

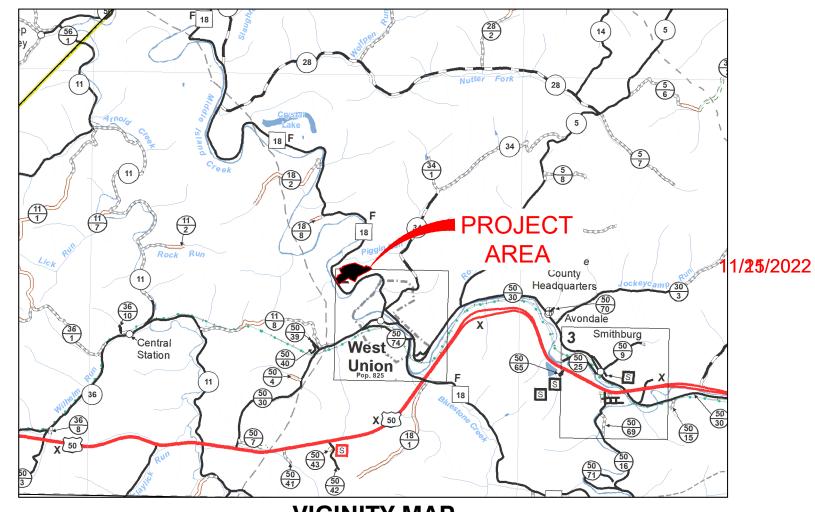
LAT./LONG: N 39.303633° W -80.782660° (APPROXIMATE CENTER OF PROJECT)



LOCATION MAP WEST UNION USGS 7.5' QUAD SCALE IN FEET 1000 1 INCH = 1000 FEET



NORTH



VICINITY MAP DODDRIDGE COUNTY ROAD MAP SCALE IN FEET

1 MILES 1 INCH = 1 MILE



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

14. PROFILE AND SECTIONS

<u>SH</u>	EET INDEX				
1.	COVER SHEET	15.	PROFILE AND SECTIONS	28.	PROFILE AND SECTIONS
2.	GENERAL NOTES	16.	PROFILE AND SECTIONS	29.	PROFILE AND SECTIONS
3.	DRAINAGE TABLES	17.	PROFILE AND SECTIONS	30.	TREE CLEARING PLAN
4.	PROPERTY OWNERS	18.	PROFILE AND SECTIONS	31.	DETAILS
5.	MASTER LEGEND	19.	PROFILE AND SECTIONS	32.	DETAILS
6.	BORING LOGS	20.	PROFILE AND SECTIONS	33.	DETAILS
7.	BORING LOGS	21.	PROFILE AND SECTIONS	34.	DETAILS
8.	BORING LOGS	22.	PROFILE AND SECTIONS	35.	DETAILS
9.	EXISTING CONDITIONS	23.	PROFILE AND SECTIONS	36.	DETAILS
10.	OVERALL SITE PLAN	24.	PROFILE AND SECTIONS	37.	DETAILS
11.	SITE PLAN	25.	PROFILE AND SECTIONS	38.	DETAILS
12.	SITE PLAN	26.	PROFILE AND SECTIONS	39.	OVERALL RECLAMATION P
13.	PAD GRADING PLAN	27.	PROFILE AND SECTIONS	40.	RECLAMATION PLAN

RESTRICTIONS NOTES:

- 1. THERE ARE NO LAKES OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD. THERE ARE EPHEMERAL STREAM AND WETLAND IMPACTS THAT WILL NEED TO BE PERMITTED BY THE
- 2. THERE ARE NO NATURALLY PRODUCING TROUT STEAMS WITHIN 300 FEET OF THE WELL PAD AND LOD. 3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1,000 FEET OF

41. RECLAMATION PLAN

- 4. THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHING 250 FEET OF
- THE WELL(S) BEING DRILLED. 5. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE WELL
- 6. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

GENEVIEVE WELL PA	D BANK GF	RADING V	OLUMES	
DESCRIPTION		CUT (CY)	FILL (CY)	NET (CY)
MAIN ACCESS ROAD			12,026	-7,178
AST PAD ACCESS ROAD		87	741	-654
ASTPAD		14,587	11,857	2,730
WELL PAD	WELL PAD		32,688	1,838
TOTAL	TOTAL		57,312	-3,264
GENEVIEVE WELL P	AD STOCK	PILE CAP	PACITY	
	NEED	DED	PROV	IDED
EXCESS SPOIL	1,45	54	4,4	14
TOPSOIL / STRIPPING	14,9	07	18,7	'39

NOTE 1: EXCESS SPOIL CAPACITY NEEDED INCLUDES SWELL FACTORS FOR CUT MATERIAL NOTE 2: TOPSOIL/STRIPPING THICKNESS FOR REMOVAL AND REPLACEMENT WAS CALCULATED WITH ESTIMATED DEPTH OF 12"

GENEVIEVE WELL PAD IMPACT TABLE				
STREAM AND WETLAND IMPACT TABLE				
NAME	TEMPORARY IMPACT	PERMANENT IMPACT	DESCRIPTION	TOTAL LENGTH
KLF-STREAM 01 (Ephemeral)	72 FT	0 FT	WITHIN LOD	72 FT
KLF-STREAM 06 (Ephemeral)	0 FT	93 FT	FILLED	93 FT
KLF-WETLAND 02 (PEM)	0.000 AC	0.010 AC	FILLED	0.010 AC
KLF-WETLAND 03 (PEM)	0.000 AC	0.021 AC	FILLED	0.021 AC
KLF-WETLAND 04 (PUB)	0.000 AC	0.012 AC	FILLED	0.012 AC
KLF-WETLAND 06 (PEM)	0.000 AC	0.013 AC	FILLED	0.013 AC
KLF-WETLAND 07 (PEM)	0.000 AC	0.021 AC	FILLED	0.021 AC

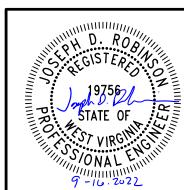
		WELL LEGEND		
WELL HEAD	WV NORTH NAD 27	WV NORTH NAD 83	UTM-M	NAD 83
CENEL/IE//E E//	N: 295340.9920	N: 295376.3174	N: 4350519.596	LAT: 39.303859°
GENEVIEVE 5V	E: 1637136.7650	E: 1605695.5450	E: 518782.907	LONG: -80.782152°

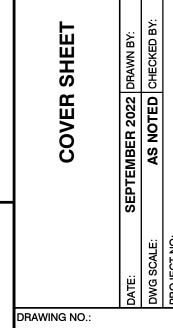
L.O.D. AREAS		
DESCRIPTION	ACRES	
MAIN ACCESS ROAD	8.20	
AST PAD ACCESS ROAD	1.32	
GENEVIEVE WELL PAD	7.69	
GENEVIEVE AST PAD	3.31	
TOPSOIL PILE 1	1.84	
TOPSOIL PILE 2	1.59	
SPOIL PILE 1	0.91	
TOTAL	24.86	
TREE CLEARING	8.24	

