

# Commercial/Industrial Floodplain Development Permit

## Doddridge County, WV Floodplain Management

This permit has been issued to **Antero Resources**, 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: #15-335 ~ Antero Resources ~  
Balli Pipeline**

**Date Approved: 01/27/2015**

**Expires: N/A**

**Issued to: Antero Resources**

**POC: Rachel Grzybek  
304-842-4008**

**Company Address: 535 White Oaks Blvd  
Bridgeport, WV 26330**

**Project Address: Central District**

**Lat/Long: 39.302017N/80.843378W to 39.295869N/80.846699W**

**Purpose of development: Pipeline project. Project does not impact floodplain.**

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

**Date: 01/27/2015**

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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

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#15-335



Antero Resources  
535 White Oaks Blvd.  
Bridgeport, WV 26330  
Office 304.842.4100  
Fax 304.842.4102

January 16, 2015

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

Mr. Wriston:

Antero Resources Corporation (Antero) would like to submit a Doddridge County Floodplain permit application for our Balli Pipeline. Our project is located in Doddridge County, Central District where the waterline will be begin at the Balli Well Pad at coordinates 39.302017 N, 80.843378 W and will continue to the West Union Lateral at coordinates 39.295869 N, 80.846699 W. Per the FIRM Map #54017C0115C, this location is out of the floodplain.

Attached you will find the following:

- Doddridge County Floodplain Permit Application
- Surface Owner Information
- Location Map
- Design Plans
- FIRM Map
- WV Flood Tool Map

If you have any questions please feel free to contact me at (304) 842-4008.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel Grzybek".

Rachel Grzybek  
Floodplain Engineer  
Antero Resources Appalachian Corporation

Enclosures



**Antero Resources**  
535 White Oaks Blvd.  
Bridgeport, WV 26330  
Office 304.842.4100  
Fax 304.842.4102

January 16, 2015

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Sincerely,

Rachel Grzybek  
Floodplain Engineer  
Antero Resources Appalachian Corporation

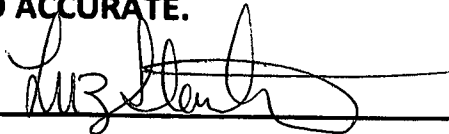
Enclosures

# 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 \_\_\_\_\_



DATE January 16, 2015

## 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: Antero Midstream LLC

ADDRESS: 1615 Wynkoop Street, Denver, CO 80202

TELEPHONE NUMBER: Contact Rachel Grzybek: (304) 842-4008

**BUILDER'S NAME:** Antero Midstream LLC  
**ADDRESS:** 1615 Wynkoop Street, Denver, CO 80202  
**TELEPHONE NUMBER:** (303) 357-7310

**ENGINEER'S NAME:** Antero Midstream LLC  
**ADDRESS:** 1615 Wynkoop Street, Denver, CO 80202  
**TELEPHONE NUMBER:** (303)357-7310

**PROJECT LOCATION:**

**NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT)** \_\_\_\_\_  
Please See Property Owner Table

**ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT)** \_\_\_\_\_  
Please See Property Owner Table

**DISTRICT:** \_\_\_\_\_

**DATE/FROM WHOM PROPERTY**

**PURCHASED:** \_\_\_\_\_

**LAND BOOK DESCRIPTION:** \_\_\_\_\_

**DEED BOOK REFERENCE:** Please See Property Owner Table

**TAX MAP REFERENCE:** Please See Property Owner Table

**EXISTING BUILDINGS/USES OF PROPERTY:** N/A

**NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY** Please See Property Owner Table

**ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY** Please See Property Owner Table

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 type="checkbox"/> | Drilling | <input checked="" 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 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  
**ADDRESS:** \_\_\_\_\_ 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:** \_\_\_\_\_  
**ADDRESS:** \_\_\_\_\_  
 \_\_\_\_\_

