

Commercial/Industrial Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit has been issued to ANTERO , and is for the approved commercial and/or industrial development project associated with this permit that impacts the FEMA-designated floodplain and/or floodway of Doddridge County, WV, pursuant to the rules and regulations established by all applicable Federal, State and local laws and ordinances, including the Doddridge County Floodplain Ordinance. This permit must be posted at the site of work as to be clearly visible, and must remain posted during entirety of development.

Permit: #14-212

Date Approved: 05/22/2014

Expires: 05/22/2015

Issued to: ANTERO RESOURCES

**POC: SHAYE MARSHALL
303-357-6412**

**Company Address: 1615 WYNKOOP ST
DENVER CO. 80202**

Project Address: WOLFE PEN RUN

Firm: 54017C0235C

Lat/Long: 80.672175W, 39.241838N

Purpose of development: WELL PAD/WATER CONTAINMENT PAD

Issued by: Edwin L. "Bo" Wriston, Doddridge County FPM (or designee)

Date: 05/22/2014

For additional information regarding this permit, please contact
Doddridge County Floodplain Manager at 304.873.2631, or via email at
doddridgecountyfpm@gmail.com
118 East Court Street; West Union, WV 26456

14-212



Antero Resources
1625 17th Street
Denver, Colorado 80202
Office 303.357.7310
Fax 303.357.7315

April 30, 2014

Doddridge County Commission
Attn: Bo Wriston - Doddridge County Floodplain Manager
118 East Court Street, Room 102
West Union, WV 26456

Mr. Wriston:

Per the Doddridge County Ordinance, Antero Resources Corporation (Antero) would like to submit Doddridge County floodplain determination for our Wolf Pen well pad location which is **NOT** located in the floodplain as shown on the enclosed design page (signed and stamped by a Professional Engineer) and plotted on the WV flood tool map.

If you have any questions please feel free to contact me at (303) 357-6412.

Sincerely,

Shaye Marshall
Permit Representative
Antero Resources Corporation

Enclosures

FILED
2014 MAY - 8 AM 8: 09
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

DODDRIDGE COUNTY FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

SECTION 1: GENERAL PROVISIONS (APPLICANT TO READ AND SIGN)

1. No work may start until a permit is issued.
2. The permit may be revoked if any false statements are made herein.
3. If revoked, all work must cease until permit is re-issued.
4. Development shall not be used or occupied until a Certificate of Compliance is issued.
5. The permit will expire if no work is commenced within six months of issuance.
6. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal requirements.
7. Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her representative to make inspections to verify compliance.
8. **I, THE APPLICANT CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.**

APPLICANT'S SIGNATURE

RK

DATE

4/30/14

SECTION 2: PROPOSE DEVELOPMENT (TO BE COMPLETED BY APPLICANT).

IF THE APPLICANT IS NOT A NATURAL PERSON, THE NAME, ADDRESS, AND TELEPHONE NUMBER OF A NATURAL PERSON WHO SHALL BE APPOINTED BY THE APPLICANT TO RECEIVE NOTICE PURSUANT TO ANY PROVISION OF THE CURRENT DODDRIDGE COUNTY FLOODPLAIN ORDINANCE.

APPLICANT'S NAME:

Randy Kloberdanz

ADDRESS: 1625 17th Street, Denver, CO 80202

TELEPHONE NUMBER: Contact Shauna DeMattee: 303-357-6820

BUILDER'S NAME: Antero Resources Corporation

ADDRESS: 1625 17th Street, Denver, CO 80202

TELEPHONE NUMBER: (303) 357-7310

ENGINEER'S NAME: Navitus Engineering Inc.