APPROVED

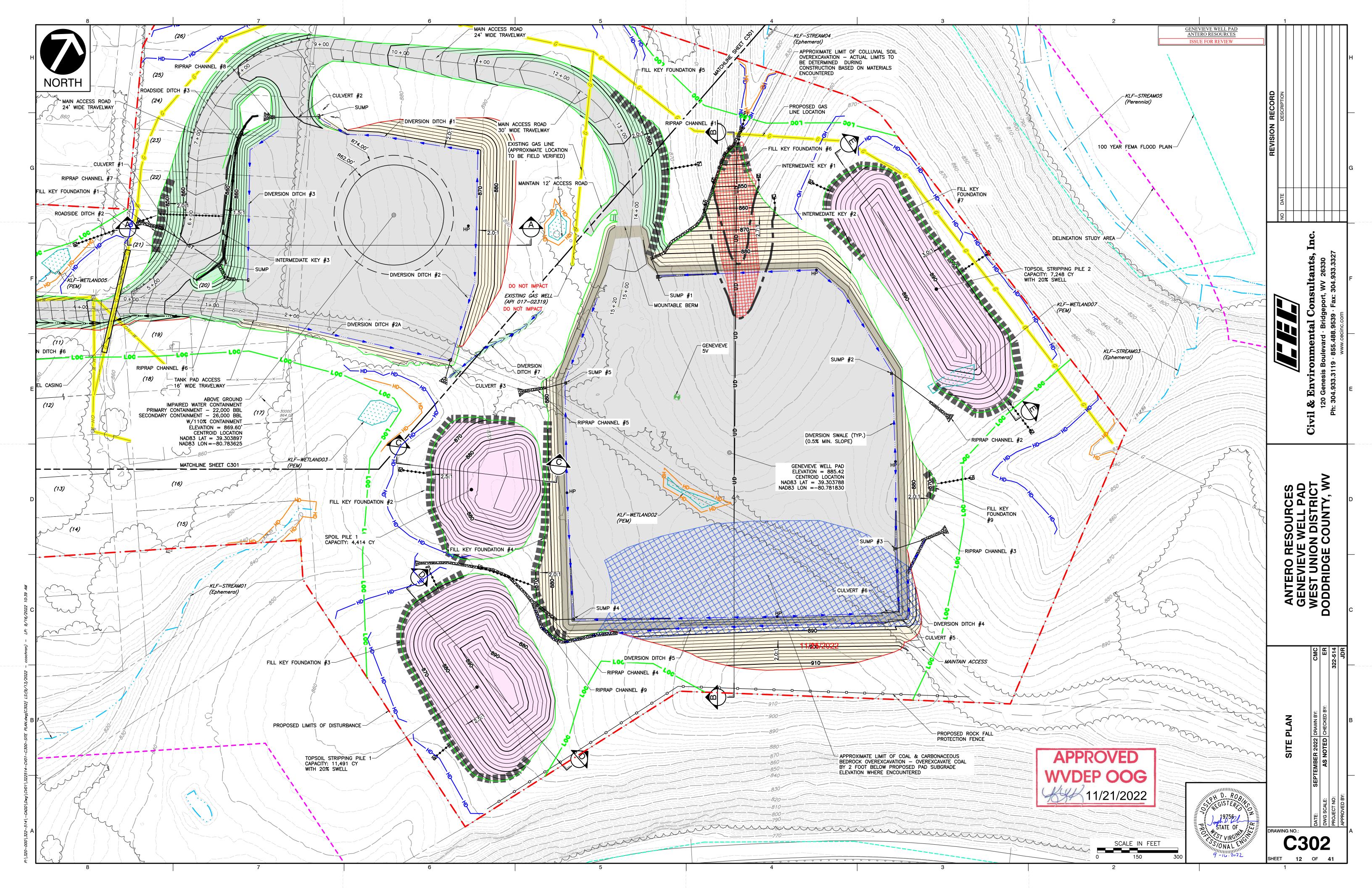
WVDEP OOG

11/21/2022





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LOCATION COORDINATES WV83-NF (NORTH ZONE) SITE LOCATIONS LATITUDE LONGITUDE NORTHING EASTING 518466.7831 -80.785822 CENTROID OF WELL PAD 39.303788 -80.781830 4350511,7759 518810.6840 -80.783625 4350523.5031 CENTROID OF AST 518655.8846

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

THE PROPOSED SITE LOCATION IS NOT WITHIN ANY IDENTIFIED FLOOD ZONES. PER FEMA MAP NUMBER(S) #54017C0120C.

ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATION OF UTILITIES PRIOR TO THIS PROJECT DESIGN; TICKET #1831163897. IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

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

EINVIRONMENTAL NOT LES.

STREAM AND WETLAND DELINEATIONS WERE PERFORMED ON 9/25/2018, 11/28/2018, 11/28/2018, 8, 8/29/2022 BY KLEINFELDER

CONSULTANTS TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF

THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRIGINA DEPARTMENT OF ENVIRONMENTAL PROTECTION

(WODEP). THE STREAM AND WETLAND DELINEATION MAY WAS PREPARED BY ALL STAR ECOLOGY, LLC AND SUMMARIZES THE

RESULTS OF THE FIELD DELINEATION. THE MAP DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE ANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WYDEP, IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINIFATION SHOWN ON THE EXHIBIT PRICE TO ENGAGING IN CONSTRUCTION ON THE PROPERTIES DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REQUATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATER OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

THE PROPOSED 2:1 SLOPES SHALL BE FIELD VERIFIED BY A CERTIFIED GEOTECHNICAL ENGINEER TO ENSURE THE PROPOSED SLOPES ARE ADEQUATE PRIOR TO CONSTRUCTION. ACCESS ROAD CONSTRUCTION SHALL BE MONITORED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER OR PROJECT DESIGN ENGINEER DURING CONSTRUCTION.

