



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

Wednesday, May 28, 2025
WELL WORK PERMIT
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

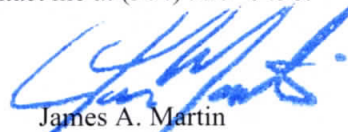
DENVER, CO 80202

Re: Permit approval for Flanigan 5V
47-033-06106-00-00

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.



James A. Martin
Chief

Operator's Well Number: Flanigan 5V
Farm Name: Robert G & Christine E Flanigan
U.S. WELL NUMBER: 47-033-06106-00-00
Horizontal 6A New Drill
Date Issued: 5/28/2025

PERMIT CONDITIONS

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

CONDITIONS

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

05/30/2025

WW-6B
(04/15)

4703306106
API NO: 47-033
OPERATOR WELL NO. Flanigan Unit 5V
Well Pad Name: Flanigan Pad

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

- 1) Well Operator: Antero Resources Corporation 494507062 033 - Harris Eagle Wolf Summit 7.5'
Operator ID County District Quadrangle
- 2) Operator's Well Number: Flanigan Unit 5V Well Pad Name: Flanigan Pad
- 3) Farm Name/Surface Owner: Robert G. & Christine E. Flanigan, et al Public Road Access: Gregorys Run Road
- 4) Elevation, current ground: 1,161' Elevation, proposed post-construction: 1,154'
- 5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow X Deep _____
Horizontal X
- 6) Existing Pad: Yes or No Yes
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7500' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2800#
- 8) Proposed Total Vertical Depth: 7700' TVD
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 7700' MD
- 11) Proposed Horizontal Leg Length: 0'
- 12) Approximate Fresh Water Strata Depths: 424'
- 13) Method to Determine Fresh Water Depths: From 47033009510000
- 14) Approximate Saltwater Depths: 1176'
- 15) Approximate Coal Seam Depths: N/A
- 16) Approximate Depth to Possible Void (coal mine, karst, other): Yes
- 17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X
- (a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

Just Project
5-13-2025

WW-6B
(04/15)

4703306106
API NO. 47- 033 -
OPERATOR WELL NO. Flanigan Unit 5V
Well Pad Name: Flanigan Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	474'	474'	CTS, 494 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	7700'	7700'	1013 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

9-44 Propert
5-13-2025

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

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Kind:	N/A			WV Department of Environmental Protection
Sizes:	N/A			
Depths Set:	N/A			

4703306106

WW-6B
(10/14)

API NO. 47- 033 -

OPERATOR WELL NO. Flanigan Unit 5V

Well Pad Name: Flanigan Pad

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

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

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

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

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

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21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 12.63 acres

22) Area to be disturbed for well pad only, less access road (acres): 7.64 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

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

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

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

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

Conductor: no additives, Class A/L cement.

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

Intermediate: Class A/L cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51

Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

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

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

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

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

*Note: Attach additional sheets as needed.

Jeff Pursant
5-13-2025

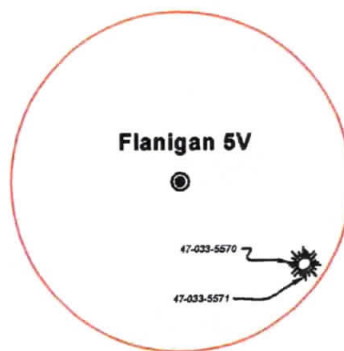
47 03 30 61 06

LEGEND

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



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



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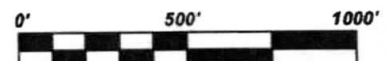
Bridgeport Office
Phone: (304) 848-5035
Fax: (304) 848-5037



172 Thompson Drive
Bridgeport, WV 26330

PARTY CHIEF: C. Lynch	DRAWN BY: C. Robinson
RESEARCH: J. Miller	PREPARED: April 14, 2025
SURVEYED: Dec. 2016	PROJECT NO: 173-38-E-17
FIELD CREW: C.L., K.M.	DRAWING NO: Flanigan 5V AOR

Sheet 1 of 1



Scale: 1 Inch = 500 feet

05/30/2025

UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47033055700000	HARBERT UNIT	1H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP	14,295	7284 - 14227	Marcellus	
47033055710000	HARBERT UNIT	2H	ANTERO RESOURCES CORP	ANTERO RESOURCES CORP	14,286	7196 - 14221	Marcellus	

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April 16, 2025

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

RE: Request for Variance – Class L Cement
Flanigan Unit 5V
Harrison County, WV

Mr. Brewer:

Pursuant to 35CSR8 Section 9.2.h.8, Antero Resources Corporation ("Antero") would like to implement the variance to allow Class L Cement in place of Class A cement relating to the construction of the following horizontal wells (Flanigan Unit 5V) on the Flanigan Pad.

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

If you have any questions or need further information, please feel free to contact Stefan Gaspar, Permitting Agent, at (303) 357-6959 or email at sgaspar@anteroresources.com.

Sincerely,



Stefan Gaspar
Permitting Agent
Antero Resources Corporation

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west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
Phone (304) 926-0450

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

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

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

REPORT OF THE OFFICE

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

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FINDINGS OF FACT

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

Promoting a healthy environment.

05/30/2025

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

CONCLUSIONS OF LAW

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

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


ORDER

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

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

IN THE NAME OF THE STATE OF WEST VIRGINIA

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


James Martin, Chief
Office of Oil and Gas

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WW-9
(4/16)API Number 47 - 033 -
Operator's Well No. Flanigan Unit 5VSTATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources Corporation OP Code 494507062Watershed (HUC 10) Tenmile Creek Quadrangle Wolf Summit 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 ☒If so, please describe anticipated pit waste: No pit will be used at this site (Drilling and Flowback Fluids will be stored in tanks. Cuttings will be tanked and hauled off site.)Will a synthetic liner be used in the pit? Yes ☐ No ☒ If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

- ☐ Land Application
- ☒ Underground Injection (UIC Permit Number *UIC Permit # will be provided on Form WR-34)
- ☒ Reuse (at API Number Future permitted well locations when applicable. API# will be provided on Form WR-34)
- ☒ Off Site Disposal (Supply form WW-9 for disposal location Meadowfill Landfill Permit #SWF-1032-98)
- ☐ Other (Explain Northwestern Landfill Permit #SWF-1025/ WV0109410
Wetzel Co Landfill Permit #SWF-1021)

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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 KohlerCompany Official (Typed Name) Gretchen KohlerCompany Official Title Director of Environmental & Regulatory ComplianceSubscribed and sworn before me this 17th day of April, 20 25Stefan Gaspar

Notary Public

My commission expires November 15, 2026Q41 Purport 5-13-2025

05/30/2025

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Form WW-9

Operator's Well No. Flanigan Unit 5V**Antero Resources Corporation**Proposed Revegetation Treatment: Acres Disturbed 12.63 acres Prevegetation pH _____Lime 2-4 Tons/acre or to correct to pH 6.5Fertilizer type Hay or straw or Wood Fiber (will be used where needed)Fertilizer amount 500 lbs/acreMulch 2-3 Tons/acre

Access Road "A" (4.70 acres) + Well Pad (7.64 acres) + Excess/Topsoil Material Stockpiles (0.29 acres) = 12.63 Acres

Temporary**Permanent**

Seed Type	lbs/acre
Annual Ryegrass	40
Field Bromegrass	40

See attached Table IV-3 for additional seed type (Flanigan Pad Design)

*or type of grass seed requested by surface owner

Seed Type	lbs/acre
Crownvetch	10-15
Tall Fescue / Rygrass	30 / 20

See attached Table IV-4A for additional seed type (Flanigan Pad Design)

*or type of grass seed requested by surface owner

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Jeff Pursot 5-13-2025

Comments: _____

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Title: InspectorDate: 5-13-2025

Field Reviewed?

☒ Yes☐ No

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Form WW-9 Additives Attachment**SURFACE INTERVAL**

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

INTERMEDIATE INTERVAL***STIFF FOAM RECIPE:***

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

PRODUCTION INTERVAL

1. Alpha 1655
Salt Inhibitor
2. Mil-Carb
Calcium Carbonate
3. Cottonseed Hulls
Cellulose-Cottonseed Pellets – LCM
4. Mil-Seal
Vegetable, Cotton & Cellulose-Based Fiber Blend – LCM
5. Clay-Trol
Amine Acid Complex – Shale Stabilizer
6. Xan-Plex
Viscosifier For Water Based Muds
7. Mil-Pac (All Grades)
Sodium Carboxymethylcellulose – Filtration Control Agent
8. New Drill
Anionic Polyacrylamide Copolymer Emulsion – Shale Stabilizer
9. Caustic Soda
Sodium Hydroxide – Alkalinity Control
10. Mil-Lime
Calcium Hydroxide – Lime
11. LD-9
Polyether Polyol – Drilling Fluid Defoamer
12. Mil Mica
Hydro-Biotite Mica – LCM

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13. Escaid 110
Drilling Fluid Solvent – Aliphatic Hydrocarbon
14. Ligco
Highly Oxidized Leonardite – Filtration Control Agent
15. Super Sweep
Polypropylene – Hole Cleaning Agent
16. Sulfatrol K
Drilling Fluid Additive – Sulfonated Asphalt Residuum
17. Sodium Chloride, Anhydrous
Inorganic Salt
18. D-D
Drilling Detergent – Surfactant
19. Terra-Rate
Organic Surfactant Blend
20. W.O. Defoam
Alcohol-Based Defoamer
21. Perma-Lose HT
Fluid Loss Reducer For Water-Based Muds
22. Xan-Plex D
Polysaccharide Polymer – Drilling Fluid Viscosifier
23. Walnut Shells
Ground Cellulosic Material – Ground Walnut Shells – LCM
24. Mil-Graphite
Natural Graphite – LCM
25. Mil Bar
Barite – Weighting Agent
26. X-Cide 102
Biocide
27. Soda Ash
Sodium Carbonate – Alkalinity Control Agent
28. Clay Trol
Amine Acid complex – Shale Stabilizer
29. Sulfatrol
Sulfonated Asphalt – Shale Control Additive
30. Xanvis
Viscosifier For Water-Based Muds
31. Milstarch
Starch – Fluid Loss Reducer For Water Based Muds
32. Mil-Lube
Drilling Fluid Lubricant