**NAME:** \_\_\_\_\_  
**ADDRESS:** \_\_\_\_\_  
 \_\_\_\_\_

**NAME:** \_\_\_\_\_  
**ADDRESS:** \_\_\_\_\_  
 \_\_\_\_\_

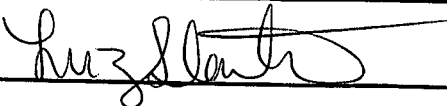
**NAME:** \_\_\_\_\_  
**ADDRESS:** \_\_\_\_\_  
 \_\_\_\_\_

**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.

- (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): Luz Slawter  
 SIGNATURE:  DATE: January 16, 2015

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:

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**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** \_\_\_\_\_


# WV Flood Map



This map is not the official regulatory FIRM or DFIRM. Its purpose is to assist with determining potential flood risk for the selected location.

Map Created on 11/12/2014

 Location of the mouse click

 **Flood Hazard Zone**  
(1% annual chance floodplain)

**User Notes:**  
Balli Pipeline

**Disclaimer:**  
The online map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. To obtain more detailed information in areas where Base Flood Elevations have been determined, users are encouraged to consult the latest Flood Profile data contained in the official flood insurance study. These studies are available online at [www.msc.fema.gov](http://www.msc.fema.gov).

WV Flood Tool is supported by FEMA, WV NFIP Office, and WV GIS Technical Center  
(<http://www.MapWV.gov/flood>)

**Flood Hazard Area:**

**Elevation:** About 1058 feet

**Location (long, lat):** 80.843927 W, 39.298722 N

**Location (UTM 17N):** (513458, 4349939)

**FEMA Issued Flood Map:** 54017C0115C

**Contacts:** Doddridge County

**CRS Information:** N/A

**Parcel Number:**

# WV Flood Map

**Balli Pipeline**

Length: 2,951.16 ft

**End Balli Pipeline at  
West Union Lateral:  
80.846699 W  
39.295869 N**

300 m  
1000 ft

This map is not the official regulatory FIRM or DFIRM. Its purpose is to assist with determining potential flood risk for the selected location.

Map Created on 11/12/2014



Location of the mouse click



**Flood Hazard Zone  
(1% annual chance floodplain)**

### User Notes:

Balli Pipeline

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Elevation: About 1058 feet

Location (long, lat): 80.843927 W, 39.298722 N

Location (UTM 17N): (513458, 4349939)

FEMA Issued Flood Map: 54017C0115C

Contacts: Doddridge County

CRS Information: N/A

Parcel Number:

Legal Advertisement:  
Doddridge County  
Floodplain Permit Application

Please take notice that on the 26<sup>th</sup> day of January, 2015

**Antero Resources**

filed an application for a Floodplain Permit to develop land located at or about:

**Central District**

**39.302017N/80.843378W to 39.295869N/80.846699W**

**Permit #15-335 Balli Pipeline**

(Note: This project is not within the floodplain)

The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. As this project is outside the FEMA identified floodplain of Doddridge County, Doddridge County Floodplain Management has no regulatory authority. Any interested persons who desire to comment shall present the same in writing by **February 23, 2015**, delivered to:

Clerk of the County Court

118 E. Court Street, West Union, WV 26456

Beth A Rogers, Doddridge County Clerk

Edwin L. "Bo" Wriston, Doddridge County Flood Plain Manager

STATE OF WEST VIRGINIA,  
COUNTY OF DODDRIDGE, TO WIT

I, Virginia Nicholson, Editor of THE  
HERALD RECORD, a weekly newspaper  
published regularly, in Doddridge County,  
West Virginia, Do Hereby Certify  
That the Accompanying Legal Notice  
Entitled:

*Floodplain Permit  
Application*  
*# 15-335*

was published in said paper for *2*

successive weeks beginning with the issue  
of *February 7<sup>th</sup>* 2015 and  
ending with the issue of

*February 10<sup>th</sup>* 2015 and

that said notice contains *210*

WORD SPACE at *.115* cents a word

amounts to the sum of \$ *24.15*

FOR FIRST PUBLICATION, SECOND  
PUBLICATION IS 75% OF THE FIRST  
PUBLICATION

\$ *18.13*  
and each publication thereafter

\$ *42.27* TOTAL

EDITOR

*Virginia Nicholson*

SWORN TO AND SUBSCRIBED

BEFORE ME THIS THE *12<sup>th</sup>* DAY  
OF *February* 2015

NOTARY PUBLIC

*Laura J. Stickel*

LEGAL ADVERTISEMENT:

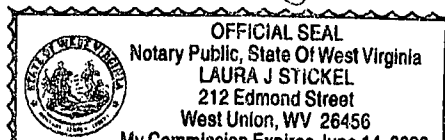
Doddridge County  
Floodplain Permit Application

Please take notice that on the 26th day of January, 2015  
Antero Resources filed an application for a Floodplain  
Permit to develop land located at or about: Central  
District 39.302017N/80.843378W to  
39.295869N/80.846699W Permit #15-335 Balli Pipeline  
(Note: This project is not within the floodplain) The  
Application is on file with the Clerk of the County Court  
and may be inspected or copied during regular business  
hours. As this project is outside the FEMA identified  
floodplain of Doddridge County, Doddridge County  
Floodplain Management has no regulatory authority. Any  
interested persons who desire to comment shall present  
the same in writing by February 23, 2015.

Delivered to the:

Clerk of the County Court  
118 E. Court Street, West Union, WV 26456  
Beth A. Rogers, Doddridge County Clerk  
Edwin L. "Bo" Wriston, Doddridge County Flood Plain  
Manager

2-3-21b





# The Doddridge Independent



## The Doddridge Independent PUBLISHER'S CERTIFICATE

I, Michael D. Zorn, Publisher of The Doddridge Independent, A newspaper of general circulation published in the town of West Union, Doddridge County, West Virginia, do hereby certify that:

**Antero Resources**

filed an application for a Floodplain Permit to develop land located at or about:

**NCentral District**

39.302017N/80.843378W to 39.295869N/80.846699W

Permit #15-335 Balli Pipeline

was published in The Doddridge Independent  
2 times commencing on Friday, February 6, 2015 and  
Ending on Friday, February 13, 2015 at the request of:

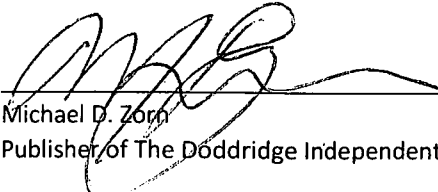
**Edwin Wriston, Doddridge County Floodplain  
Manager & Doddridge County Commission**

Given under my hand this Tuesday, February 17, 2015

The publisher's fee for said publication is:

**\$ 25.27 1st Run/\$ 18.95 Subsequent Runs**

**This Legal Ad Total: \$ 44.22**

  
\_\_\_\_\_  
Michael D. Zorn  
Publisher of The Doddridge Independent

Subscribed to and sworn to before me on  
this date: 2/17/2015

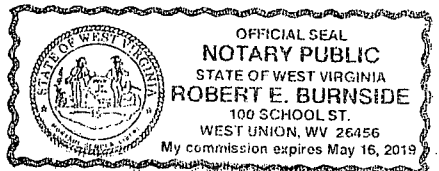
  
\_\_\_\_\_  
Notary Public in and for Doddridge County

My Commission expires on

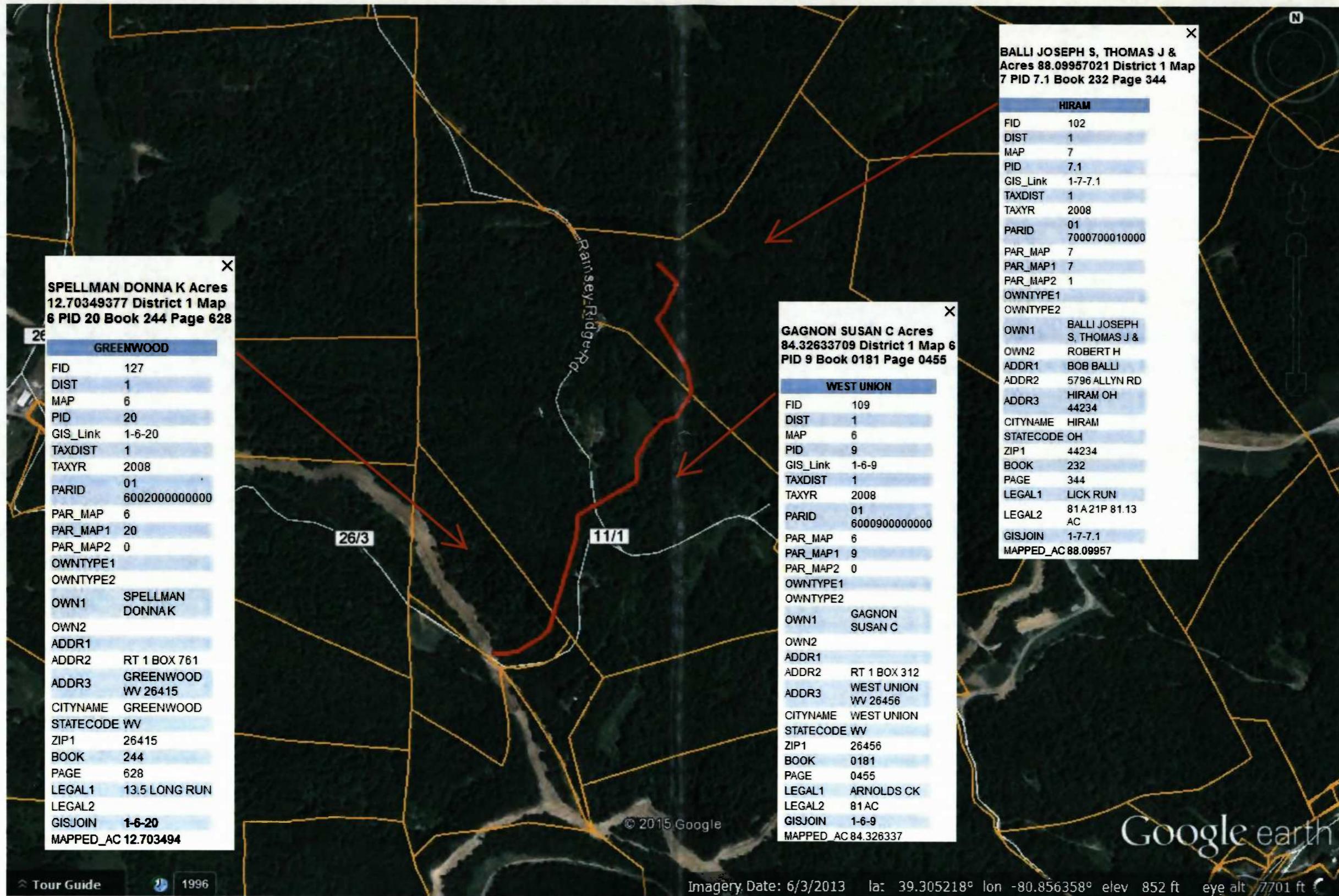
The 16 day of May 2019

Legal Advertisement: 2/6-2/13  
Doddridge County  
Floodplain Permit Application

Please take notice that on the 20th day of January, 2015  
**Antero Resources**  
filed an application for a Floodplain Permit to develop land located at or  
about:  
**NCentral District**  
**39.302017N/80.843378W to 39.295869N/80.846699W**  
**Permit #15-335 Balli Pipeline**  
**(Note: This project is not within the floodplain)**  
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2015, delivered to:  
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118 E. Court Street, West Union, WV 26456  
Beth A. Rogers, Doddridge County Clerk  
Edwin L. 'Bo' Wriston, Doddridge County Flood Plain Manager