ADDRESS: 151 Windy Hill Lane, Winchester, Virginia 22602

TELEPHONE NUMBER: 888-662-4185

PROJECT LOCATION:

NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see attached Exhibit A

ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see attached Exhibit A

DISTRICT: New Milton District

DATE/FROM WHOM PROPERTY

PURCHASED: N/A

LAND BOOK DESCRIPTION:

DEED BOOK REFERENCE: Please see attached Exhibit A

TAX MAP REFERENCE: Please see attached Exhibit A

EXISTING BUILDINGS/USES OF PROPERTY:

NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY

ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY

To avoid delay in processing the application, please provide enough information to easily identify the project location.

DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

ACTIVITY

STRUCTURAL TYPE

- | | | | |
|-------------------------------------|-------------------------|--------------------------|----------------------------------|
| <input checked="" type="checkbox"/> | New Structure | <input type="checkbox"/> | Residential (1 – 4 Family) |
| <input type="checkbox"/> | Addition | <input type="checkbox"/> | Residential (more than 4 Family) |
| <input type="checkbox"/> | Alteration | <input type="checkbox"/> | Non-residential (floodproofing) |
| <input type="checkbox"/> | Relocation | <input type="checkbox"/> | Combined Use (res. & com.) |
| <input type="checkbox"/> | Demolition | <input type="checkbox"/> | Replacement |
| <input type="checkbox"/> | Manufactured/Mobil Home | | |

B. OTHER DEVELOPMENT ACTIVITIES:

- | | | | | | | | |
|-------------------------------------|---|--------------------------|--------|-------------------------------------|----------|--------------------------|------------|
| <input type="checkbox"/> | Fill | <input type="checkbox"/> | Mining | <input checked="" type="checkbox"/> | Drilling | <input type="checkbox"/> | Pipelining |
| <input type="checkbox"/> | Grading | | | | | | |
| <input type="checkbox"/> | Excavation (except for STRUCTURAL DEVELOPMENT checked above) | | | | | | |
| <input type="checkbox"/> | Watercourse Altercation (including dredging and channel modification) | | | | | | |
| <input type="checkbox"/> | Drainage Improvements (including culvert work) | | | | | | |
| <input checked="" type="checkbox"/> | Road, Street, or Bridge Construction | | | | | | |
| <input type="checkbox"/> | Subdivision (including new expansion) | | | | | | |
| <input type="checkbox"/> | Individual Water or Sewer System | | | | | | |
| <input type="checkbox"/> | Other (please specify) | | | | | | |
-

C. STANDARD SITE PLAN OR SKETCH

- 1. SUBMIT ALL STANDARD SITE PLANS, IF ANY HAVE BEEN PREPARED.**
- 2. IF STANDARD SITE PLANS HAVE NOT BEEN PREPARED:**
SKETCH ON A SEPARATE 8 ½ X 11 INCH SHEET OF PAPER THE SHAPE AND LOCATION OF THE LOT. SHOW THE LOCATION OF THE INTENDED CONSTRUCTION OR LAND USE INDICATING BUILDING SETBACKS, SIZE & HEIGHT. IDENTIFY EXISTING BUILDINGS, STRUCTURES OR LAND USES ON THE PROPERTY.
- 3. SIGN AND DATE THE SKETCH.**

ACTUAL TOTAL CONSTRUCTION COSTS OF THE COMPLETE DEVELOPMENT IRRESPECTIVE OF WHETHER ALL OR ANY PART OF THE SUBJECT PROPOSED CONSTRUCTION PROJECT IS WITHIN THE FLOODPLAIN \$ ^{N/A - Location is not within} _{-the floodplain}

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

1. NAME AND ADDRESS OF ALL OWNERS OF SURFACE TRACTS ADJACENT TO THE AREA OF THE SURFACE TRACT (UP & DOWN STREAM) UPON WHICH THE PROPOSED ACTIVITY WILL OCCUR AND ALL OTHER SURFACE OWNERS UP & DOWN STREAM) WHO OWN PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY (IF ONE HAS BEEN COMPLETED).