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911 Address
4104 Gregorys Run Road,
Clarksburg, WV 26301

Well Site Safety Plan

Antero Resources

Well Name: FLANIGAN UNIT 5V

Location: FLANIGAN PAD

Jeff Purst
5-13-2025

Harrison County/Eagle District

GPS Coordinates:

Entrance - Lat 39.344071 /Long -80.401338 (NAD83)

Pad Center - Lat 39.345875 /Long -80.395252 (NAD83)

Driving Directions:

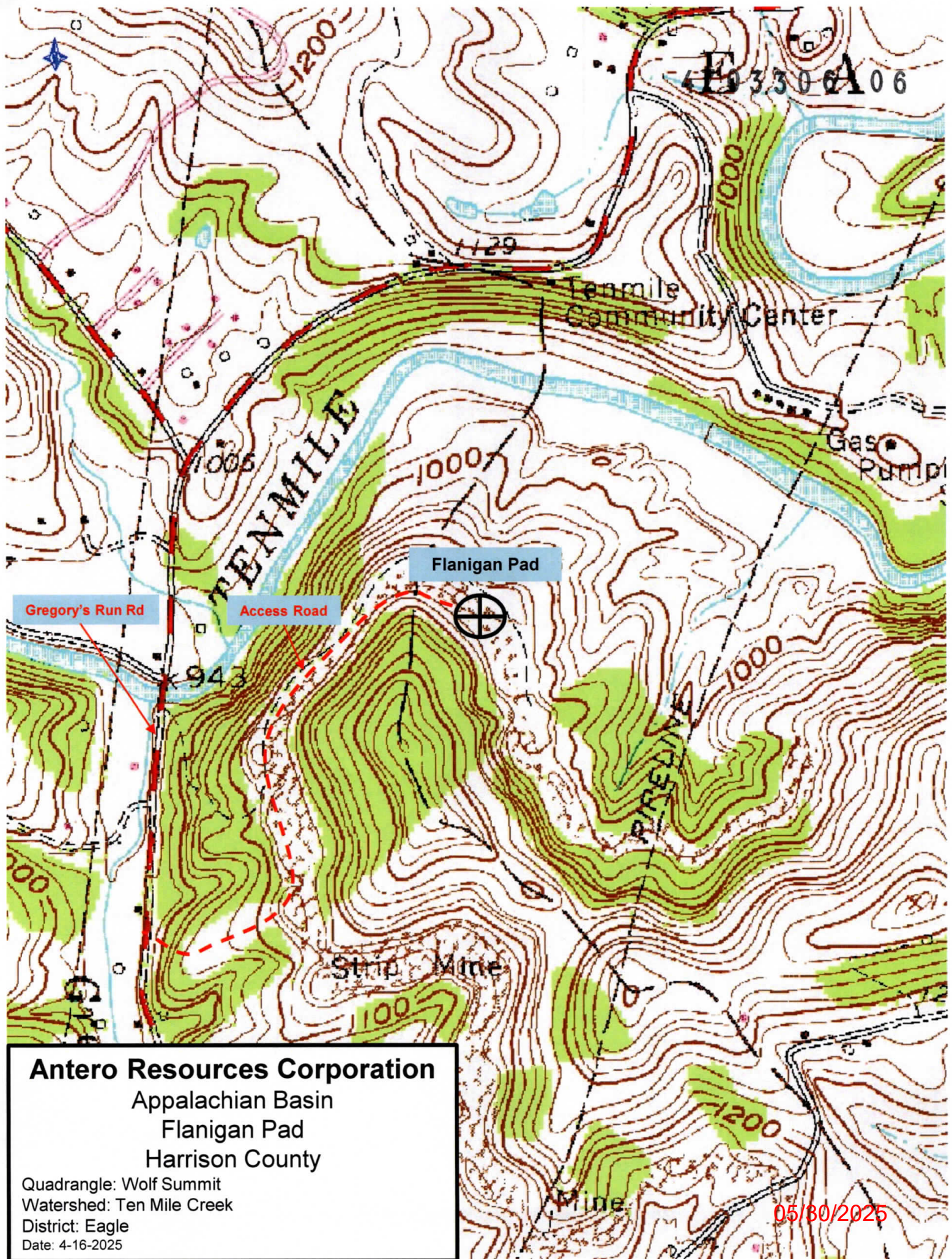
1. From US50 turn north onto either entrance of CO-50/40 (Main entrance is at stoplight and across from Sun Valley Rd (WV-98))
2. Continue on CO-50/40 and turn north again onto Wilsonburg Rd (CO-9 & 11)
3. Travel on Wilsonburg Rd (CO-9) for approximately 0.7 miles and turn right to stay on CO-9 (now Gregory's Run)
4. Follow CO-9 for approximately 4.1 miles
5. Turn right onto lease road

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

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MAY 19 2025

1



Antero Resources Corporation
Appalachian Basin
Flanigan Pad
Harrison County

Quadrangle: Wolf Summit
Watershed: Ten Mile Creek
District: Eagle
Date: 4-16-2025

05/30/2025

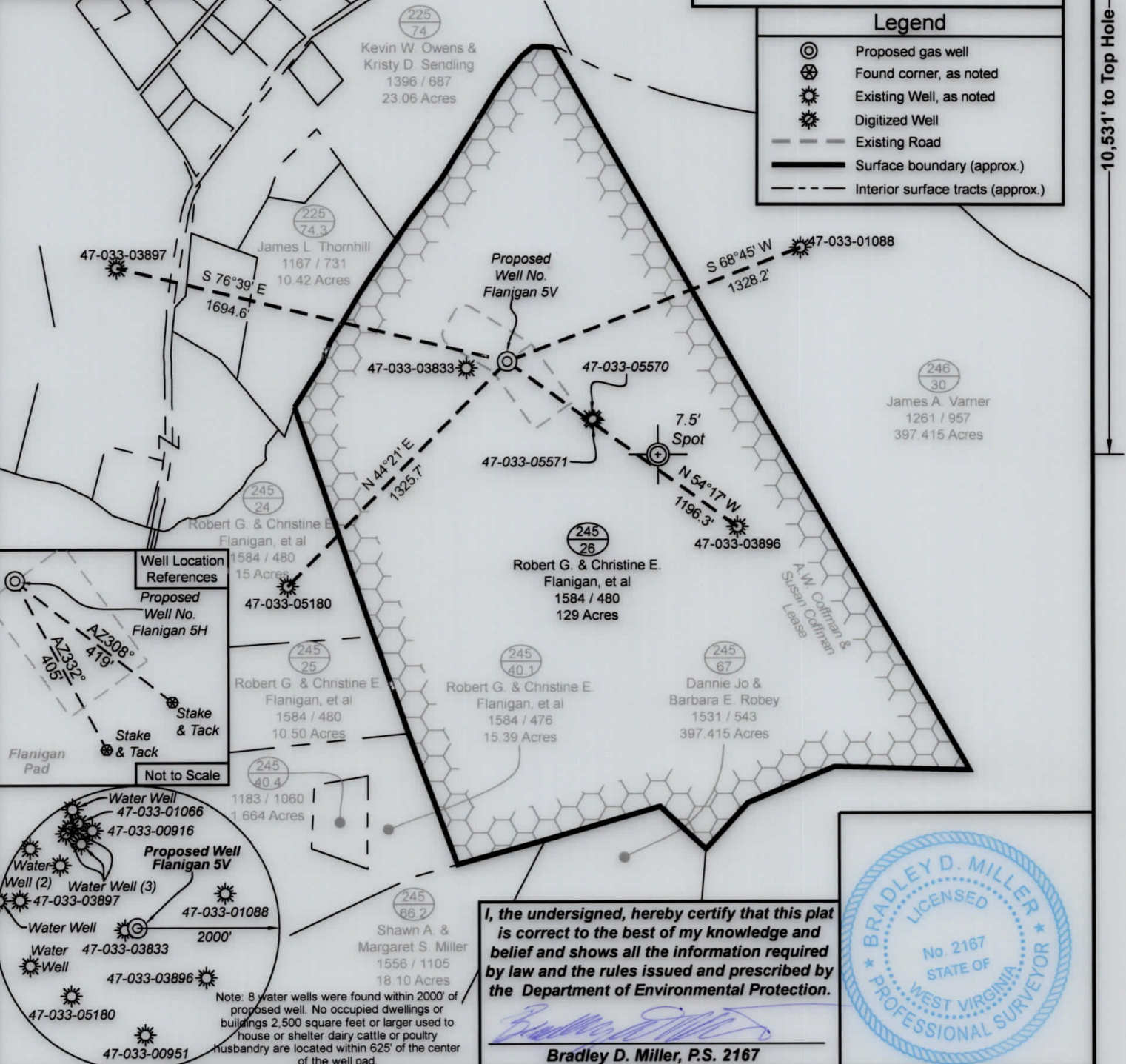
Antero Resources
Well No. Flanigan 5V

Antero Resources Corporation



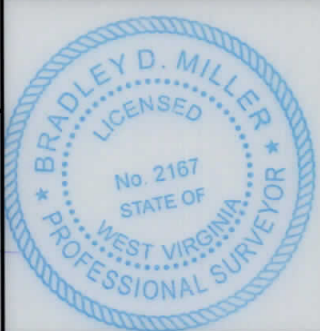
Notes:
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Well No. Flanigan 5V coordinates are
N: 309,426.42' Latitude: 39°20'45.91"
E: 1,746,523.33' Longitude: 80°23'46.65"
UTM Zone 17, NAD 1983 UTM Zone 17, NAD 1927
Top Hole Coordinates Top Hole Coordinates
N: 4,355,366.99m N: 14,288,516.17"
E: 552,036.90m E: 1,811,092.68"
Plat orientation and corner and well references are based
upon the grid north meridian.
Well location references are based upon the magnetic
meridian.