Balli Pipeline: Surface Owner Information



**SPELLMAN DONNA K Acres 12.70349377 District 1 Map 6 PID 20 Book 244 Page 628**

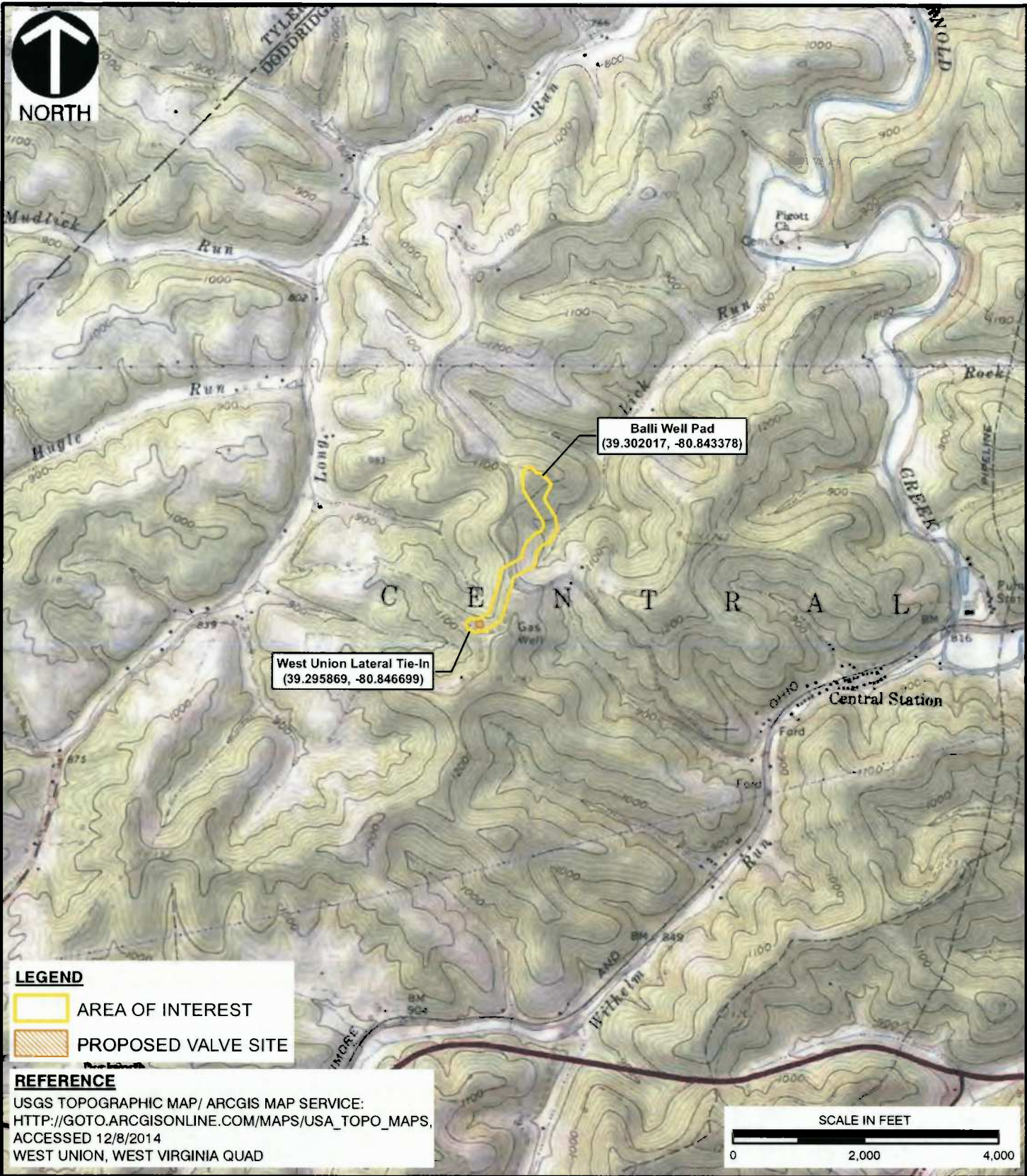
GREENWOOD	
FID	127
DIST	1
MAP	6
PID	20
GIS_Link	1-6-20
TAXDIST	1
TAXYR	2008
PARID	01
PARID	6002000000000
PAR_MAP	6
PAR_MAP1	20
PAR_MAP2	0
OWNTYPE1	
OWNTYPE2	
OWN1	SPELLMAN DONNAK
OWN2	
ADDR1	
ADDR2	RT 1 BOX 761
ADDR3	GREENWOOD WV 26415
CITYNAME	GREENWOOD
STATECODE	WV
ZIP1	26415
BOOK	244
PAGE	628
LEGAL1	13.5 LONG RUN
LEGAL2	
GISJOIN	1-6-20
MAPPED_AC	12.703494