PROJECT CONTACTS:

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

ELI WAGONER - ENVIRONMENTAL & REGULATORY MANAGER OFFICE: (304) 842-4068 CELL: (304) 476-9770

AARON KUNZLER - CONSTRUCTION MANAGER OFFICE: (405) 227-8344 CELL: (304) 641-8242

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

SCOTT HOFER - UTILITY SUPERVISOR

JOSH MINNICH - FIELD ENGINEER OFFICE: (740) 760-1036 CELL: (740) 777-3686

ENGINEER/SURVEYOR: CIVIL & ENVIRONMENTAL CONSULTANTS, INC. JOSEPH D. ROBINSON, PE - PROJECT MANAGER/ENGINEER OFFICE: (304) 933-3119 FAX: (304) 933-3327 CELL: (443) 386-2808

ENVIRONMENTAL: KLEINFELDER

MATT ALBRIGHT - ENVIRONMENTAL ENGINEER OFFICE: (724) 200-7508 CELL: (609) 947-5296

GEOTECHNICAL

CLAY

Capitol

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
KOWESHUN, PE - PROJECT MANAGER
OFFICE: (304) 933-3119 FAX: (304) 933-3327 CELL: (310) 774-1716

AREA

PENNSYLVANIA

MARYLANI

Eastern Panhandle

PLAN REPRODUCTION WARNING

THE PLANS HAVE BEEN CREATED ON ANSI D (22° X 34") SHEETS, FOR

THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT

WARNING: INFORMATION MAY BE LOST IN COPYING AND/OR GRAY

GENEVIEVE WELL PAD WELL PAD SITE PLAN ANTERO RESOURCES

LAT./LONG: N 39.303633° W -80.782660° (APPROXIMATE CENTER OF PROJECT)



LOCATION MAP

1000 1 INCH = 1000 FEET

WEST UNION USGS 7.5' QUAD





VICINITY MAP

DODDRIDGE COUNTY ROAD MAP SCALE IN FEET





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

SHEET INDEX

COVER SHEET GENERAL NOTES DRAINAGE TABLES

PROPERTY OWNERS MASTER LEGEND BORING LOGS BORING LOGS

BORING LOGS EXISTING CONDITIONS
OVERALL SITE PLAN

12. SITE PLAN PAD GRADING PLAN

22. PROFILE AND SECTIONS 23 PROFILE AND SECTIONS 24. PROFILE AND SECTIONS 25. PROFILE AND SECTIONS 26. PROFILE AND SECTIONS 27. PROFILE AND SECTIONS

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16. PROFILE AND SECTIONS
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21. PROFILE AND SECTIONS

33. DETAILS 34. DETAILS 35. DETAILS 36. DETAILS 37 DETAILS

38. DETAILS 39. OVERALL RECLAMATION PLAN 40. RECLAMATION PLAN 41. RECLAMATION PLAN

32. DETAILS

28. PROFILE AND SECTIONS

29. PROFILE AND SECTIONS

30. TREE CLEARING PLAN 31. DETAILS

IEST HILD FLOW DO LAKES OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD.

THERE ARE EPHEMERAL STREAM AND WETLAND IMPACTS THAT WILL NEED TO BE PERMITTED BY THE APPROPRIATE AGENCIES.

THERE ARE NO NATURALLY PRODUCING TROUT STEAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.

THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1,000 FEET OF

THE WELL PAD AND LOD.

THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPAINGS WITHING 250 FEET OF
THE WELL(S) BEING DRILLED.

THE RELIES DELIVED WELLELY.

THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

GENEVIEVE WELL PA	D BANK GI	RADING V	OLUMES	
DESCRIPTION		CUT (CY)	FILL (CY)	NET (CY)
MAIN ACCESS ROAD		4,848	12,026	-7,178
AST PAD ACCESS ROAD		87	741	-654
ASTPAD		14,587	11,857	2,730
WELL PAD		34,526	32,688	1,838
TOTAL		54,048	57,312	-3,264
GENEVIEVE WELL	PAD STOCK	PILE CAP	ACITY	
	NEED	DED	PROV	IDED
EXCESS SPOIL	1,4	54	4,4	14
TOPSOIL/STRIPPING	14.9	107	18,7	39

NOTE 1: EXCESS SPOIL CAPACITY NEEDED INCLUDES SWELL FACTORS FOR CUT MATERIAL NOTE 2: TOPSOIL/STRIPPING THICKNESS FOR REMOVAL AND REPLACEMENT WAS CALCULATED WITH ESTIMATED DEPTH OF 12"

	GENEVIEVE WELL PA	AD IMPACT TABLE		
5	TREAM AND WETLA	ND IMPACT TABL	.E	
NAME	TEMPORARY IMPACT	PERMANENT IMPACT	DESCRIPTION	TOTAL LENGTH
KLF-STREAM 01 (Ephemeral)	72 FT	0 FT	WITHIN LOD	72 FT
KLF-STREAM 06 (Ephemeral)	0 FT	93 FT	FILLED	93 FT
KLF-WETLAND 02 (PEM)	0.000 AC	0.010 AC	FILLED	0.010 AC
KLF-WETLAND 03 (PEM)	0.000 AC	0.021 AC	FILLED	0.021 AC
KLF-WETLAND 04 (PUB)	0.000 AC	0.012 AC	FILLED	0.012 AC
KLF-WETLAND 06 (PEM)	0.000 AC	0.013 AC	FILLED	0.013 AC
KLF-WETLAND 07 (PEM)	0.000 AC	0.021 AC	FILLED	0.021 AC

		WELL LEGEND		
WELL HEAD	WV NORTH NAD 27	WV NORTH NAD 83	UTM-M	NAD 83
OFNIB HEAT DA	N; 295340.9920	N: 295376.3174	N: 4350519.596	LAT: 39.303859°
GENEVIEVE 5V	E: 1637136.7650	E: 1605695.5450	E: 518782.907	LONG: -80.782152°

L.O.D. AREAS		
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TOPSOIL PILE 2	1.59	
SPOIL PILE 1	0.91	
TOTAL	24.86	
TREE CLEARING	B.24	