- Legend
- Proposed gas well
 - Found corner, as noted
 - Existing Well, as noted
 - Digitized Well
 - Existing Road
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller, P.S. 2167



FILE NO: 173-36-E-17
DRAWING NO: Flanigan 5V Well Plat
SCALE: 1" = 600'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Glenville, WV

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

DATE: May 13 20 25
OPERATOR'S WELL NO. Flanigan 5V
API WELL NO
47 - 033 - 06106
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☒ SHALLOW

LOCATION: ELEVATION: Proposed 1,154.0' WATERSHED: Tenmile Creek QUADRANGLE: Wolf Summit
DISTRICT: Eagle COUNTY: Harrison

SURFACE OWNER: Robert G. & Christine E. Flanigan, et al ACREAGE: 129
ROYALTY OWNER: A.W. Coffman & Susan Coffman LEASE NO: ACREAGE: 129


PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☒ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,700' TVD 7,700' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Conrad Baston
ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
Denver, CO 80202 Bridgeport, WV 26330


Antero Resources
Well No. Flanigan 5V


Antero Resources Corporation





Notes:
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Well No. Flanigan 5V coordinates are
N: 309,426.42' Latitude: 39°20'45.91"
E: 1,746,523.33' Longitude: 80°23'46.65"
UTM Zone 17, NAD 1983 UTM Zone 17, NAD 1927
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N: 4,355,366.99m N: 14,288,516.17'
E: 552,036.90m E: 1,811,092.68'
Plat orientation and corner and well references are based
upon the grid north meridian.
Well location references are based upon the magnetic
meridian.


Legend


 Proposed gas well


 Found corner, as noted

 Existing Well, as noted

 Digitized Well

 Existing Road

 Surface boundary (approx.)

 Interior surface tracts (approx.)

225
74

Kevin W Owens &
Kristy D. Sendling
1396 / 687
23.06 Acres

225
74.3

James L. Thornhill
1167 / 731
10.42 Acres

245
24

Robert G. & Christine E.
Flanigan, et al
1584 / 480
15 Acres

245
25

Robert G. & Christine E.
Flanigan, et al
1584 / 480
10.50 Acres

245
40.1

Robert G. & Christine E.
Flanigan, et al
1584 / 476
15.39 Acres

245
67

Dannie Jo &
Barbara E. Robey
1531 / 543
397.415 Acres

245
30

James A. Varner
1261 / 957
397.415 Acres

245
40.4

Shawn A. &
Margaret S. Miller
1556 / 1105
18.10 Acres

245
66.2

Shawn A. &
Margaret S. Miller
1556 / 1105
18.10 Acres

47-033-03897

47-033-03833

47-033-05570

47-033-05571

47-033-03896

47-033-05180

47-033-01088

47-033-01066

47-033-00916

47-033-03833

47-033-03896

47-033-05180

47-033-00951

Proposed Well No.
Flanigan 5V

7.5' Spot

Stake & Tack

Stake & Tack

Well Location
References

Proposed Well No.
Flanigan 5H

Not to Scale

Water Well
47-033-01066

Water Well (2)
47-033-03897

Water Well (3)
47-033-01088

Water Well
47-033-03833

Water Well
47-033-03896


Water Well
47-033-05180

Water Well
47-033-00951

2000'

Note: 8 water wells were found within 2000' of
proposed well. No occupied dwellings or
buildings 2,500 square feet or larger used to
house or shelter dairy cattle or poultry
husbandry are located within 625' of the center
of the well pad.

I, the undersigned, hereby certify that this plat
is correct to the best of my knowledge and
belief and shows all the information required
by law and the rules issued and prescribed by
the Department of Environmental Protection.


Bradley D. Miller, P.S. 2167

BRADLEY D. MILLER
LICENSED
No 2167
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

FILE NO: 173-36-E-17

DRAWING NO: Flanigan 5V Well Plat

SCALE: 1" = 600'

MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION:
CORS, Glenville, WV

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

DATE: May 13 20 25

OPERATOR'S WELL NO. Flanigan 5V

API WELL NO

47 - 033 - 06106

STATE - COUNTY - PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☒ SHALLOW

LOCATION: ELEVATION: Proposed 1,154.0' WATERSHED: Tenmile Creek QUADRANGLE: Wolf Summit

DISTRICT: Eagle COUNTY: Harrison

SURFACE OWNER: Robert G. & Christine E. Flanigan, et al ACREAGE: 129

ROYALTY OWNER: A.W. Coffman & Susan Coffman LEASE NO: ACREAGE: 129

PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☒ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,700' TVD
7,700' MD

WELL OPERATOR: Antero Resources Corporation

DESIGNATED AGENT: Conrad Baston

ADDRESS: 1615 Wynkoop Street

ADDRESS: 535 White Oaks Blvd.

Denver, CO 80202

Bridgeport, WV 26330

WW-6A1
(5/13)

Operator's Well No. Flanigan 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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
A.W. Coffman & Susan Coffman Lease				
A.W. Coffman & Susan Coffman Lease	Hope Natural Gas	Hope Natural Gas	1/8	0143/0420
Consolidated Gas Supply Corporation	Consolidated Gas Supply Corporation	Consolidated Gas Supply Corporation	Conveyed	0903/0179
Consolidated Gas Transmission Corporation	Consolidated Gas Transmission Corporation	Consolidated Gas Transmission Corporation	Conveyed	1136/0250
CNG Development Company	CNG Development Company	CNG Development Company	Conveyed	1143/0921
CNG Producing Company	CNG Producing Company	CNG Producing Company	Name Change	WVSOS
Dominion Exploration & Production, Inc.	Dominion Exploration & Production, Inc.	Dominion Exploration & Production, Inc.	Name Change	0058/0366
Antero Resources Appalachian Corporation	Antero resources Appalachian Corporation	Antero resources Appalachian Corporation	Assignment	1423/1068
	Antero Resources Corporation	Antero Resources Corporation	Name Change	0002/0914

*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.

*Co-tenancy utilization – Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with the development of certain royalty owners' interests in this tract.

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

**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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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: Senior Vice President of Land

4703306106



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

April 16, 2025

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

RECEIVED
Office of Oil and Gas
APR 18 2025
WV Department of
Environmental Protection

RE: Flanigan Unit 5V
Quadrangle: Wolf Summit 7.5'
Harrison County/Eagle District, West Virginia

Mr. Martin:

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Autum Boehnlein", is written over a light blue horizontal line.

Autum Boehnlein
Landman Associate

05/30/2025

4703306106

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

Date of Notice Certification: 04/16/2025

API No. 47- 033 -

Operator's Well No. Flanigan Unit 5V

Well Pad Name: Flanigan Pad

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: West Virginia
County: Harrison
District: Eagle
Quadrangle: Wolf Summit 7.5'
Watershed: Tenmile Creek

UTM NAD 83 Easting: 552036.90m
Northing: 4355366.99m
Public Road Access: Gregorys Run Road
Generally used farm name: Robert G. & Christine E. Flanigan, et al

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

- ☐ 1. NOTICE OF SEISMIC ACTIVITY or ☒ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- ☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☒ NO PLAT SURVEY WAS CONDUCTED
- ☒ 3. NOTICE OF INTENT TO DRILL or ☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or
- ☐ WRITTEN WAIVER BY SURFACE OWNER
(PLEASE ATTACH)
- ☒ 4. NOTICE OF PLANNED OPERATION
- ☒ 5. PUBLIC NOTICE
- ☒ 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- ☐ RECEIVED/
NOT REQUIRED
- ☐ RECEIVED
- ☐ RECEIVED/
NOT REQUIRED
- ☐ RECEIVED
- ☐ RECEIVED
- ☐ RECEIVED

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APR 18 2025
WV Department of
Environmental Protection

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.

05/30/2025

Certification of Notice is hereby given:

4703306106

THEREFORE, I Tom Waltz, 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

By: Tom Waltz 

Its: VP of Completions

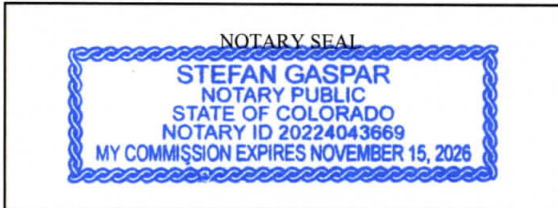
Telephone: 303-357-6705

Address: 1615 Wynkoop Street

Denver, CO 80202

Facsimile: 303-357-6959

Email: sgaspar@anteroresources.com



Subscribed and sworn before me this 17 day of April, 2025.

Stefan Gaspar

Notary Public

My Commission Expires November 15, 2026

Oil and Gas Privacy Notice:

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

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05/30/2025

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 4/17/2025 **Date Permit Application Filed:** 4/17/2025

Notice of:

- ☒ PERMIT FOR ANY WELL WORK ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- ☐ PERSONAL SERVICE ☐ REGISTERED MAIL ☒ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

☒ Application Notice ☒ WSSP Notice ☒ E&S Plan Notice ☒ Well Plat Notice is hereby provided to:

☒ SURFACE OWNER(s)

Name: Robert G. & Christine E. Flanigan, et al
Address: 243 Flanigan Oaks Drive
Clarksburg, WV 26301

Name: Sharon E. Farmer
Address: 6201 Ford Road
Frederick, MD 21702

☐ SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____
Address: _____

Name: _____
Address: _____

☐ SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

☐ COAL OWNER OR LESSEE

Name: NO DECLARATIONS ON RECORD WITH COUNTY
Address: _____

☐ COAL OPERATOR

Name: NO DECLARATIONS ON RECORD WITH COUNTY
Address: _____

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

Name: PLEASE SEE ATTACHMENT
Address: _____

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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APR 18 2025
WV Department of
Environmental Protection

05/30/2025

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

05/30/2025

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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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.**

05/30/2025

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.

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WW-6A
(8-13)

API NO. 47-03306106
OPERATOR WELL NO. Flanigan Unit 5V
Well Pad Name: Flanigan Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation
Telephone: (303) 357-6959
Email: sgaspar@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 deprivacyofficer@wv.gov.