**GAGNON SUSAN C Acres 84.32633709 District 1 Map 6 PID 9 Book 0181 Page 0455**



WEST UNION	
FID	109
DIST	1
MAP	6
PID	9
GIS_Link	1-6-9
TAXDIST	1
TAXYR	2008
PARID	01
PARID	6000900000000
PAR_MAP	6
PAR_MAP1	9
PAR_MAP2	0
OWNTYPE1	
OWNTYPE2	
OWN1	GAGNON SUSAN C
OWN2	
ADDR1	
ADDR2	RT 1 BOX 312
ADDR3	WEST UNION WV 26456
CITYNAME	WEST UNION
STATECODE	WV
ZIP1	26456
BOOK	0181
PAGE	0455
LEGAL1	ARNOLDS CK
LEGAL2	81 AC
GISJOIN	1-6-9
MAPPED_AC	84.326337

**BALLI JOSEPH S, THOMAS J & Acres 88.09957021 District 1 Map 7 PID 7.1 Book 232 Page 344**

HIRAM	
FID	102
DIST	1
MAP	7
PID	7.1
GIS_Link	1-7-7.1
TAXDIST	1
TAXYR	2008
PARID	01
PARID	7000700010000
PAR_MAP	7
PAR_MAP1	7
PAR_MAP2	1
OWNTYPE1	
OWNTYPE2	
OWN1	BALLI JOSEPH S, THOMAS J &
OWN2	ROBERT H
ADDR1	BOB BALLI
ADDR2	5796 ALLYN RD
ADDR3	HIRAM OH 44234
CITYNAME	HIRAM
STATECODE	OH
ZIP1	44234
BOOK	232
PAGE	344
LEGAL1	LICK RUN
LEGAL2	81 A 21P 81.13 AC
GISJOIN	1-7-7.1
MAPPED_AC	88.09957



**LEGEND**

-  AREA OF INTEREST
-  PROPOSED VALVE SITE

**REFERENCE**

USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:  
[HTTP://GOTO.ARCGISONLINE.COM/MAPS/USA\\_TOPO\\_MAPS](http://gto.arcgis.com/maps/usa_topo_maps),  
 ACCESSED 12/8/2014  
 WEST UNION, WEST VIRGINIA QUAD



**Civil & Environmental Consultants, Inc.**

99 Cambridge Place - Bridgeport, WV 26330-2820  
 Ph: 304-933-3119 · Toll: 855-488-9539 · Fax: 304-933-3327  
[www.cecinc.com](http://www.cecinc.com)