NAME: N/A-No properties sharing an immediate and common boundary up or down stream due to the location not being in floodplain

NAME: _____
ADDRESS: _____

NAME: _____
ADDRESS: _____

NAME: _____
ADDRESS: _____

1. NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON ANY ADJACENT PROPERTY AT THE TIME THE FLOODPLAIN PERMIT APPLICATION IS FILED AND THE NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN ANY HOME ON ANY PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY.

NAME: N/A
ADDRESS: _____

NAME: _____
ADDRESS: _____

NAME: _____
ADDRESS: _____

NAME: _____
ADDRESS: _____

E. CONFIRMATION FORM


THE APPLICANT ACKNOWLEDGES, AGREES, AND CONFIRMS THAT HE/IT WILL PAY WITHIN 30 DAYS OF RECEIPT OF INVOICE BY THE COUNTY FOR ALL EXPENSES RELATIVE TO THE PERMIT APPLICATION PROCESS GREATER THAN THE REQUIRED DEPOSIT FOR EXPENSES INCLUDING:

- (A) PERSONAL SERVICE OF PROCESS BY THE DODDRIDGE COUNTY SHERIFF AT THE RATES PERMITTED BY LAW FOR SUCH SERVICE.
- (B) SERVICE BY CERTIFIED MAIL RETURN RECEIPT REQUESTED.
- (C) PUBLICATION.

Wolf Pen Pad Doddridge County Floodplain Permit – Exhibit A

Surface Owner Name	Address	Deed/Page	Tax Map/ Parcel
Alvin Ross & Samme M. Hart	Rt. 1 Box 7, New Milton, WV 26411	40/294	5/7
Samme M. Hart	927 Wolfe Pen Rd., New Milton, WV 26411	40/294	5/7

- (D) COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT.
- (E) CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY FLOODPLAIN ADMINISTRATOR/MANAGER OR FLOODPLAIN APPEALS BOARD FOR REVIEW OF MATERIALS AND/OR TESTIMONY REGARDING THE EFFICACY OF GRANTING OR DENYING THE APPLICANT'S FLOODPLAIN PERMIT.

NAME (PRINT): Randy Kloberdanz
 SIGNATURE:  DATE: 4/30/14

After completing SECTION 2, APPLICANT should submit form to Floodplain Administrator/Manager or his/her representative for review.

SECTION 3: FLOODPLAIN DETERMINATION (to be completed by Floodplain Administrator/Manager or his/her representative)

THE PROPOSED DEVELOPMENT:

THE PROPOSED DEVELOPMENT IS LOCATED ON:

FIRM Panel: _____
 Dated: _____

Is **NOT** located in a Specific Flood Hazard Area (Notify applicant that the application review is complete and **NO FLOODPLAIN DEVELOPMENT PERMIT IS REQUIRED**).

Is located in Special Flood Hazard Area.
 FIRM zone designation _____
 100-Year flood elevation is: _____ NGVD (MSL)

Unavailable

The proposed development is located in a floodway.
 FBFM Panel No. _____ Dated _____

See section 4 for additional instructions.

SIGNED _____

DATE _____

SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Floodplain Administrator/Manager or his/her representative)

The applicant must submit the documents checked below before the application can be processed.

- A plan showing the location of all existing structures, water bodies, adjacent roads, lot dimensions and proposed development.
- Development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, storage tanks, proposed elevation of lowest floor, (including basement or crawl space), types of water resistant materials used below the first floor, details of flood proffing of utilities located below the first floor and details of enclosures below the first floor. Also _____

- Subdivision or other development plans (If the subdivision or development exceeds 50 lots or 5 acres, whichever is the lesser, the applicant must provide 100-year flood elevations if they are not otherwise available).
- Plans showing the extent of watercourse relocation and/or landform alterations.
- Top of new fill elevation _____ Ft. NGVD (MSL).
For floodproofing structures applicant must attach certification from registered engineer or architect.
- Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood. A copy of all data and calculations supporting this finding must also be submitted.
- Manufactured homes located in a floodplain area must have a West Virginia Contractor's License and a Manufactured Home Installation License as required by the Federal Emergency Management Agency (FEMA).