Subscribed and sworn before me this 17 day of April, 2025.
Stefan Gaspar Notary Public
My Commission Expires November 15, 2026

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WV Department of
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WW-6A Attachment - Notice of Application:**Surface Owner of Water Well
and/or Water Purveyor(s):****TM 225-74**

Owner: Kevin W. Owens & Kristy D. Sendling
Address: 4386 Gregorys Run Rd.
Clarksburg, WV 26301

TM 225-74.1

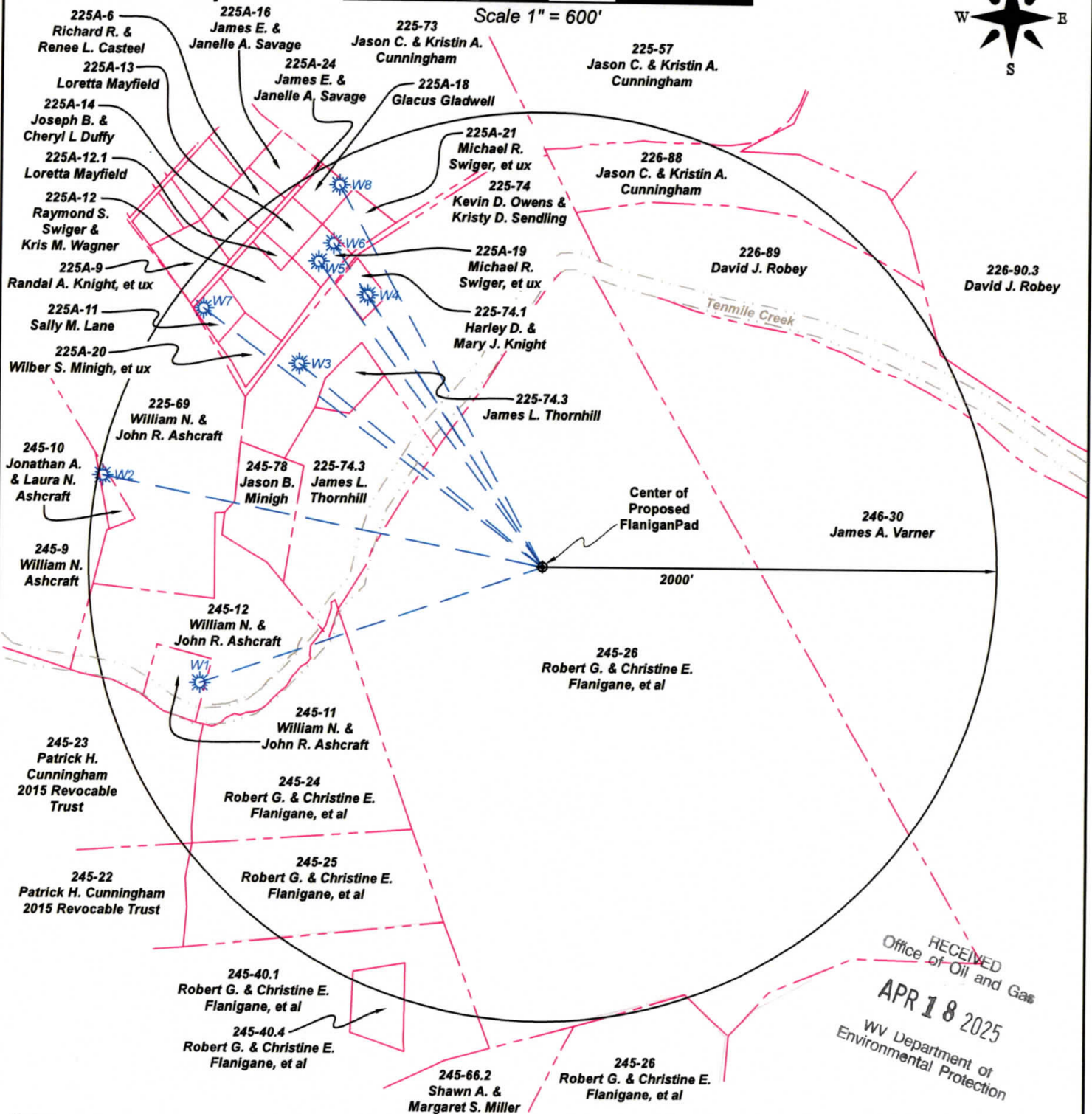
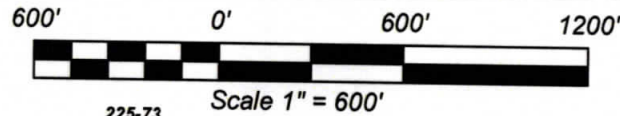
Owner: Harley D. & Mary J. Knight
Address: 4490 Gregorys Run Road
Clarksburg, WV 26301

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Flanigan Drill Pad Water Well Map



Owners

- W1. William N. & John R. Ashcraft, 4123 Gregorys Run Road, Clarksburg, WV 26301
- W2. Johnathan A. & Laura N. Ashcraft, 136 Meadows Edge Road, Clarksburg, WV 26301
- W3. Kevin W. Owens & Kristy D. Sendling, 4386 Gregorys Run Road, Clarksburg, WV 26386
- W4. Harley D. & Mary J. Knight, 4490 Gregorys Run Road, Clarksburg, WV 26386
- W5. Michael R. Swiger, et ux, 4491 Gregorys Run Road, Clarksburg, WV 26301
- W6. Michael R. Swiger, et ux, 4491 Gregorys Run Road, Clarksburg, WV 26301
- W7. Sally M. Lane, 72 Isaac Creek Road, Clarksburg, WV 26301
- W8. Glacus Gladwell, 136 Leafy Lane, Clarksburg, WV 26301

Tag	Azimuth	Dist.	Latitude	Longitude
W1	AZ70°51'	1,593.2'	39°20'40.60"	80°24'05.74"
W2	AZ101°15'	1,978.9'	39°20'49.54"	80°24'11.40"
W3	AZ129°25'	1,295.7'	39°20'54.57"	80°24'00.48"
W4	AZ146°44'	1,422.6'	39°20'57.59"	80°23'56.73"
W5	AZ143°14'	1,665.4'	39°20'59.00"	80°23'59.51"
W6	AZ146°38'	1,693.5'	39°20'59.80"	80°23'58.68"
W7	AZ126°50'	1,877.0'	39°20'56.88"	80°24'05.91"
W8	AZ151°32'	1,901.8'	39°21'02.35"	80°23'58.40"

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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 provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 04/03/2025

Date Permit Application Filed: 04/17/2025

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

☐ HAND DELIVERY ☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Robert G. & Christine Flanigan

Address: 243 Flanigan Oaks Drive

Clarksburg, WV 26301

Name: Sharon E. Farmer

Address: 6201 Ford Road

Frederick, MD 21702

RECEIVED
Office of Oil and Gas
APR 18 2025
WV Department of
Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	West Virginia	UTM NAD 83	Easting:	552036.90m
County:	Harrison		Northing:	4355366.99m
District:	Eagle	Public Road Access:		Gregorys Run Rd
Quadrangle:	Wolf Summit 7.5'	Generally used farm name:		Robert G. & Christine E. Flanigan, et al
Watershed:	Tenmile Creek			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. 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.

Notice is hereby given by:

Well Operator: Antero Resources Corporation
Address: 1615 Wynkoop St.
Denver, CO 80202
Telephone: 303-357-6959
Email: sgaspar@anteroresources.com
Facsimile: 303-357-7315

Authorized Representative: Stefan Gaspar
Address: 1615 Wynkoop St.
Denver, CO 80202
Telephone: 303-357-6959
Email: sgaspar@anteroresources.com
Facsimile: 303-357-7315

Oil and Gas Privacy Notice:

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

05/30/2025

4703306106

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 04/17/2025

Date Permit Application Filed: 04/17/2025

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☒ **CERTIFIED MAIL**
RETURN RECEIPT REQUESTED

☐ **HAND**
DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Robert G. & Christine E. Flanigan, et al

Address: 243 Flanigan Oaks Drive

Clarksburg, WV 26301

Name: Sharon E. Farmer

Address: 6201 Ford Road

Frederick, MD 21702

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Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia
County: Harrison
District: Eagle
Quadrangle: Wolf Summit 7.5'
Watershed: Tenmile Creek

UTM NAD 83 Easting: 552036.90m
 Northing: 4355366.99m
Public Road Access: Gregorys Run Road
Generally used farm name: Robert G. & Christine E. Flanigan, et al

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. 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 Operator: Antero Resources Corporation

Telephone: (303) 357-6959

Email: sgaspar@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.

05/30/2025



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**WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION**

1900 Kanawha Boulevard East • Building Five • Room 109
Charleston, West Virginia 25305-0440 • (304) 558-0444

Michael J. DeMers
Deputy Secretary of Transportation

Stephen T. Rumbaugh, P.E.
Secretary of Transportation
Commissioner of Highways

April 10, 2025

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 Flanigan Well Pad, Harrison County
Flanigan Unit 5V Well Site**

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WV Department of
Environmental Protection

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2015-0766 which has been issued to Antero Resources Corporation for access to the State Road for a well site located off Harrison County Route 9 SLS MP 5.072.

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

Very Truly Yours,

Lacy D. Pratt
Central Office O&G Coordinator

Cc: Stefan Gaspar
Antero Resources Corporation
OM, D-4
File

05/30/2025

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

FRACTURING/STIMULATING INTERVAL

Additive	Chemical Abstract Service Number (CAS #)
1. Fresh Water	7732-18-5
2. 2 Phosphobutane 1,2,4 tricarboxylic acid	37971-36-1
3. Ammonium Persulfate	7727-54-0
4. Anionic copolymer	Proprietary
5. Anionic polymer	Proprietary
6. BTEX Free Hydrotreated Heavy Naptha	64742-48-9
7. Cellulase enzyme	(Proprietary)
8. Demulsifier Base	(Proprietary)
9. 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. Silica 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-quaternized	72480-70-7
32. Solvent Naptha, petroleum, heavy aliph	64742-96-7
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. Hexamethylene 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 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

OPERATOR: Antero Resources Corporation WELL NO: Flanigan Unit 5V

PAD NAME: Flanigan Pad

REVIEWED BY: Stefan Gaspar SIGNATURE: 

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

- ☒ At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
☐ DEP Waiver and Permit Conditions
- ☒ At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
☐ DEP Waiver and Permit Conditions
- ☒ At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
☐ DEP Waiver and Permit 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
- ☒ At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
☐ Surface Owner Waiver and Recorded with County Clerk, OR
☐ DEP Variance and Permit Conditions
- ☒ 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

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FLANIGAN WE SITE DESIGN & CONST EROSION & SEDIMENT C

SARDIS & EAGLE DISTRICT, HARRIS
OUTLET TENMILE CREEK

WOLF SUMMIT USGS 7.5 Q

LOCATION COORDINATES:

ACCESS ROAD ENTRANCE
LATITUDE: 39.344071 LONGITUDE: -80.401338 (NAD 83)
LATITUDE: 39.343983 LONGITUDE: -80.401525 (NAD 27)
N 4355130.49 E 551587.40 (UTM ZONE 17 METERS)

CENTROID OF TANK

LATITUDE: 39.345436 LONGITUDE: -80.394438 (NAD 83)
LATITUDE: 39.345348 LONGITUDE: -80.394626 (NAD 27)
N 4355285.91 E 552180.94 (UTM ZONE 17 METERS)

CENTROID OF PAD

LATITUDE: 39.345875 LONGITUDE: -80.395252 (NAD 83)
LATITUDE: 39.345787 LONGITUDE: -80.395440 (NAD 27)
N 4355334.17 E 552110.46 (UTM ZONE 17 METERS)

GENERAL DESCRIPTION:

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

FLOODPLAIN NOTES:

THE PROPOSED SITE IS LOCATED WITHIN FEMA FLOOD ZONE "X" PER FEMA FLOOD MAP #54033C0132D.