ANTERO MIDSTREAM LLC  
 BALLI PIPELINE PROJECT  
 DODDRIDGE COUNTY, WEST VIRGINIA

**SITE LOCATION MAP**

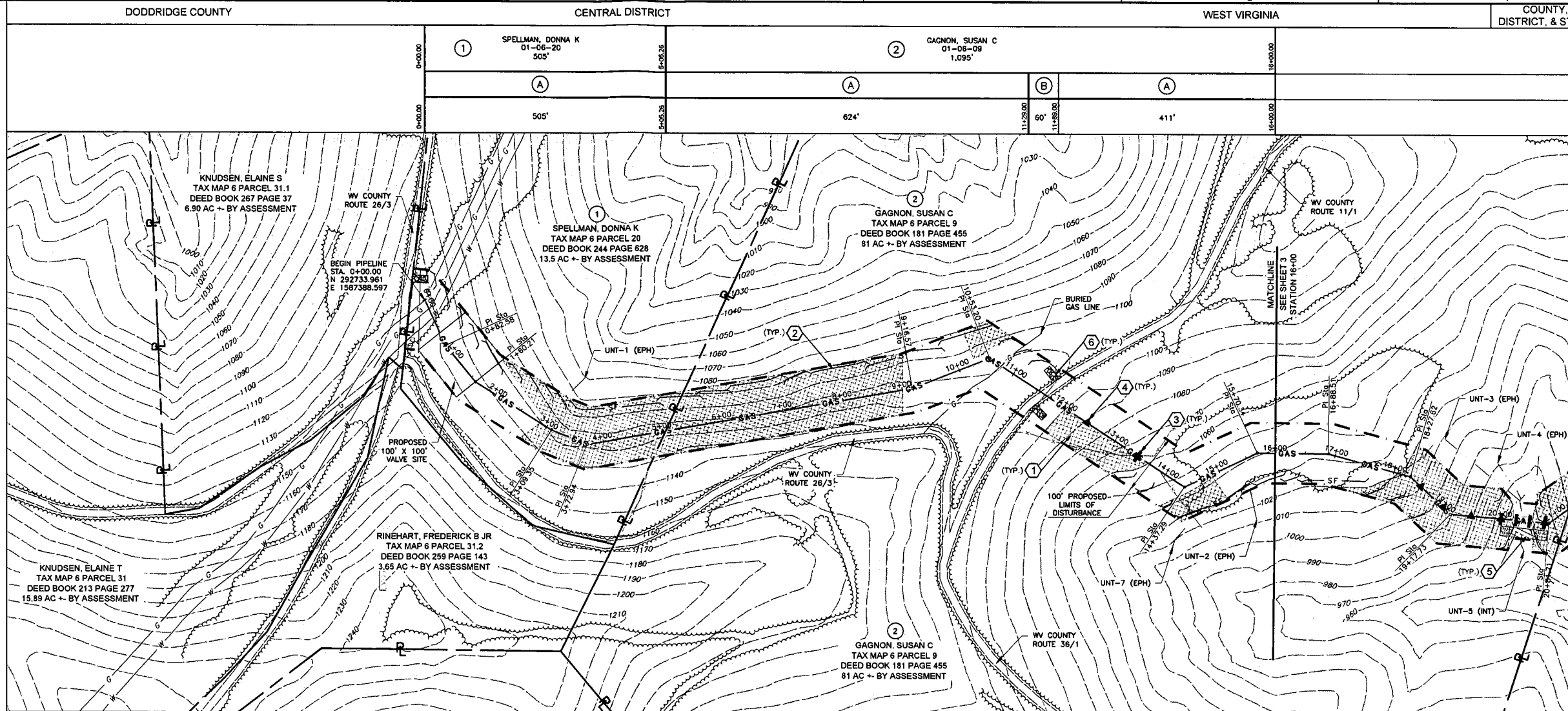
DRAWN BY:	GSK	CHECKED BY:	JDK	APPROVED BY: * Hand signature on file	JHW*	FIGURE NO:	<b>1</b>
DATE:	12/08/2014	SCALE:	1" = 2,000'	PROJECT NO:	143-172.0003		

I:\svr-bridgeport\12014143-172-GIS\Map\Task 0003\Delimitation Report\143172\_0003 FIG1 WDSIR\_SITE.mxd 12/08/2014 12:13 PM (gkuckuck)



**LEGEND**

- 850 --- EXISTING INDEX CONTOUR
- EXISTING VEGETATION
- EXISTING UTILITY POLE
- EXISTING GAS WELL
- EXISTING GAS PIPELINE
- EXISTING FENCE
- EXISTING ROADS (UNPAVED)
- EXISTING ROADS (PAVED)
- EXISTING TAX PARCEL PROPERTY LINE
- EXISTING DELINEATED STREAM
- EXISTING DELINEATED WETLAND
- EXISTING WELL PAD LOD
- 850 --- PROPOSED GRADING (BY OTHERS)
- GAS --- PROPOSED GAS LINE
- PROPOSED ACCESS ROAD
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED WATERBAR
- PROPOSED TRENCH PLUG
- PROPOSED EROSION CONTROL BLANKET
- SF --- PROPOSED SILT-SAVER PRIORITY 2
- SS --- PROPOSED SILT-SAVER PRIORITY 1
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED MOBILE BRIDGE WITH APPROACH