Other:

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Administrator/Manager or his/her representative)

I have determined that the proposed activity **(type is or is not)** in conformance with provisions of the Floodplain Ordinance adopted by the County Commission of Doddridge County on May 21, 2013. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED _____ DATE _____

If the Floodplain Administrator/Manager found that the above was not in conformance with the provisions of the Doddridge County Floodplain Ordinance and/or denied that application, the applicant may complete an appealing process below.

APPEALS: Appealed to the County Commission of Doddridge County? Yes No
Hearing Date: _____
County Commission Decision - Approved Yes No

CONDITIONS: _____

SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Compliance is issued).

The following information must be provided for project structures. This section must be completed by a registered professional engineer or a licensed land surveyor (or attach a certification to this application).

COMPLETE 1 OR 2 BELOW:

- 1 Actual (As-Built) Elevation of the top of the lowest floor (including basement or crawl space is _____ FT. NGVD (MSL)
- 2 Actual (As Built) elevation of floodproofing is _____ FT. NGVD (MSL)

Note: Any work performed prior to submittal of the above information is at risk of the applicant.

SECTION 7: COMPLIANCE ACTION (To be completed by the Floodplain Administrator/Manager or his/her representative).

The Floodplain Administrator/Manager or his/her representative will complete this section as applicable based on inspection of the project to ensure compliance with the Doddridge County Floodplain Ordinance.

INSPECTIONS:

DATE: _____ BY: _____
DEFICIENCIES ? Y/N

COMMENTS

SECTION 8: CERTIFICATE OF COMPLIANCE (To be completed by Floodplain Administrator/Manager or his/her representative).

Certificate of Compliance issued: DATE: _____ BY: _____

**CERTIFICATE OF COMPLIANCE
FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREA
(OWNER MUST RETAIN)**

PERMIT NUMBER: _____

PERMIT DATE: _____

PURPOSE –

CONSTRUCTION LOCATION: _____

OWNER'S ADDRESS: _____

**THE FOLLOWING MUST BE COMPLETED BY THE FLOODPLAIN
ADMINISTRATOR/MANAGER OR HIS/HER AGENT.**

**COMPLIANCE IS HEREBY CERTIFIED WITH THE REQUIREMENT OF THE
FLOODPLAIN ORDINANCE ADOPTED BY THE COUNTY COMMISSION OF
DODDRIDGE COUNTY ON MAY 21, 2013.**

SIGNED _____ **DATE** _____



View

Layers

Search

Tools

Public Expert Risk MAP

Flood Reference Basemap

Input your address



Wolf Pen Pad

Flood Hazard Area: Selected site is NOT WITHIN any identified flood hazard area. Unmapped flood hazard areas may be present. [more info](#)

Watershed (HUC8): Little Muskingum-Middle Island (503)

FEMA Issued Flood Map: 54017C0235C

Contacts: [Doddridge County](#)

CRS Information: N/A

Location (long, lat): (80.672175 W, 39.241838 N)

Location (UTM 17N): (528290, 4343665)

Elevation (Ground): About 1193 feet

Parcel Information: No parcel data [Disclaimer](#)