MISS UTILITY STATEMENT:

ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. 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 IN MARCH, 2025 BY ALLSTAR 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 MARCH 10, 2025 DELINEATION MAP WAS PREPARED BY ALLSTAR AND SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE MAP DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WVDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THIS EXHIBIT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

GEOTECHNICAL NOTES:

A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY PENNSYLVANIA SOIL & ROCK, INC. ON _____, 2025 - _____, 2025. THE REPORT PREPARED BY PENNSYLVANIA SOIL & ROCK, INC. DATED _____, 2025, 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 REPORT BY PENNSYLVANIA SOIL & ROCK, INC. FOR ADDITIONAL INFORMATION, AS NEEDED.

PROJECT CONTACTS:

TJ MCCULLOUGH - UTILITY COORDINATOR
CELL: (304) 641-9827

OPERATOR:

ANTERO RESOURCES CORPORATION
535 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE: (304) 842-4100
FAX: (304) 842-4102

MARK HUTSON - LAND AGENT
CELL: (304) 669-8315

ENGINEER/SURVEYOR:

NAVITUS ENGINEERING, INC.
CYRUS S. KUMP, PE - PROJECT
MANAGER/ENGINEER
OFFICE: (888) 662-4185 CELL: (540) 686-6747

ENVIRONMENTAL:

ALLSTAR ECOLOGY, LLC
RYAN L. WARD - ENVIRONMENTAL SCIENTIST
OFFICE: (866) 213-2666 CELL: (304) 692-7477

GEOTECHNICAL:

PENNSYLVANIA SOIL & ROCK, INC.
CHRISTOPHER W. SAMIOS - PROJECT ENGINEER
OFFICE: (412) 372-4000 CELL: (412) 589-0662

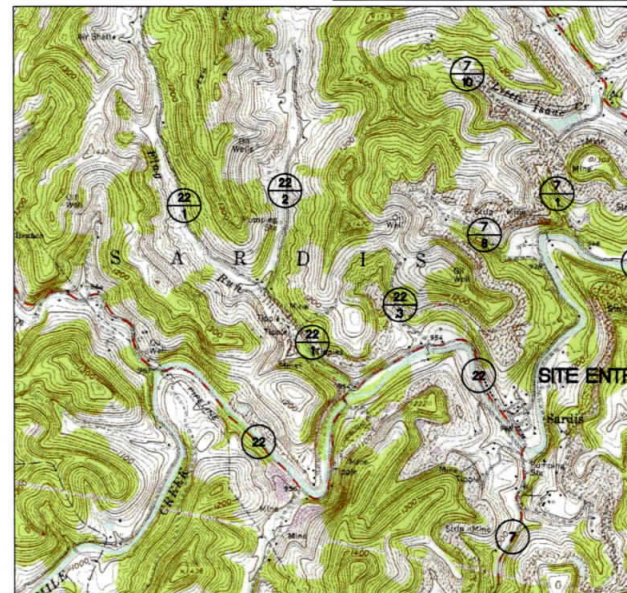
RESTRICTIONS NOTES:

1. THERE ARE NO LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD. THERE ARE STREAM & WETLAND IMPACTS THAT WILL NEED TO BE PERMITTED BY THE APPROPRIATE AGENCIES.
2. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.
3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.
4. THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELL(S) BEING DRILLED.
5. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.
6. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

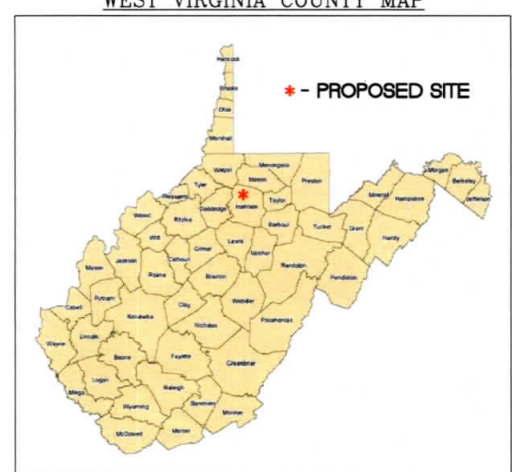
REPRODUCTION NOTE

THESE PLANS WERE CREATED TO BE PLOTTED ON 22"x34" (ANSI D) PAPER. HALF SCALE DRAWINGS ARE ON 11"x17" (ANSI B) PAPER.

THESE PLANS WERE CREATED FOR COLOR PLOTTING AND ANY REPRODUCTIONS IN GRAY SCALE OR COLOR MAY RESULT IN A LOSS OF INFORMATION AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.



WEST VIRGINIA COUNTY MAP



(NOT TO SCALE)

DESIGN CERTIFICATION:

THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAM ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CRS 35-8.

05/30/2025

WELL PAD CONSTRUCTION PLAN, CONTROL PLANS

WV
WATERSHED

D MAP(S)



WEST VIRGINIA STATE PLANE COORDINATE SYSTEM
NORTH ZONE, NAD83
ELEVATION BASED ON NAVD83
ESTABLISHED BY SURVEY GRADE GPS & OPUS
POST-PROCESSING

SHEET INDEX:

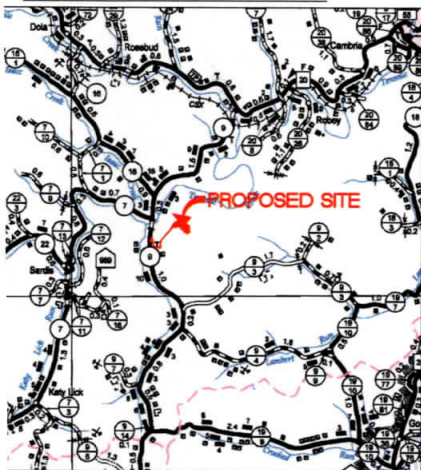
4703306106

- 1 - COVER SHEET
- 2 - CONSTRUCTION AND E&S CONTROLS NOTES
- 3 - LEGEND
- 4 - MATERIAL QUANTITIES
- 5 - STORM DRAINAGE & E&S COMPUTATIONS
- 6 - EXISTING CONDITIONS
- 7 - OVERALL PLAN SHEET INDEX & VOLUMES
- 8 - ACCESS ROAD PLAN
- 9 - WELL PAD PLAN
- 10 - WELL PAD GRADING PLAN
- 11 - ACCESS ROAD PROFILE
- 12 - ACCESS ROAD & STOCKPILE SECTIONS
- 13 - WELL PAD SECTIONS
- 14-22 - CONSTRUCTION DETAILS
- 23 - ACCESS ROAD RECLAMATION PLAN
- 24 - WELL PAD RECLAMATION PLAN

FLANIGAN LIMITS OF DISTURBANCE AREA (AC)	
Total Site	
Access Road "A" (2476')	4.70
Well Pad	7.64
Excess/Topsoil Material Stockpiles	0.29
Total Affected Area	12.63
Total Wooded Acres Disturbed	1.94
Impacts to Robert G. Flanigan & Christine E. ETAL TM 245-24	
Access Road "A" (535')	1.91
Total Affected Area	1.91
Total Wooded Acres Disturbed	0.02
Impacts to Robert G. Flanigan & Christine E. ETAL TM 245-25	
Access Road "A" (384')	0.66
Total Affected Area	0.66
Total Wooded Acres Disturbed	0.10
Impacts to Robert G. Flanigan & Christine E. ETAL TM 245-26	
Access Road "A" (1557')	2.13
Well Pad	7.64
Excess/Topsoil Material Stockpiles	0.29
Total Affected Area	10.06
Total Wooded Acres Disturbed	1.82

Gift Proposal
5-13-2025

WVDOH COUNTY ROAD MAP



Well Name	WV North NAD 27	NAD 27 Lat & Long	NAD 83 UTM (METERS) ZONE 17	NAD 83 Lat & Long
	Permitted Location			
FLANIGAN UNIT 5V	N 309426.42 E 1746523.33	LAT 39-20-45.9134 LONG -80-23-46.6469	N 4355366.99 E 552036.90	LAT 39-20-46.2294 LONG -80-23-45.9719
Proposed Well Pad Elevation	1,154.0			

FLANIGAN EPHEMERAL STREAM IMPACT (LINEAR FEET)						
Stream and Impact Cause	Permanent Impacts		Total Permanent Impact (LF)	Temp. Impacts		Total Temp. Impact (LF)
	Culvert / Fill (LF)	Inlets/Outlets Structures (LF)		Cofferdam/ E&S Controls (LF)	Distance To L.O.D. (LF)	
ASE_Stream07 (Access Road)	0	0	0	0	5	5

FLANIGAN INTERMITTENT STREAM IMPACT (LINEAR FEET)						
Stream and Impact Cause	Permanent Impacts		Total Permanent Impact (LF)	Temp. Impacts		Total Temp. Impact (LF)
	Culvert / Fill (LF)	Inlets/Outlets Structures (LF)		Cofferdam/ E&S Controls (LF)	Distance To L.O.D. (LF)	
ASE_Stream08 (Access Road)	0	0	0	0	189	189