SHEET COVER

C000

11/25/2022

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Genesis Bou A.933.3119 · 3

Civil & 1

ANTERO RESOURCES GENEVIEVE WELL PAD WEST UNION DISTRICT DODDRIDGE COUNTY, WV

- 1. THE CONTRACTOR IS TO VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND WILL NOTIFY CIVIL ENVIRONMENTAL CONSULTANTS, INC IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLAN, ANY WORK PERFORMED BY THE CONTRACTOR AFTER THE FINDING OF SUCH DISCREPANCIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
- 2. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS HERREIN SHALL CONFORM TO THE CURRENT COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR CURRENT WV DEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL STANDARDS AND SECIFICATIONS, SHOULD A CONFLICT BETWEEN THE DESIGN, SPECIFICATIONS, AND PLANS OCCUR THE MOST STRINGENT REQUIREMENT WILL APPLY. THE APPROVAL OF THESE PLANS IN NO WAY RELIEVES THE DEVELOPER OR HIS AGENT OF THE RESPONSIBILITIES CONTAINED IN THE WOLD SECIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL OF THE RESPONSIBILITIES CONTAINED IN THE WOLD SECIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL STANDARD AND PRACTICE MANUAL STANDARD
- 3, AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE, ALSO, A REPRESENTATIVE OF THE CONTRACTOR MUST BE AVAILABLE AT ALL TIMES.
- 4. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST, AND TO TAKE WHATEVER MEASURES ARE NECESSARY TO INSURE THAT THE STREETS ARE MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES. ADHERE TO TRAFFIC CONTROL SPECIFICATIONS AS INDICATED IN THE WV DOH MM209.
- 5. THE LOCATION OF EXISTING UTILITIES SHOWN IN THESE PLANS ARE FROM FIELD LOCATIONS AND/OR GIS DATA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES AS NEEDED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY CONFLICTS ARISING FROM HIS EXISTING UTILITY VERIFICATION AND THE PROPOSED CONSTRUCTION.
- 6. THE CONTRACTOR SHALL PROVIDE NOTIFICATION TO THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION OF WATER AND/OR GAS PIPELINES, INFORMATION SHOULD ALSO BE OBTAINED FROM THE APPROPRIATE AUTHORITY CONCERNING PERMITS, CUT SHEETS, AND CONNECTIONS TO EXISTING LINES.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE EXISTING STREETS AND UTILITIES WHICH OCCURS AS A RESULT OF THIS CONSTRUCTION PROJECT WITHIN OR CONTIGUOUS WITH THE EXISTING RIGHT-OF-WAY
- 8. WHEN GRADING IS PROPOSED WITHIN EASEMENTS OF UTILITIES, LETTERS OF PERMISSION FROM ALL INVOLVED COMPANIES MUST BE OBTAINED PRIOR TO GRADING AND/OR SITE DEVELOPMENT.
- 9. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITIES NOT IDENTIFIED ON THE CONSTRUCTION DOCUMENTS, AS A RESULT OF THIS PROJECT. AS NOTED ON THE DRAWINGS OTHER UTILITIES HAVE OR WILL BE RELOCATED I THERS. CONTRACTOR IS TO CONFIRM THE STATUS OF UTILITIES WITH AN ANTERO CONSTRUCTION REPRESENTATIVE PRIOR TO STARTING THE PROJECT. UNIDENTIFIED UTILITIES THAT ARE ENCOUNTERED IN THE FIELD MUST BE BROUGHT IMMEDIATELY TO
- THE ATTENTION OF THE ANTERO REPRESENTATIVE. 10. THESE PLANS IDENTIFY THE LOCATION OF ALL KNOWN GRAVESITES, GRAVESITES SHOWN ON THIS PLAN WILL BE PROTECTED IN ACCORDANCE WITH STATE LAW. IN THE EVENT GRAVESITES ARE DISCOVERED DURING CONSTRUCTION, THE OWNER AND ENGINEER MUST BE NOTIFIED IMMEDIATELY.
- 11. THE CONTRACTOR(S) SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATING OR BLASTING AT LEAST TWO (2) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS, PRIOR TO
- COMMENCEMENT OF EXCAVATION OR DEMOLITION. 12. CONTRACTOR TO CONTACT OPERATOR AND ENGINEER IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION
- 13. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE EROSION AND SEDIMENT CONTROL INSPECTOR 2 DAYS PRIOR TO THE START OF CONSTRUCTION.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR ALL FILL MATERIAL PLACEMENT REQUIRED DURING THE CONSTRUCTION OF THIS PROJECT, ALL MATERIAL TESTS SHALL BE CONDUCTED BY THE ON-SITE INSPECTOR. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER CERTIFYING THE CONSTRUCTED FACILITY. FAILURE TO CONDUCT THE DENSITY TESTS AND/OR NECESSARY REPAIRS TO DEFICIENT AREAS AS A RESULT OF THE DENSITY TESTING SHALL BE CAUSE FOR NON-ACCEPTANCE OF THE CONSTRUCTED
- 15. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE SITE IN ACCORDANCE WITH THE DESIGN PLANS, CONSTRUCTION DOCUMENTS AND THE SCOPE OF WORK SHALL CONFORM WITH THE GRADES, BERMS, DEPTHS, DIMENSIONS, ETC. SHOWN
- 16. SUPER SILT FENCE OR SMARTFENCE HD. CAN BE USED IN PLACE OF ANY COMPOST FILTER SOCK, TRIPLE STACK 42" COMPOST FILTER SOCK CAN BE USED IN PLACE OF SUPER SILT FENCE OR SMARTFENCE HD.
- 17. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, INCLUDING THE 1970 OSHA ACT. PRECAUTION FOR THE PROTECTION OF PERSONS, INCLUDING EMPLOYEES AND PROPERTY, SHALL ALWAYS BE EXERCISED BY THE CONTRACTOR, INITIATION, MAINTENANCE, AND SUPERVISION OF ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING ALL REQUIREMENTS PER GIR 1910.146, SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 18, CONSTRUCTION ACTIVITIES SHALL BE RESTRICTED TO THE AREA SHOWN ON THE PLANS WITHIN THE LIMITS OF DISTURBANCE, UNLESS OTHERWISE AUTHORIZED BY ANTERO RESOURCES CORPORATION. MODIFICATION PLAN MUST BE SUBMITTED TO THE DEP FOR ANY ACTIVITIES PERFORMED OUTSIDE OF THE LIMITS OF DISTURBANCE.
- 19. PRESERVATION OF BENCHMARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS IS THE RESPONSIBILITY OF THE CONTRACTOR. IN CASES OF WILLFUL OR CARELESS DESTRUCTION THE CONTRACTOR SHALL BE REQUIRED TO REPLACE OR RESTORE SAID MONUMENT OR MARKER. RESETTING OF MARKERS SHALL BE PERFORMED BY A PROFESSIONAL SURVEYOR AS APPROVED BY ANTERO RESOURCES CORPORATION.
- 20. THE CONTRACTOR SHALL MAINTAIN ADEQUATE CLEARANCE FROM ALL ELECTRIC LINES. IF ANY, IN ACCORDANCE WITH NATIONAL ELECTRICAL SAFETY CODE,
- 21. THE CONTRACTOR SHALL MINIMIZE ALL CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE MAXIMUM EXTENT POSSIBLE CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE UMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THI
- 22. ANY DIGITAL FILES PROVIDED TO THE CONTRACTOR BY CIVIL ENVIRONMENTAL CONSULTANTS, INC ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONSTRUCTION OF THE SITE SHALL MEET ALL DESIGN PARAMETERS OF THE WYDEP APPROVED X

 DESIGN PLANS. CIVIL ENVIRONMENTAL CONSULTANTS, INC WILL NOT BE HELD LIABLE FOR THE CONTRACTOR USING THE DIGITAL FILES TO WAIVER FROM THE APPROVED DESIGN PLANS. 23. ANY CONSTRUCTION ISSUES OR QUESTIONS SHALL BE BROUGHT TO THE ENGINEER IMMEDIATELY. THE CONSTRUCTION INSPECTOR SHALL BE CONTACTED AND MUST RELAY THESE ISSUES OR QUESTIONS TO THE ENGINEER FOR RESOLUTION. TEM
- STABILIZATION SHALL BE APPLIED AS NECESSAR' 24. ALL EXISTING AND DESIGNED CULVERTS AND CULVERT SUMPS SHALL BE CLEANED AND CLEARED OF DEBRIS DURING THE COURSE OF CONSTRUCTION. ANY EXCESS EROSION DUE TO THE PLUGGING OF A CULVERT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 25. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE ANY REQUIRED PERMITS FOR DEMOLITON OF EXISTING STRUCTURES.
- 26. CONTRACTOR SHALL INSTALL AND MAINTAIN HOLIDAY POLES UNDER ALL OVERHEAD UTILITIES. SEE HOLIDAY POLE DETAIL