Center of Pad:
80.672174 W,
39.241838 N

Access Rd
Entrance:
80.677145 W,
39.239277 N

Scale - 1:9,028
000 ft
x:-80.666692, y:39.244057

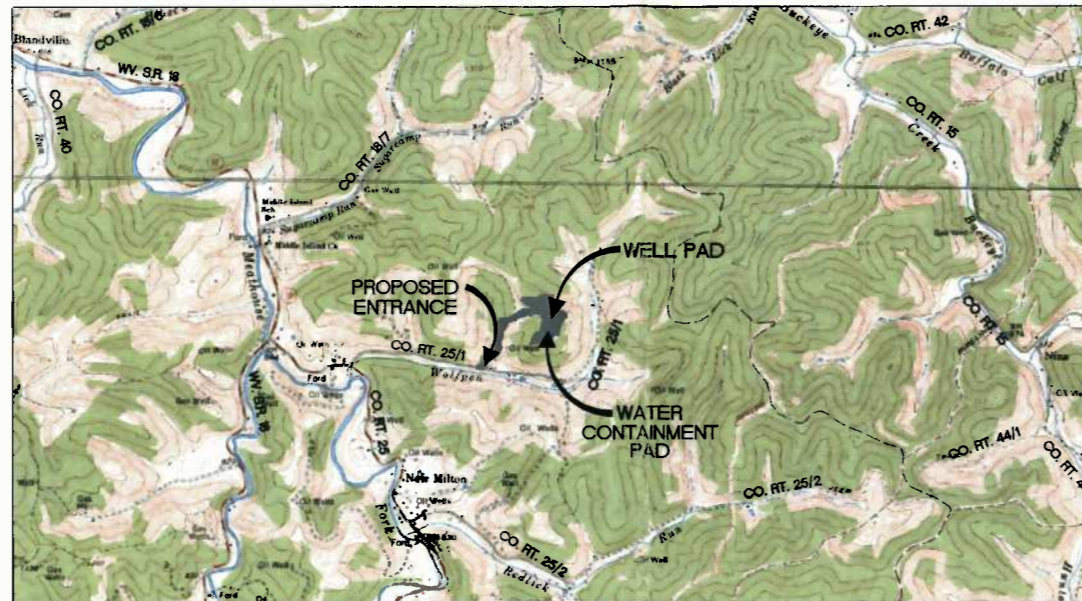
@ESRI, Street Map



WOLF PEN WELL PAD & WATER CONTAINMENT PAD SITE DESIGN & CONSTRUCTION PLAN, EROSION & SEDIMENT CONTROL PLANS

NEW MILTON DISTRICT, DODDRIDGE COUNTY, WEST VIRGINIA
MEATHOUSE FORK & WOLF PEN RUN WATERSHEDS

USGS 7.5 NEW MILTON & SMITHBURG QUAD MAPS



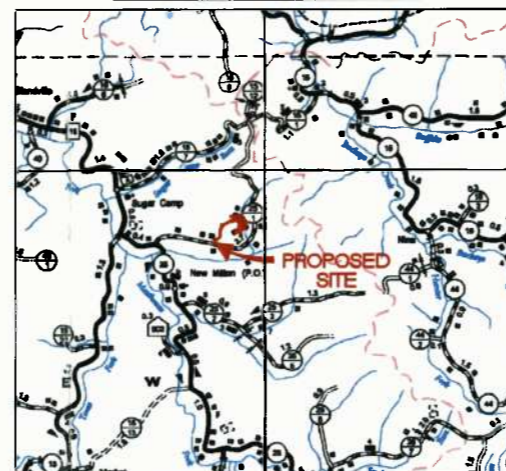
2000 0 2000
SCALE: 1" = 2000'

WEST VIRGINIA COUNTY MAP



(NOT TO SCALE)

WVDOH COUNTY ROAD MAP



5000 0 5000
SCALE: 1" = 5000'

DESIGN CERTIFICATION

THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS 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-B.

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!!

LOCATION COORDINATES

ACCESS ROAD ENTRANCE
LATITUDE: 39.239277 LONGITUDE: -80.877145 (NAD 83)
N 4343379.64 E 527862.17 (UTM ZONE 17 METERS)

CENTER OF TANK 1
LATITUDE: 39.241224 LONGITUDE: -80.872316 (NAD 83)
N 434597.23 E 528278.16 (UTM ZONE 17 METERS)

CENTER OF TANK 2
LATITUDE: 39.240917 LONGITUDE: -80.872481 (NAD 83)
N 434563.01 E 528264.11 (UTM ZONE 17 METERS)

CENTROID OF PADS
LATITUDE: 39.241838 LONGITUDE: -80.872174 (NAD 83)
N 4343865.37 E 528260.14 (UTM ZONE 17 METERS)

GENERAL DESCRIPTION

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

FLOODPLAIN NOTE

THE PROPOSED SITE IS LOCATED IN FLOODZONE "X" PER FEMA FLOOD MAP #54017C0235C.