FLANIGAN WETLAND IMPACT (SQUARE FEET)			
Wetland and Impact Cause	Fill (SF)	Total Impact (SF)	Total Impact (AC)
ASE_Wetland04 (Well Pad)	4,032	4,032	0.093
ASE_Wetland08 (Stockpile)	0	0	0.000
ASE_Wetland05 (Well Pad)	548	548	0.013
ASE_Wetland06 (Well Pad)	1,435	1,435	0.033

NAVITUS
ENERGY ENGINEERING
Telephone: (888) 662-4185 | www.NavitusEng.com

REVISION	DATE

Antero
Resources
THIS DOCUMENT
WAS PREPARED FOR:
ANTERO RESOURCES
CORPORATION

COVER SHEET
FLANIGAN
WELL PAD
SARDIS & EAGLE DISTRICTS
HARRISON COUNTY, WEST VIRGINIA

REGISTERED
19578
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
03/26/2025

DATE: 03/26/2025

SCALE: AS SHOWN

SHEET 1 OF 24

05/30/2025

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

CONSTRUCTION NOTES:

1. THE CONTRACTOR IS TO VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND WILL NOTIFY NAVITUS ENGINEERING AT (888) 662-4185 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 HEREIN 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 SPECIFICATIONS. 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 WV DEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.
3. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. ALSO, A REPRESENTATIVE OF THE DEVELOPER 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. CONTRACTOR SHALL ADHERE TO TRAFFIC CONTROL MEASURES AS OUTLINED WITHIN THE APPROVED MM 109 PERMIT.
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 WILL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE EXISTING STREETS AND UTILITIES WHICH OCCURS AS A RESULT OF HIS 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 DEVELOPER WILL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITIES WHICH IS REQUIRED AS A RESULT OF HIS PROJECT. THE RELOCATION SHOULD BE DONE PRIOR TO CONSTRUCTION.
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 FACILITY.
15. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE SITE IN ACCORDANCE WITH THE DESIGN PLANS AND CONSTRUCTION DOCUMENTS AND THE SCOPE OF WORK SHALL CONFORM WITH THE GRADES, BERMS, DEPTHS, DIMENSIONS, ETC. SHOWN HEREON.
16. 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 CFR 1910.146, SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
17. CONSTRUCTION ACTIVITIES SHALL BE RESTRICTED TO THE AREAS SHOWN ON THE PLANS WITHIN THE LIMITS OF DISTURBANCE, UNLESS OTHERWISE AUTHORIZED BY ANTERO RESOURCES CORPORATION. MODIFICATION PLAN MUST BE SUBMITTED TO THE WVDEP FOR ANY ACTIVITIES PERFORMED OUTSIDE OF THE LIMITS OF DISTURBANCE.
18. 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. RESETTling OF MARKERS SHALL BE PERFORMED BY A PROFESSIONAL SURVEYOR AS APPROVED BY ANTERO RESOURCES CORPORATION.
19. THE CONTRACTOR SHALL MAINTAIN ADEQUATE CLEARANCE FROM ALL ELECTRIC LINES, IF ANY, IN ACCORDANCE WITH NATIONAL ELECTRICAL SAFETY CODE.
20. THE CONTRACTOR SHALL MINIMIZE ALL CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE MAXIMUM EXTENT POSSIBLE. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STATE OF THE CONSTRUCTION SEQUENCE.
21. ANY DIGITAL FILES PROVIDED TO THE CONTRACTOR BY NAVITUS ENGINEERING, INC. ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONSTRUCTION OF THE SITE SHALL MEET ALL DESIGN PARAMETERS OF THE WVDEP APPROVED NAVITUS ENGINEERING, INC. DESIGN PLANS. NAVITUS ENGINEERING, INC. WILL NOT BE HELD LIABLE FOR THE CONTRACTOR USING THE DIGITAL FILES TO WAIVER FROM THE APPROVED DESIGN PLANS.
22. 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. TEMPORARY STABILIZATION SHALL BE APPLIED AS NECESSARY.
23. 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.

EROSION AND SEDIMENT CONTROL NARRATIVE:

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A GAS WELL DRILLING PAD TO AID IN THE DEVELOPMENT OF INDIVIDUAL GAS WELLS. THE ACCESS ROAD ENTRANCE TO THE PROPOSED SITE IS LOCATED ON THE EAST SIDE OF CO. RT. 9, 0.21 MILES SOUTH OF THE INTERSECTION OF CO. RT. 9 & CO. RT. 7 IN SARDIS & EAGLE DISTRICT, HARRISON COUNTY, WEST VIRGINIA. THE TOTAL APPROXIMATE LAND DISTURBANCE ASSOCIATED WITH THIS PROJECT IS 12.63 ACRES.

EXISTING SITE CONDITIONS: THE EXISTING SITE IS APPROXIMATELY 15.1% WOODED. THE TOPOGRAPHY RANGES FROM MODERATE TO STEEP TERRAIN (2% TO 80% SLOPES). PRESENT ON SITE ARE ACCESS ROADS, OVERHEAD UTILITIES, EXISTING STRUCTURES, EXISTING GAS WELLS, AND GASLINES ASSOCIATED WITH THE EXISTING GAS WELL. STREAM(S) & WETLAND(S) ARE LOCATED ONSITE. THE SITE IS LOCATED ON A RIDGE AND DRAINS TO OUTLET TENMILE CREEK WATERSHED. NO EROSION WAS NOTICED ON SITE.

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 CRITICAL EROSION AREAS. THESE AREAS 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 THE SITE. ADDITIONALLY, 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 EROSION 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 PENNSYLVANIA SOIL & ROCK, INC. ON _____, 2025 - _____, 2025. THE REPORT PREPARED BY PENNSYLVANIA SOIL & ROCK, INC. DATED _____, 2025, 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 REPORT BY PENNSYLVANIA SOIL & ROCK, INC. FOR ADDITIONAL INFORMATION, AS NEEDED.

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 AND 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.

STRUCTURAL PRACTICES:

1. INSTALL ORANGE SAFETY FENCE TO ENSURE NO DISTURBANCE TO THE DELINEATED AREA(S).
2. INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
3. INSTALL COMPOST FILTER SOCKS AND/OR SILT FENCE 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 E&S CONTROLS.
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 RUNOFF 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 CONTRASTOR PHASING OR OTHER UNFORESEEN CONDITIONS. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE BMP'S TO MINIMIZE 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 FILTERING DEVICE LOCATED BELOW THE DISTURBED AREA. AT NO TIME WILL UNFILTERED SEDIMENT LADEN 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 (0.5) INCHES OR MORE IN A TWENTY-FOUR (24) HOUR PERIOD. ONCE CONSTRUCTION ACTIVITIES HAVE CONCLUDED, THE SITE SHALL BE INSPECTED EVERY TWO (2) WEEKS 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. SEEDING AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND OF GRASS IS MAINTAINED. ALL AREAS SHALL BE FERTILIZED AND RESEED 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.

SEDIMENT 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 SEDIMENT BE WASHED, SHOVELED OR SWEEPED INTO ANY ROADSIDE DITCH, CULVERT OR SURFACE WATER.

ANY DISTURBED AREAS ALONG THE ACCESS ROAD SHALL BE STABILIZED AS CONSTRUCTION PROCEEDS, PRIOR TO CONTINUING FURTHER ACCESS ROAD CONSTRUCTION, WITH EITHER ROCK STABILIZATION OR SEEDING AND MULCHING METHODS.

SUPER SILT FENCE CAN BE USED IN PLACE OF ANY COMPOST FILTER SOCK.

NOTE: THE WV DEP RETAINS THE RIGHT TO ADD AND/OR MODIFY THESE EROSION AND SEDIMENT CONTROL MEASURES DURING THE CONSTRUCTION PROCESS, WITHIN REASON, TO ENSURE ADEQUATE PROTECTION TO THE PUBLIC AND THE ENVIRONMENT.

SEEDING (SOIL STABILIZATION):

1. CONTRACTOR SHALL APPLY SEED AND STABILIZATION IN ACCORDANCE WITH THE WV 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 ($\geq 3H:1V$), SEED MIXTURES SHOULD BE SELECTED THAT ARE APPROPRIATE FOR STEEP SLOPES.

DUST CONTROL:

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.

*Copy
Proposed
5-13-2025*

05/30/2025

CONTROL NOTES

CONSTRUCTION SEQUENCE:

DEVELOPMENT OF THIS SITE SHALL BE CONSISTENT WITH THE FOLLOWING GENERAL SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT, MAINTAIN, AND OPERATE ALL EROSION AND SEDIMENT CONTROL MEASURES TO EFFECTIVELY MITIGATE THE HAZARD GENERATED EROSION AND SEDIMENTATION TO ACCEPTABLE LEVELS. MINOR DEVIATIONS FROM SEQUENCE SHALL BE EXECUTED BY THE PROJECT'S SUPERINTENDENT AS NEEDED TO MAINTAIN ANY POTENTIAL EROSION CONDITION THAT MAY ARISE FOR THE DURATION OF THE PROJECT. THE WV DEP OFFICE OF OIL AND GAS SHALL BE NOTIFIED OF ANY AND ALL SUCH DEVIATIONS FROM THE APPROVED PLANS.

THE LIMITS OF CONSTRUCTION AND MARK/FLAG ALL IDENTIFIED WETLANDS, STREAMS, DITCHES, AND OTHER AREAS OF CONCERN FOR CONSTRUCTION ACTIVITIES. INSTALL SIGNS TO MAINTAIN THE AREAS AND ORANGE SAFETY FENCE TO IDENTIFY IMPORTANT PROJECT FEATURES SUCH AS APPROVED ACCESS ROADS, NO REFUELING ZONES, WETLANDS/STREAM CROSSINGS, ETC.

PRE-CONSTRUCTION CONFERENCE WITH THE CONTRACTOR AND THE APPROPRIATE EROSION CONTROL DISTRICT SUPERVISOR 48 HOURS PRIOR TO BEGINNING WORK TO REVIEW THE CONSTRUCTION DRAWINGS AND PROVIDE ANY REQUESTED GUIDANCE.