THE DEVELOPMENT OF THE SITE SHALL BE CONSISTENT WITH THE FOLLOWING GENERAL SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT, MAINTAIN, AND OPERATE ALL PROPOSED ERGSION AND SEDIMENT CONTROL MEASURES TO EFFECTIVELY MITIGATE THE HAZARD OF ACCELERATED EROSION AND SEDIMENTATION TO ACCEPTABLE LEVELS. MINOR DEVIATIONS FROM THIS SEQUENCE SHALL BE EXECUTED BY THE PREJECT. THE WORK TO A CONTROL AND ASSESSMENT OF THE PREJECT. THE WORK TO BE CONTROL OF THE WOR

- 1, A PRE-CONSTRUCTION CONFERENCE WITH THE CONTRACTOR AND THE APPROPRIATE EROSION AND SEDIMENT CONTROL INSPECTOR 48 HOURS PRIOR TO BEGINNING WORK TO REVIEW THE CONSTRUCTION DRAWINGS AND PROVIDE ANY REQUESTED
- 2. STAKE THE LIMITS OF CONSTRUCTION AND MARK/FLAG ALL IDENTIFIED WETLANDS, STREAMS, UTILITIES, AND OTHER AREAS OF CONCERN FOR CONSTRUCTION ACTIVITIES, INSTALL SIGNS TO DESIGNATE THE AREAS AND ORJ
 IDENTIFY IMPORTANT PROJECT ATTRIBUTES SUCH AS APPROVED ACCESS ROADS, NO REFUELING ZONES, WETLANDS/STREAM BOUNDS, ETC.
- 3. CONSTRUCT THE ROCK CONSTRUCTION ENTRANCE. ALL VEHICLES ENTERING AND EXITING THE SITE SHALL DO SO VIA THE ROCK CONSTRUCTION ENTRANCE.
- 4. CONSTRUCT ALL BMP'S AS SOON AS CLEARING AND GRUBBING OPERATIONS ALLOW, DIVERSIONS AND SEDIMENT TRAP(S)/BASIN(S) SHALL BE SEEDED AND MULCHED IMMEDIATELY.
- 5. IF APPLICABLE, CONVEY UPSLOPE DRAINAGE AROUND THE ACCESS ROAD, WELL PAD, AND WATER CONTAINMENT PAD AREAS BY CONSTRUCTING ALL DIVERSION BERM(S) AND/OR COMPOST FILTER SOCK DIVERSION(S) AS SHOWN ON THE PLANS.
- 5. CLEAR AND GRUE THE STIE. ALL WOODY MATERIAL, BRUSH, TREES, STUMPS, LARGE ROOTS, BOULDERS, AND DEBRIS SHALL BE CLEARED FROM THE SITE AREA AND KEPT TO THE MINIMUM NECESSARY FOR PROPER CONSTRUCTION, INCLUDING THE INSTALLATION OF NECESSARY SEDIMENT CONTROLS. TREES SIX INCHES IN DIAMETER AND LARGER SHALL BE CUT AND LOGS STACKED. SMALLER TREES, BRUSH, AND STUMPS SHALL BE CUT AND/OR GRUBBED AND WINDROWED IN APPROPRIATE AREAS FOR USE AS SEDIMENT BRRIIERS AT WATER DRAINAGE CUTLETS (AS SHOWN ON THE PLANS), WINDROWED BELOW THE WELL SITE, USED FOR WILDLIFE HABITAT, BURNED (AS PER WY FOREST FIRE LAWS), REMOVE FROM SITE, OR DISPOSED OF BY OTHER METHODS APPROVED BY WY DEP.
- 7 IF APPLICABLE, INSTALL ALL WETLAND OR STREAM CROSSING AS SHOWN ON THE PLANS.
- 8. STRIP THE TOPSOIL FROM THE ACCESS ROAD, PRIOR TO PLAGING ANY FILL, THE EXPOSED SUBGRADE SHALL BE COMPACTED AND PROOF ROLLED USING A FULLY LOADED TRIAXLE OR OFF ROAD DUMP TRUCK TO PRODUCE A STABLE AND UNYIELDIN ALL STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN IN THE PLANS, OR RE-SPREAD AT AN APPROXIMATE DEPTH OF 2-4 INCHES ON ALL PROPOSED 2-1 OR FLATTER SLOPES, AND IMMEDIATELY STABILIZED. ADDITIONAL BMP MEASURES SCONSTRUCTED AROUND TOPSOIL STOCKPILES. IF INCESSARY.
- 9. CONSTRUCT THE ACCESS ROAD, ALL FILL AREAS INCLUDING EXCESS MATERIAL STOCKPILES SHALL BE "KEYED" IN AND COMPACTED IN HORIZONTAL LIFTS WITH A MAXIMUM LOOSE LIFT THICKNESS OF 12" AND MAXIMUM PARTICLE SIZE AS OUT LINED IN
- 10. STRIP THE TOPSOIL FROM THE WELL PAD AND WATER CONTAINMENT PAD. PRIOR TO PLACING ANY PILL, THE EXPOSED SUBGRADE SHALL BE COMPACTED AND PROOF ROLLED TO PRODUCE A STABLE AND UNVIELDING SITE. ALL STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN IN THE PLANS, OR RE-SPREAD AT AN APPROXIMATE DEPTH OF 2-4 INCHES ON ALL PROPOSED 2:1 OR FLATTER SLOPES, AND IMMEDIATELY STABILIZED. ADDITIONAL BMP MEASURES SHALL BE CONSTRUCTED AROUND TOPSOIL STOCKPILES, IF NECESSARY.
- 11. GRADE THE WELL PAD AND WATER CONTAINMENT PAD AREAS AS SHOWN ON THE PLANS. INSTALL PAD SUMPS (WITH 4" PVC ORAIN PIPE AND OUTLET PROTECTION) AND CONTAINMENT BERM LINER SYSTEM. IMMEDIATELY STABILIZE THE OUTER AREAS OF THE WELL PAD AND WATER CONTAINMENT PAD. THE WELL PAD AND WATER CONTAINMENT PAD AREAS SHALL BE STABILIZED WITH GEOTEXTILE FABRIC & STONE AND THE SIDE SLOPES WITH SEED AND MULCH. APPLY SEED AND MULCH TO ALL DISTURBED AREAS, THIS SHALL INCLUDE ALL AREAS THAT WILL NOT BE SUBJECT TO REGULAR TRAFFIC ACTIVITY (TO BE STABILIZED WITH STONE), OR ANY DISTURBED AREA THAT WILL NOT BE RE-DISTURBED BEFORE SITE RECLAMATION BEGINS. 12. COMMENCE WELL DRILLING ACTIVITY.
- 13. ALL BMP'S MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL ALL AREAS WITHIN THE LIMIT OF DISTURBANCE ARE COMPLETE AND PERMANENTLY STABILIZED, MAINTENANCE MUST INCLUDE INSPECTION OF ALL EROSION AND SEDIMENT CONTROLS
 AFTER EACH RUNOFF EVENT IN EXCESS OF 0.5" AND ON A BI WEEKLY BASIS.
- 14. THE CONSTRUCTION SITE SHOULD BE STABILIZED AS SOON AS POSSIBLE AFTER COMPLETION. ESTABLISHMENT OF FINAL STABILIZATION MUST BE INITIATED NO LATER THAN 7 DAYS AFTER REACHING FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOLL-DISTURBING ACTIVITIES ARE COMPLETED, AND THAT EITHER A PERMANENT VEGETATIVE COVER WITH A DENSITY OF 70%OR GREATER HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY HARD COVER SUCH AS PAYMENT OR BUILDINGS, IT SHOULD BE NOTED THAT THE 70% REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT JUST A PERCENT OF THE SITE.
- 15. ALL PERMANENT SEDIMENT CONTROL MEASURES CAN BE REMOVED AFTER THE SITE IS PERMANENTLY STABILIZED AND APPROVAL IS RECEIVED FROM THE WVDEP
- 16. ANY AREAS DISTURBED BY REMOVAL OF CONTROLS SHALL BE REPAIRED, STABILIZED, AND PERMANENTLY SEEDED.