MISS UTILITY STATEMENT

ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN; TICKET #1310223219. IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE 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

WETLAND DELINEATIONS WERE PERFORMED MARCH & SEPTEMBER, 2013 & FEBRUARY, 2014 BY GAI CONSULTANTS INC. 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 FEBRUARY 28, 2014 RESOURCE LOCATION MAP WAS PREPARED BY GAI CONSULTANTS INC. 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 NOTE

A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY PENNSYLVANIA SOIL & ROCK, INC. ON MARCH 12-18, 2014. THE REPORT PREPARED BY PENNSYLVANIA SOIL & ROCK, INC. DATED APRIL 2, 2014, REFLECTS THE RESULTS OF THE SUBSURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS REPORT WAS 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

OPERATOR:
ANTERO RESOURCES CORPORATION
535 WHITE OAKS BLVD
BRIDGEPORT, WV 26330
PHONE: (304) 842-4100
FAX: (304) 842-4112

ELI WAGONER - ENVIRONMENTAL ENGINEER
OFFICE: (304) 842-4068 CELL: (304) 478-9770

JOHN KAWCAK - OPERATIONS SUPERINTENDENT
CELL: (817) 368-1553

AARON KUNZLER - CONSTRUCTION SUPERVISOR
CELL: (405) 227-8344

ANTHONY SMITH - FIELD ENGINEER
OFFICE: (304) 842-4208 CELL: (304) 673-6196

CHARLES E. COMPTON, III - SURVEYING
COORDINATOR
CELL: (304) 719-8449

JACK BELL - LAND AGENT
CELL: (304) 376-9682

ENGINEER/SURVEYOR:
NAVITUS ENGINEERING, INC.
CYRUS S. KUMP, PE - PROJECT
MANAGER/ENGINEER
OFFICE: (888) 862-4185 CELL: (540) 886-8747

ENVIRONMENTAL:
ALLSTAR ECOLOGY, LLC
RYAN L. WARD - ENVIRONMENTAL SCIENTIST
OFFICE: (866) 213-2666 CELL: (304) 892-7477

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

RESTRICTIONS NOTES:

- THERE ARE NO PERENNIAL STREAMS, LAKES, OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD. THERE ARE WETLAND AND STREAM IMPACTS THAT WILL NEED TO BE PERMITTED BY THE APPROPRIATE AGENCIES.
- THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.
- THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.
- THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELL(S) BEING DRILLED.
- THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 825 FEET OF THE CENTER OF THE WELL PAD.
- THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 825 FEET OF THE CENTER OF THE WELL PAD.

SHEET INDEX

- 01 - COVER SHEET
- 02 - CONSTRUCTION AND E&S CONTROL NOTES
- 03 - MATERIAL QUANTITIES
- 04 - EXISTING CONDITIONS
- 05 - OVERALL PLAN SHEET INDEX & VOLUMES
- 06 - ACCESS ROAD PLAN
- 07 - WELL PAD & WATER CONTAINMENT PAD PLAN
- 08 - ACCESS ROAD PROFILES
- 09 - ACCESS ROAD SECTIONS
- 10-11 - WELL PAD & WATER CONTAINMENT PAD SECTIONS
- 12 - STREAM CROSSING "A" DETAILS
- 13-18 - CONSTRUCTION DETAILS
- 19 - ACCESS ROAD RECLAMATION PLAN
- 20 - WELL PAD & WATER CONTAINMENT PAD RECLAMATION PLAN
- 21 - FIRM EXHIBIT
- GE500-GE505 - GEOTECHNICAL DETAILS