CONSTRUCT THE ROCK CONSTRUCTION ENTRANCE. ALL VEHICLES ENTERING AND EXITING THE SITE SHALL DO SO VIA THE ROCK CONSTRUCTION ENTRANCE.

INSTALL ALL BMP'S AS SOON AS CLEARING AND GRUBBING OPERATIONS ALLOW. ONCE COMPLETED, THE AREA ENCOMPASSING THE BMP'S OUTSIDE OF THE GRADING LIMITS SHALL BE MULCHED AND MULCHED IMMEDIATELY.

INSTALLABLE, CONVEY UPSLOPE DRAINAGE AROUND THE ACCESS ROAD, WELL PAD, AND WATER CONTAINMENT PAD AREAS BY CONSTRUCTING ALL DIVERSION BERM(S) AND/OR COMPOST DIVERSION ROCK DIVERSION(S) AS SHOWN ON THE PLANS.

CLEAR AND GRUB THE SITE. ALL WOODY MATERIAL, BRUSH, TREES, STUMPS, LARGE ROOTS, LIMBS, AND DEBRIS SHALL BE CLEARED FROM THE SITE AREA AND KEPT TO THE MINIMUM NECESSARY FOR PROPER CONSTRUCTION, INCLUDING THE INSTALLATION OF NECESSARY EROSION CONTROLS. TREES, BRUSH, AND STUMPS SHALL BE CUT AND/OR GRUBBED AND REMOVED (AS PER WV FOREST FIRE LAWS), REMOVED FROM SITE, OR DISPOSED OF BY OTHER MEANS APPROVED BY WV DEP.

INSTALLABLE, INSTALL ALL WETLAND OR STREAM CROSSINGS AS SHOWN ON THE PLANS.

STRIP THE TOPSOIL FROM THE ACCESS ROAD. TOPSOIL STRIPPING SHALL BE KEPT TO A MINIMUM NECESSARY TO CONSTRUCT ACCESS ROAD. PRIOR TO PLACING ANY FILL, THE EXPOSED SUBGRADE SHALL BE COMPACTED AND PROOF ROLLED TO PRODUCE A STABLE AND UNYIELDING 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.

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 OUTLINED IN THE GEOTECHNICAL REPORT. FILL SHALL BE COMPACTED BY A VIBRATING SHEEPSFOOT ROLLER TO 95% PER THE STANDARD PROCTOR TEST (ASTM-D698). MOISTURE CONTENT WILL BE CONTROLLED IN ACCORDANCE WITH THE STANDARD PROCTOR TEST (ASTM-D698) RESULTS. IT IS ALSO RECOMMENDED THAT EACH LIFT BE PROOF ROLLED WITH A LOADED HAUL TRUCK WHERE PRACTICABLE. DITCH RELIEF CULVERTS SHALL BE INSTALLED AT A GRADE OF 1-8% TO MAINTAIN OUTLET VELOCITIES TO THE EXTENT POSSIBLE. INSTALL OUTLET PROTECTION ONCE RELIEF CULVERTS ARE INSTALLED, AS SHOWN ON PLANS. STABILIZE THE ROAD WITH GEOTEXTILE FABRIC & STONE AND SIDE SLOPES AS SPECIFIED WITH PERMANENT SEEDING. EXCESS MATERIAL SHALL BE STOCKPILED (IF NECESSARY) IN AREAS SHOWN IN THE PLANS AND IMMEDIATELY STABILIZED. TOPSOIL SHALL BE STRIPPED FROM ALL STOCKPILE AREAS PRIOR TO CONSTRUCTION OF STOCKPILES. AFTER STOCKPILES ARE CONSTRUCTED, TOPSOIL IS REAPPLIED AT A DEPTH OF 2"-4". SLOPES SHALL BE TRACKED BY RUNNING TRACKED ROLLERS UP AND DOWN THE SLOPE, LEAVING TREAD MARKS PARALLEL TO THE CONTOUR. DITCH LINES SHALL BE CLEANED PRIOR TO INSTALLATION OF LINED PROTECTION.

IT IS RECOMMENDED THAT THE CONTRACTOR PRIORITIZE COMPLETING SITE ENTRANCE AND LEASE ROAD.

STRIP THE TOPSOIL FROM THE WELL PAD AND WATER CONTAINMENT PAD. TOPSOIL STRIPPING SHALL BE KEPT TO A MINIMUM NECESSARY TO CONSTRUCT WELL PAD AND WATER CONTAINMENT PAD. PRIOR TO PLACING ANY FILL, THE EXPOSED SUBGRADE SHALL BE COMPACTED AND PROOF ROLLED TO PRODUCE A STABLE AND UNYIELDING 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.

CONSTRUCT THE WELL PAD AND WATER CONTAINMENT PAD AREAS AS SHOWN ON THE PLANS. INSTALL PAD SUMPS (WITH 4" PVC DRAIN PIPE AND OUTLET PROTECTION) AND CONTAINMENT LINED SYSTEM. IMMEDIATELY STABILIZE THE OUTER AREAS OF THE WELL PAD AND WATER CONTAINMENT PAD. THE WELL PAD AND WATER CONTAINMENT PAD AREAS SHALL BE MULCHED WITH GEOTEXTILE FABRIC & STONE AND THE SIDE SLOPES WITH SEED AND MULCH. INSTALL ALL STRAW WATTLES AS SHOWN ON PLANS. APPLY SEED AND MULCH TO ALL DISTURBED AREAS. THIS SHALL INCLUDE ALL AREAS THAT WILL NOT BE SUBJECT TO REGULAR EROSION CONTROL (TO BE STABILIZED WITH STONE), OR ANY DISTURBED AREA THAT WILL NOT BE STABILIZED BEFORE SITE RECLAMATION BEGINS.

CONSTRUCTION SITE SHOULD BE STABILIZED AS SOON AS POSSIBLE AFTER COMPLETION. IMPLEMENTATION OF FINAL STABILIZATION MUST BE INITIATED NO LATER THAN 7 DAYS AFTER FINISHING FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOIL-DISTURBING ACTIVITIES ARE COMPLETED, AND THAT EITHER A PERMANENT VEGETATIVE COVER WITH A DENSITY OF 90% OR GREATER HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY COVER SUCH AS PAVEMENT OR BUILDINGS. IT SHOULD BE NOTED THAT THE 70% PERCENT REFERS TO THE TOTAL AREA VEGETATED AND NOT JUST A PERCENT OF THE DISTURBED AREA.

RESUME WELL DRILLING ACTIVITY.

ALL BMP'S MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL ALL AREAS WITHIN THE LIMIT OF CONSTRUCTION ARE COMPLETE AND PERMANENTLY STABILIZED. MAINTENANCE MUST INCLUDE TREATMENT OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RUNOFF EVENT IN ACCORDANCE WITH 5 OF 0.5" IN A TWENTY-FOUR (24) HOUR PERIOD.

PERMANENT SEDIMENT CONTROL MEASURES CAN BE REMOVED AFTER THE SITE IS PERMANENTLY STABILIZED AND APPROVAL IS RECEIVED FROM THE WVDEP.

AREAS DISTURBED BY REMOVAL OF CONTROLS SHALL BE REPAIRED, STABILIZED, AND PERMANENTLY SEEDDED.

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 PEOPLE, 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.

- ALL FILL AREAS SHOULD BE CLEARED OF TREES, STUMPS, AND ANY VEGETATION AND STRIPPED OF TOPSOIL/ORGANIC SOILS PRIOR TO THE START OF FILL PLACEMENT.
- ANY GROUNDWATER ENCOUNTERED DURING CONSTRUCTION SHALL BE DRAINED TO THE OUTSIDE/DOWNSTREAM TOE OF THE SLOPE. 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.
- 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, ML, AND CL GROUPS.
- GENERALLY, UNSATISFACTORY MATERIALS INCLUDE MATERIALS CLASSIFIED IN ASTM D-2487 AS PT, CH, MH, OL, OH, AND ANY SOIL TOO WET TO FACILITATE COMPACTION. CH AND MH SOILS MAY BE USED SUBJECT TO APPROVAL OF THE ENGINEER.
- ALL FILL AREAS SHALL BE "KEYED IN" AND COMPACTED IN HORIZONTAL LIFTS WITH A MAXIMUM LOOSE LIFT THICKNESS OF 12" AND MAXIMUM PARTICLE SIZE AS OUTLINED IN THE GEOTECHNICAL REPORT. ALL FILL SHALL BE COMPACTED BY A VIBRATING SHEEPSFOOT ROLLER TO 95% PER THE STANDARD PROCTOR TEST (ASTM-D698). MOISTURE CONTENT WILL BE CONTROLLED IN ACCORDANCE WITH THE STANDARD PROCTOR TEST (ASTM-D698) RESULTS.
- ROCK LIFTS ARE NOT PROPOSED FOR THE CONSTRUCTION OF THIS SITE. HOWEVER, LARGER ROCK PARTICLES OR BOULDERS THAT ARE ENCOUNTERED DURING CONSTRUCTION NEED TO BE BROKEN DOWN TO A MANAGEABLE SIZE (MAXIMUM 3'x3'x1' 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 GEOTECHNICAL REPORT.
- 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 THE OPTIMUM MOISTURE LIMITS.
- ALL EXPOSED AREAS, NOT COVERED BY COMPACTED GRAVEL OR RIP-RAP SHALL BE LIMED, FERTILIZED, SEEDDED 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.
- IF STANDING WATER IS PRESENT ON SITE, CONTRACTOR TO CORRECT DRAINAGE ISSUE BY DIRECTING WATER TO PROPER EAS CONTROLS OR OUTLET WITH POSITIVE DRAINAGE. IF NECESSARY, CONTACT ENGINEER FOR GUIDANCE IN CORRECTING DRAINAGE ISSUES.
- 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 5 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.
- 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 LINING.
- 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 EROSION FROM OCCURRING.
- 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 DETAIL ON THESE PLANS. ALL OUTLET DRAINS ARE TO BE CLEARLY VISIBLE AND MARKED WITH YELLOW T-POSTS.
- ALL SLOPES SHALL BE TRACKED IN PER THE DETAILS ON THESE PLANS. CONTRACTOR SHALL REPEAT THIS METHOD ANY TIME AN AREA HAS BEEN DISTURBED PRIOR TO THAT AREA BEING STABILIZED.
- 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 EAS TASKS. ANY EROSION CONTROL MAINTENANCE THAT IS DEEMED TO BE AN EMERGENCY SHALL BE PERFORMED IMMEDIATELY UPON THE CLIENT, ENGINEER, OR STATE'S REQUEST.
- ALL LANDOWNER ACCESS ROADS 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 CONTRACTOR SHALL PROVIDE AN EQUIVALENT DETOUR ROUTE TO THE SATISFACTION OF THE LANDOWNER OR WELL OWNER.
- 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 SYSTEM. ANY EXCESS EROSION OR SLOPE FAILURES DUE TO THE WATER INFILTRATION IN THE SUMP AREA SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 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.