- A GEOTECHNICAL SUBSURFACE INVESTIGATION WAS PERFORMED BY CIVIL & EMMRONMENTAL CONSULTANTS, INC. ON 02/04/2019.
- EXISTING TOPOGRAPHY AND PLANIMETRIC FEATURES PROVIDED BY BLUE MOUNTAIN, INC. ON
- DELINEATIONS INFORMATION OBTAINED FROM KLEINFELDER CONSULTANTS ON 09/25/2018, 11/26/2018, 11/28/2019, & 8/29/2022.
- THERE ARE PRODUCING, IDLE, AND/OR ORPHANED WELLS SHOWN WITHIN THE AOI PER CEC FIELD SURVEY, 02/14/2018 & 09/14/2018

CONSTRUCTION STANDARDS:

THE DESIGN, CONSTRUCTION, AND REMOVAL OF FILL FOR OIL AND GAS SITES MUST BE ACCOMPLISHED IN SUCH A MANNER AS TO PROTECT THE HEALTH AND SAFETY OF THE PUBLIC, THE NATURAL RESOURCES, AND ENVIRONMENT OF THE STATE.
THE SITE SHALL BE DESIGNED, CONSTRUCTED, AND MAINTAINED TO BE STRUCTURALLY SOUND AND REASONABLY PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.

- 1. ALL FILL AREAS SHALL BE CLEARED OF TREES, STUMPS, ANY VEGETATION AND STRIPPED OF TOPSOIL/ORGANIC SOILS PRIOR TO THE START OF FILL PLACEMENT
- 2. ANY GROUNDWATER ENCOUNTERED DURING CONSTRUCTION SHALL BE DRAINED TO THE OUTSIDE/DOWNSTREAM TOE OF THE SLOPE. THE CONSTRUCTED DRAIN SECTION SHALL BE AN EXCAVATED 2' x 2' TRENCH AND BACK FILLED WITH #57 STONE, COMPACTED BY HAND TAMPER. GEOTEXTILE FABRIC SHALL BE USED TO LINE TRENCH.
- 3. SATISFACTORY MATERIALS FOR USE AS FILL FOR PAD AREAS INCLUDE MATERIALS CLASSIFIED IN ASTM D-2487 AS GW, GP, GM, GC, SW, SP, SM, SC, MI, AND CL GROUPS.
- 4. GENERALLY, UNSATISFACTORY MATERIALS INCLUDE MATERIALS CLASSIFIED IN ASTM D-2487 AS PT, CH, MH, OI, OH, AND ANY SOIL TOO WET TO FACILITATE COMPACTION. CH AND MH SOILS MAY BE USED SUBJECT TO APPROVAL OF THE