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

WOLF PEN LIMITS OF DISTURBANCE AREA (AC)	
Total Site	
Access Road "A" (1,985')	6.35
Staging Area "A"	0.69
Staging Area "B"	0.47
Well Pad	4.02
Water Containment Pad	2.15
Production Equipment Pad	1.48
Excess/Topsoil Material Stockpiles	4.56
Total Affected Area	19.72
Total Wooded Acres Disturbed	16.02
Impacts to Joyce L. Nicholson, Joseph L. Schulte, & Connie Jo Weekley TM 8-3	
Access Road "A" (1,729')	5.55
Staging Area "A"	0.69
Staging Area "B"	0.02
Water Containment Pad	0.23
Excess/Topsoil Material Stockpiles	1.64
Total Affected Area	8.13
Total Wooded Acres Disturbed	6.57
Impacts to Alvin D. Ross, Et Al TM 5-7	
Access Road "A" (256')	0.80
Well Pad	4.02
Water Containment Pad	1.92
Production Equipment Pad	1.48
Excess/Topsoil Material Stockpiles	2.92
Total Affected Area	11.14
Total Wooded Acres Disturbed	9.45
Impacts to Roger A. McClain, II & John H. McClain TM 8-10	
Staging Area "B"	0.45
Total Affected Area	0.45
Total Wooded Acres Disturbed	0.00

WOLF PEN INTERMITTENT STREAM IMPACT (LINEAR FEET)			
Stream and Impact Cause	Culvert/Fill (LF)	Inlets/Outlets Structures (LF)	Total Impact (LF)
Stream 1 (Road "A")	86	12	98

WOLF PEN WETLAND IMPACT (SQUARE FEET)			
Wetland and Impact Cause	Fill (SF)	Total Impact (SF)	Total Impact (AC)
Wetland 1 (Water Cont. Pad)	1,130	1,130	0.03

Proposed Well Name	WV North NAD 27	WV North NAD 83	UTM (METERS) Zone 17	NAD 83 Lat & Long
Blade Unit 2H	N 272359.09 E 1668013.09	N 272395.18 E 1636572.10	N 4343675.24 E 528308.22	LAT 39-14-30.9352 LONG -80-40-19.1554
Blade Unit 1H	N 272349.26 E 1668011.29	N 272385.34 E 1636570.29	N 4343672.23 E 528305.72	LAT 39-14-30.8377 LONG -80-40-19.1768
Sling Unit 2H	N 272339.42 E 1668009.48	N 272375.51 E 1636568.48	N 4343688.22 E 528305.22	LAT 39-14-30.7403 LONG -80-40-19.1681
Sling Unit 1H	N 272329.59 E 1668007.68	N 272365.67 E 1636566.68	N 4343666.22 E 528304.72	LAT 39-14-30.6429 LONG -80-40-19.2194
Swanson Unit 3H	N 272319.75 E 1668005.87	N 272355.84 E 1636564.87	N 4343663.21 E 528304.22	LAT 39-14-30.5454 LONG -80-40-19.2407
Swanson Unit 2H	N 272309.91 E 1668004.08	N 272346.00 E 1636563.07	N 4343660.21 E 528303.72	LAT 39-14-30.4480 LONG -80-40-19.2620
Swanson Unit 1H	N 272300.08 E 1668002.26	N 272336.18 E 1636561.26	N 4343657.20 E 528303.22	LAT 39-14-30.3505 LONG -80-40-19.2833
Well Pad Elevation	1,188.0			

NAVITUS
ENERGY ENGINEERING

REVISION	DATE

Antero
THIS DOCUMENT WAS PREPARED FOR:
ANTERO RESOURCES CORPORATION

COVER SHEET
WOLF PEN
WELL PAD & WATER CONTAINMENT PAD
NEW MILTON DISTRICT
DODDRIDGE COUNTY, WEST VIRGINIA



DATE: 04/03/2014
SCALE: AS SHOWN
SHEET 1 OF 21