SITE CLEANUP & RECYCLE PROGRAM:

- GARBAGE, FUELS OR ANY SUBSTANCE HARMFUL TO HUMAN, AQUATIC OR FISH LIFE, WILL BE PREVENTED FROM ENTERING SPRINGS, STREAMS, PONDS, LAKES, WETLANDS OR ANY WATER COURSE OR WATER BODY.
- OILS, FUELS, LUBRICANTS AND COOLANTS WILL BE PLACED IN SUITABLE CONTAINERS AND DISPOSED PROPERLY.
- ALL TRASH AND GARBAGE WILL BE COLLECTED AND DISPOSED PROPERLY.
- ALL SEDIMENT REMOVED FROM SEDIMENT CAPTURING DEVICES SHALL BE PLACED ON THE TOPSOIL STOCKPILE, THEN SEEDDED AND MULCHED, AS NECESSARY. ALTERNATIVELY, THE REMOVED SEDIMENT CAN BE TRANSPORTED TO A SITE WITH AN APPROVED PERMIT.
- ALL POLLUTION AND EMERGENCY SPILLS SHALL BE IMMEDIATELY REPORTED TO ANTERO RESOURCES CORPORATION AND THE WVDEP OFFICE OF OIL AND GAS. (EMERGENCY #1-800-642-3074)

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ENERGY ENGINEERING

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DATE



THIS DOCUMENT
WAS PREPARED FOR:
ANTERO RESOURCES
CORPORATION

CONSTRUCTION AND E&S CONTROL NOTES

FLANIGAN

WELL PAD

SARDIS & EAGLE DISTRICTS
HARRISON COUNTY, WEST VIRGINIA



DATE: 03/26/2025

SCALE: N/A

SHEET 2 OF 24

05/30/2025

OVERALL PLAN SHEET INDEX & VOLUMES

TM 225-74.3
THORNHILL JAMES L

TM 245-11
ASHCRAFT WILLIAM N
& JOHN RUSSELL
ASHCRAFT

TM 245-12
ASHCRAFT WILLIAM N
& JOHN R

SHEET 8

TM 245-23
CUNNINGHAM PATRICK
H 2015 REVOCABLE
TRUST

TM 245-24
FLANIGAN ROBERT G. &
CHRISTINE E. ETAL
(1.91 DISTURBED ACRES)

TM 245-22
CUNNINGHAM PATRICK
H 2015 REVOCABLE
TRUST

TM 245-25
FLANIGAN ROBERT G. &
CHRISTINE E. ETAL
(0.66 DISTURBED ACRES)

05/30/2025

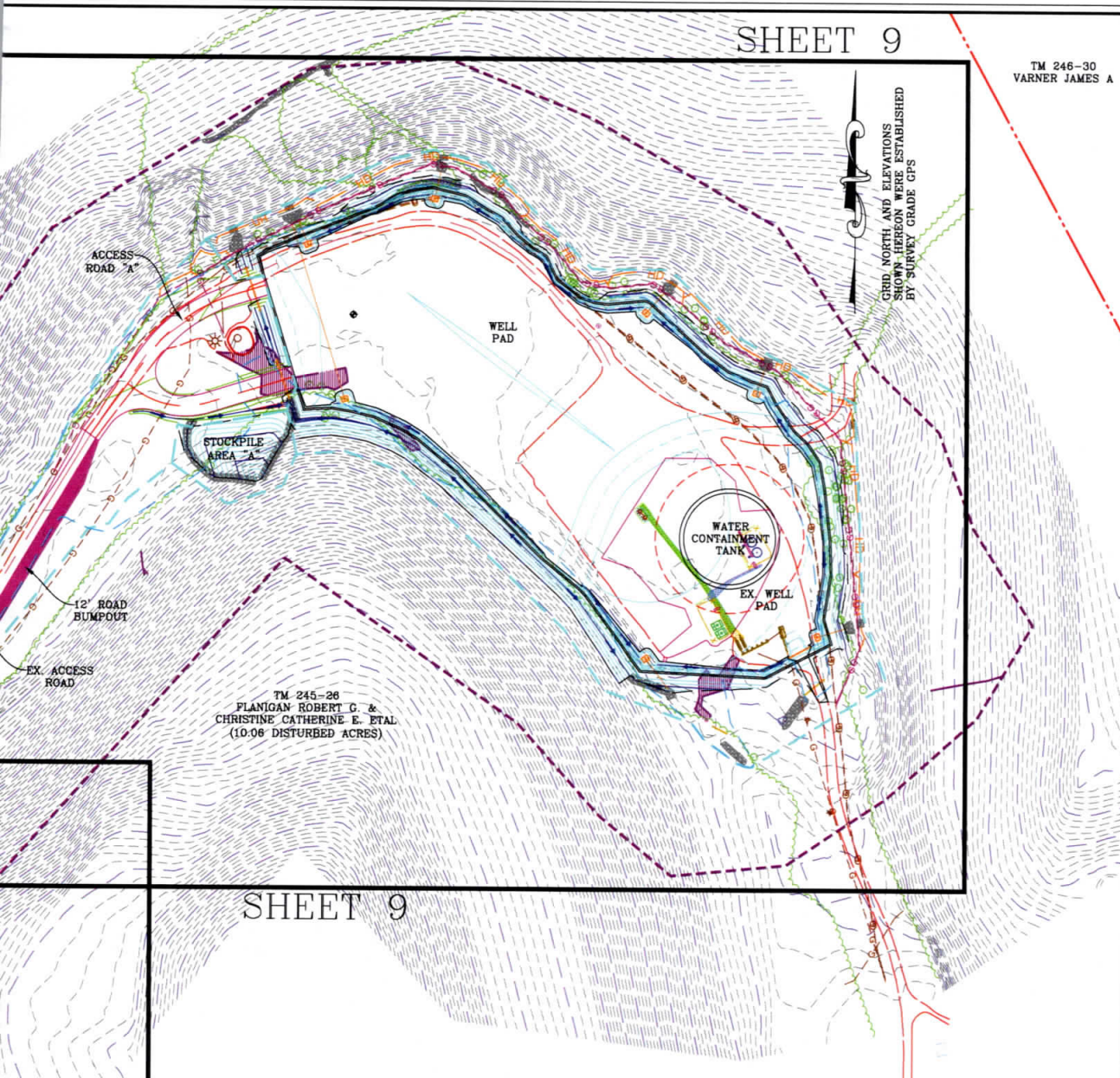
SHEET 9

TM 246-30
VARNER JAMES A

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TM 245-26
FLANIGAN ROBERT G. &
CHRISTINE CATHERINE E. ETAL
(10.06 DISTURBED ACRES)

SHEET 9

*July Project
5-13-2025*

REVISION

DATE

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WAS PREPARED FOR:
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OVERALL PLAN SHEET INDEX & VOLUMES

FLANIGAN

WELL PAD

SARDIS & EAGLE DISTRICTS
HARRISON COUNTY, WEST VIRGINIA

MATERIAL STOCKPILES		
Name	Excess	Topsoil
A	540	790
TOTAL	540	790

FLANIGAN WELL PAD						
Description	Cut (CY)	Fill (CY)	Spoil (CY)	Borrow (CY)	Max. Slope (%)	Length of Slope (FT)
Access Road "A"	355.2	478.8	0.0	123.6	2.3	140.0
Well Pad	6,871.1	6,582.2	288.9	0.0	n/a	n/a
Stripped Topsoil (3")	715.9	0.0	715.9	0.0	n/a	n/a
Material Stockpiles	0.0	1,330.0	0.0	1,330.0	n/a	n/a
Totals	7,942.2	8,391.0	1,004.8	1,453.6	n/a	n/a
Total Spoil (CY) =			-448.8			

NOTES:

- THE EARTHWORK QUANTITIES PROVIDED ARE AN ESTIMATE FOR CONSIDERATION. THE QUANTITIES SHOWN ARE CALCULATED USING A 1:1 CUT/SWELL & FILL SHRINK FACTOR. THE EXCESS MATERIAL & TOPSOIL STOCKPILES ARE SIZED TO ACCOMMODATE A CUT/SWELL FACTOR OF 1.1:1. THIS ADDITIONAL MATERIAL IS REFLECTED IN THE TOTAL SPOIL SHOWN ON THE MATERIAL QUANTITIES TABLE. IF THE CALCULATED SWELL IS LESS THAN 1.1:1, THE STOCKPILES SIZES CAN BE REDUCED DURING CONSTRUCTION. THE QUANTITIES SHOWN MAY BE GREATER OR LESSER THAN ACTUALLY EXCAVATED. THE ENGINEER IS NOT RESPONSIBLE FOR VARIANCES FROM THE ESTIMATED QUANTITIES AND DOES NOT CERTIFY THEIR ACCURACY.
- THE TOE BENCH DEPTHS AND QUANTITIES PROVIDED IN THE TABLE ARE AN ESTIMATE, CALCULATED FROM THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT PREPARED BY PENNSYLVANIA SOIL & ROCK, INC. SEE PAGES GE5--GE5-- & GEOTECHNICAL INVESTIGATION REPORT PROVIDED BY PENNSYLVANIA SOIL & ROCK, INC. FOR TOE BENCH DETAILS, VOLUMES, AND SPECIFICATIONS.



SHEET 8



DATE: 03/26/2025

SCALE: 1" = 100'

SHEET 7 OF 21

05/30/2025