- 24" THICK) TO BE PLACED AS FILL DURING PLACEMENT OF FILL CONTAINING LARGE SIZE ROCK PARTICLES. IT IS CRITICAL THAT NO VOID SPACES BE LEFT BETWEEN THE ROCKS. SMALLER ROCK FRAGMENTS AND SOIL MUST BE WORKED INTO ANY OPENINGS BETWEEN THE BOULDERS AFTER THEY ARE PUT IN PLACE. ADDITIONAL GUIDANCE REGARDING ENCOUNTERED ROCK CAN BE FOUND IN THE GEOTECHICAL REPORT. 7. THE PLACEMENT OF ALL FILL MATERIAL SHALL BE FREE OF WOOD, STUMPS AND ROOTS, LARGE ROCKS AND BOULDERS, AND ANY OTHER NONCOMPACTABLE SOIL MATERIAL NO FILL SHALL CONTAIN OR BE PLACED ON FROZEN MATERIAL. THE FILL SHALL BE COMPACTED TO A MINIMUM OF VISIBLE NON-MOVEMENT. HOWEVER, THE COMPACTION EFFORT SHALL NOT EXCEED OPTIMUM MOISTURE LIMITS.
- 8. ALL EXPOSED AREAS, NOT COVERED BY COMPACTED GRAVEL, OR RIP-RAP SHALL BE LIMED, FERTILIZED, SECDED AND MULCHED. PERMANENT VEGETATIVE GROUND COVER IN COMPLIANCE WITH THE WV DEP EROSION AND SEDIMENT CONTROL FIELD MANUAL MUST BE ESTABLISHED UPON THE COMPLETION OF CONSTRUCTION. SLOPES SHALL BE MAINTAINED WITH A GRASSY VEGETATIVE COVER AND FREE OF BRUSH AND/OR TREES.
- 9. IF STANDING WATER IS PRESENT ON SITE, CONTRACTOR TO CORRECT DRAINAGE ISSUE BY DIRECTING WATER TO PROPER E&S CONTROLS OR OUTLET WITH POSITIVE DRAINAGE IF NECESSARY, CONTACT ENGIN
- 10. ALL DRAINAGE DITCHES, DIVERSIONS, AND CULVERTS SHALL HAVE POSITIVE DRAINAGE AND OUTFALL INTO THE PROPER OUTLET PROTECTION OR LEVEL SPREADING DEVICE. SUPER SILT FENCE, OR APPROVED ALTERNATIVE, SHALL BE INSTALLED WITHIN S FEET OF THE OUTLET PROTECTION OR LEVEL SPREADING DEVICE TO PREVENT EROSION DOWNSTREAM. IF EROSION IS PRESENT DOWNSTREAM OF AN EROSION CONTROL DEVICE, CONTRACTOR TO INSTALL ADDITIONAL EROSION CONTROLS AND STABILIZATION TO PREVENT FURTHER EROSION.
- 12. ALL DRAINAGE DITCHES AND DIVERSIONS THAT ARE ROCK LINED SHALL BE INSTALLED PER THE DETAILS ON THIS PLAN INCLUDING THE NECESSARY INSTALLATION OF ANY GEOTEXTILE FABRIC UNDERNEATH THE ROCK LIN 12. IF THE EROSION CONTROL DEVICES SHOW EVIDENCE OF BEING INADEQUATE DUE TO CONSTRUCTION MEANS AND METHODS. THE CONTRACTOR IS TO INSTALL ADDITIONAL DRAINAGE DEVICES OR EROSION CONTROLS TO PREVENT FURTHER PROSION FROM OCCURRING.
- 13. CONTRACTOR IS TO EXTEND ALL KEYWAY AND BONDING BENCH OUTLET DRAINS A MINIMUM OF ONE FOOT PAST THE FINISHED GRADE OF THE SLOPE AND INSTALL THE PROPER OUTLET PROTECTION PER THE DETAILS ON THESE PLANS. ALL OUTLET DRAINS ARE TO BE CLEARLY VISIBLE AND MARKED.
- 14. ALL SLOPES SHALL BE TRACKED IN PER THE DETAILS ON THESE PLANS. CONTRACTORS SHALL REPEAT THIS METHOD ANY TIME AN AREA HAS BEEN DISTURBED PRIOR TO THAT AREA BEING STABILIZED.
- 15. ALL MAINTENANCE OF EROSION AND SEDIMENT CONTROLS MUST BE PERFORMED IMMEDIATELY ONCE THE CONTRACTOR IS NOTIFIED OF THE DISCREPANCY. CONTRACTOR TO PERFORM MAINTENANCE OR IMMEDIATELY NOTIFY THE SUB-CONTRACTOR PERFORMING THE E&S TASKS. ANY EROSION CONTROL MAINTENANCE THAT IS DEEMED TO BE AN EMERGENCY SHALL BE PERFORMED IMMEDIATELY UPON THE CLIENT, ENGINEER, OR STATE'S REQUEST.
- SOLD CONTROLLED AND EXISTING WELL ROADS THAT ARE BEING MAINTAINED SHALL BE KEPT OPEN DURING THE ENTIRE COURSE OF CONSTRUCTION TO PROVIDE CONTINUOUS ACCESS. IF CLOSURE IS NECESSARY, THE CONTROLLED AN EQUIVALENT DETOUR ROUTE TO THE SATISFACTION OF THE LANDOWNER OR WELL OWNER.
- 17. ANY WATER INFILTRATING AROUND THE WELL PAD DEWATERING SYSTEM SHALL BE CORRECTED IMMEDIATELY TO PREVENT THE FAILURE OF THE SOILS AND DESIGN ASPECTS OF THE DEWATERING SYSTEMS. ANY EXCESS EROSION OR SLOPE
- FAILURES DUE TO THE WATER INFILTRATION IN THE SUMP AREA SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. 18. ALL DITCH RELIEF AND STREAM CROSSING CULVERTS SHALL MEET ALL MANUFACTURER SPECIFICATIONS INCLUDING THE MINIMUM AND MAXIMUM COVER. IF MANUFACTURER SPECIFICATIONS CANNOT BE MET. CONTRACTOR SHALL CONSULT THE ENGINEER OR MANUFACTURER FOR ALTERNATIVES.
- 1. GARBAGE, FUELS OR ANY SUBSTANCE HARMFULTO HUMAN, AQUATIC OR FISH LIFE SHALL BE PREVENTED FROM ENTERING SPRINGS, STREAMS, PONDS, LAKES, WETLANDS OR ANY WATERCOURSE OR WATER BOD
- 2. OILS, FUELS, LUBRICANTS AND COOLANTS WILL BE PLACED IN SUITABLE CONTAINERS AND DISPOSED PROPERLY.
- 3. ALL TRASH AND GARBAGE WILL BE COLLECTED AND DISPOSED PROPERLY.
- 4. ALL SEDIMENT REMOVED FROM SEDIMENT CAPTURING DEVICES SHALL BE PLACED ON THE TOPSOIL STOCKPILE, THEN SEEDED AND MULCHED, AS NECESSARY, ALTERNATIVELY, THE REMOVED SEDIMENT CAN BE TRANSPORTED TO A SITE WITH
- 5. ALL POLLUTION AND EMERGENCY SPILLS SHALL BE IMMEDIATELY REPORTED TO ANTERO RESOURCES CORPORATION AND THE WV DEP OFFICE OF OIL AND GAS. (EMERGENCY "#1-800-642-3074)

EROSION AND SEDIMENT CONTROL NARRATIVE:

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS TO GRADE AND INSTALL EROSION AND SEDIMENT CONTROL MEASURES, IN PREPARATION FOR THE CONSTRUCTION OF A WELL PAD, ACCESS ROADS AND STAGING AREAS NEAR COUNTY ROUTE 97, IN RTICHIE COUNTY, WEST VIRGINIA. THE CONSTRUCTION INCLUDES ACCESS ROADS, EROSION AND SEDIMENT CONTROLS, AND INCIDENTAL WORK, THE TOTAL APPROXIMATE LAND

EXISTING SITE CONDITIONS: THE EXISTING SITE BEGINS ACCESS FROM COUNTY ROUTE 9/7. THE ACCESS ROAD STARTS WITH A CONSTRUCTED ACCESS ROAD FOR THE WELL PAD, AND STAGING AREA. NO EROSION IS NOTICED ON THIS SITE, OR NATURAL DRAINAGE WAYS

ADJACENT PROPERTY: THE SITE IS BORDERED BY FORESTED LANDS ON ALL SIDES.

CRITICAL AREAS: THE AREA(S) SHOWN ALONG THE FIELD DELINEATED STREAMS, WETLANDS, AND PONDS, AS SHOWN ON THE PLANS, ARE DESIGNATED AS CRITICAL AREA(S), IF PRESENT. ALL 3:1 SLOPES AND STEEPER, DITCHES, AND OTHER CONTROLS SHALL BE CONSIDERED CRITICES OF THE PLANS SHALL BE MONITORED AND MAINTAINED DAILY DURING CONSTRUCTION AND AFTER EACH RAINFALL OF 0.5 INCHES OR GREATER. COMPOST FILTER SOCKS ARE TO BE USED TO PROTECT THESE FIELD DELINEATED AREA(S) FROM SEDIMENT LEAVING ONALLY, ORANGE SAFETY FENCE IS RECOMMENDED TO BE INSTALLED ABOVE/AROUND THESE AREA(S). TO SERVE AS A PHYSICAL BARRIER, ENSURING THE AREA(S) ARE NOT DISTURBED. THE LOCAL GOVERNING AUTHORITY WILL HAVE THE AUTHORITY TO RECOMMEND THE PLACEMENT OF ADDITIONAL BROSION CONTROL MEASURES IN THESE AREAS IF IT BECOMES EVIDENT DURING CONSTRUCTION THAT THE ONES IN PLACE ARE NOT FUNCTIONING SUFFICIENTLY.

SOILS: A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS ON 02-04-2019, 02-05-2019, 02-05-2019, 02-07-2019. THE REPORT PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS DATED 02-07-2019, REFLECTS THE RESULTS OF THE SUBSURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS REPORT WERE USED IN THE PREPARATION OF THESE PLANS. PLEASE REFER TO THE SUBSURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS REPORT WERE USED IN THE PREPARATION OF THESE PLANS. PLEASE REFER TO THE SUBSURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS REPORT WERE USED IN THE PREPARATION OF THESE PLANS. PLEASE REFER TO THE SUBSURFACE INVESTIGATION REPORT BY CIVIL & ENVIRONMENTAL CONSULTANTS FOR

OFF SITE AREAS: THERE ARE NO BORROW AREA(S) OR EXPORT STOCKPILE AREA(S) OUTSIDE OF THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT.

EROSION ANS SEDIMENT CONTROL MEASURES: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE CURRENT WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.

- 1. INSTALL 404 CONTROLS TO ENSURE NO DISTURBANCE TO THE UNPERMITTED DELINEATED AREA(S).
- 3. INSTALL COMPOST FILTER SOCKS AS SHOWN ON THE PLANS TO REMOVE SEDIMENT FROM RUNOFF. SELECTIVELY REMOVE TREES REQUIRED TO INSTALL COMPOST FILTER SOCK IN WOODED AREAS. CLEARING AND GRUBBING SHALL BE KEPT AT A MINIMUM TO INSTALL ESS CON 4. FILL SLOPE SURFACE SHALL BE LEFT IN A ROUGHENED CONDITION TO REDUCE EROSION, CONTRACTOR SHALL REDIRECT RUNOFF AWAY FROM THE FILL SLOPE BY INSTALLING EARTHEN DIVERSION BERMS AND DIVERTING THE RUN OFF TO SEDIMENT TRAPPING DEVICES.
- 5. INSTALL V-DITCHES, DITCH RELIEF CULVERTS, AND OUTLET PROTECTION (RIP-RAP APRONS) AS SHOWN ON THE PLANS.

DEVICES LISTED ABOVE ARE CONSIDERED MINIMUM EROSION AND SEDIMENT CONTROLS, ADDITIONAL CONTROL MEASURES MAY BE NECESSARY DUE TO CONTRACTOR PHASING OR OTHER UNFORESEEN CONDITIONS. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION, ALL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE CURRENT WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL ALL RUNOFF FROM DISTURBED AREAS SHALL PASS THROUGH A SEDIMENT FLITERING DEVICE LOCATED BELOW THE DISTURBED AREA, AT NO TIME WILL UNFILTERED SEDIMENT LADER RUNOFF BE ALLOWED TO LEAVE THE SITE AND ENTER STATE WATERS.

PERMANENT STABILIZATION: ALL AREAS LEFT UNCOVERED BY EITHER BUILDINGS OR PAVEMENT SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING AND WITHIN SEVEN (7) DAYS. AT NO TIME SHALL LAND LAY DORMANT LONGER THAN TWENTY-ONE (21) DAYS.

MAINTENANCE PROGRAM; DURING CONSTRUCTION ACTIVITIES ALL CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE SITE SUPERINTENDENT OR HIS REPRESENTATIVE AND WITHIN TWENTY-FOUR (24) HOURS AFTER ANY SIGNIFICANT RAIN EVENT. WHICH SHALL BE DEFINED AS RAINFALL OF TWO (2) INCHES OR MORE IN A SIX (6) HOUR PERIOD. ONCE CONSTRUCTION ACTIVITIES HAVE CONCLUDED. THE SITE SHALL BE INSPECTED EVERY SEVEN (7) DAYS FOR THE LIFE OF THE FACILITY AND WITHIN TWENTY-FOUR (24) HOURS OF A SIGNIFICANT RAIN EVENT AS DEFINED ABOVE, ANY DAMAGED STRUCTURAL MEASURES ARE TO BE REPAIRED, BY THE END OF THE DAY, OR AT THE EARLIEST TIME IN WHICH IT IS SAFE TO DO SO. SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF GRASS IS MAINTAINED. ALL AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED UNTIL GRASS IS ESTABLISHED.

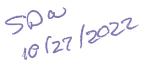
TRAPPED SEDIMENT IS TO BE REMOVED AS REQUIRED TO MAINTAIN 50% TRAP AND/OR SOCK EFFICIENCY AND DISPOSED OF AS ENGINEERED FILL ON THE STOCKPILES

INLETS AND OUTLETS OF DITCH RELIEF CULVERTS SHALL BE CHECKED REGULARLY FOR SEDIMENT BUILD-UP. IF THE INLET AND/OR OUTLET IS CLOGGED BY 50% OR GREATER, IT SHALL BE REMOVED AND CLEANED OR REPLACED IMMEDIATELY. SECIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SECIMENT BE WASHED, SHOVELED OR SWEPT INTO ANY ROADSIDE DITCH,

ANY DISTURBED AREAS ALONG THE ACCESS ROAD SHALL BE STABILIZED AS CONSTRUCTION PROCEEDS, PRIOR TO CONTINUING FURTHER ACCESS ROAD CONSTRUCTION STABILIZATION SHALL BE PROVIDED WITH EITHER ROCK STABILIZATION OR SEEDING AND MULCHING METHODS NOTE: THE WY DEP RETAINS THE RIGHT TO ADD AND/OR MODIFY THESE EROSION AND SEDIMENT CONTROL MEASURES DURING THE CONSTRUCTION PROCESS, WITHIN REASON, TO ENSURE A DEQUATE PROTECTION TO THE PUBLIC AND THE ENVIRONMENT.

1. CONTRACTOR SHALL APPLY SEED AND STABILIZATION IN ACCORDANCE WITH THE WY DEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE (BMP) MANUAL, BASED UPON SITE SPECIFIC SOIL CHARACTERISTICS 2. WHEREVER SEEDING IS TO BE APPLIED TO STEEP SLOPES (3H:1V), SEED MIXTURES SHOULD BE SELECTED THAT ARE APPROPRIATE FOR STEEP SLOPES.

- 1, TEMPORARY SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS SUBJECT TO LITTLE OR NO CONSTRUCTION TRAFFIC.
- 2. ALL HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES SHALL BE SPRINKLED WITH WATER UNTIL THE SURFACE IS WET AND REPEATED AS NEEDED TO CONTROL DUST.





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ANTERO RESOURCES GENEVIEVE WELL PAD WEST UNION DISTRICT DODDRIDGE COUNTY, WV

11/25/2022

NO SURFACE OR UNDERGROUND MINES ARE SHOWN WITHIN THE AOI PER WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, 01/23/2018.