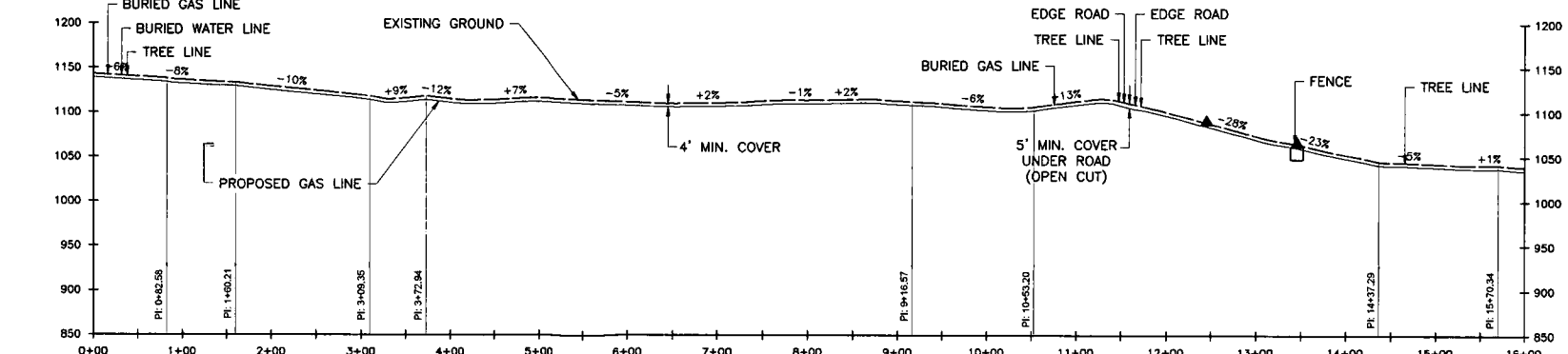
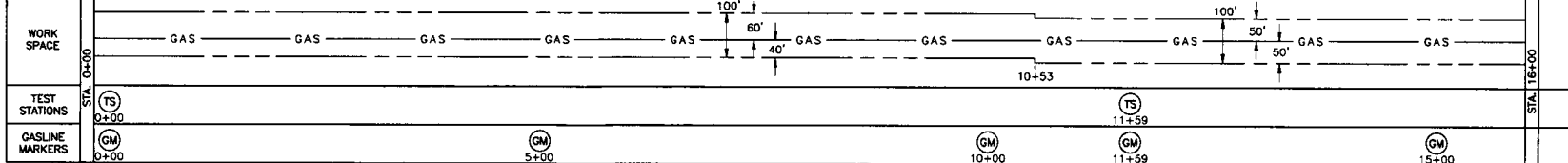


**P.I. TABLE**

STATION	DEFLECTION	NORTHING	EASTING
0+00.00		292733.961	1587388.597
0+82.56	165° 39' 27" L	292730.231	1587471.096
1+60.21	161° 05' 54" L	292748.043	1587547.091
3+09.35	169° 45' 21" L	292822.087	1587675.391
3+72.94	148° 01' 07" L	292863.724	1587723.459
9+16.57	168° 33' 09" L	293383.267	1587883.482
10+53.20	125° 00' 28" R	293519.230	1587898.985
14+37.29	121° 16' 07" L	293707.402	1588231.815
15+70.34	154° 20' 35" R	293840.378	1588238.302
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18+27.62	151° 54' 58" R	294047.377	1588385.342
19+17.73	141° 20' 07" L	294077.060	1588470.420
20+81.71	139° 13' 54" L	294215.971	1588557.585
22+15.78	156° 44' 24" L	294348.509	1588537.383
25+52.13	106° 55' 03" R	294633.979	1588359.490
26+26.33	164° 02' 17" L	294689.839	1588408.315
27+93.60	109° 46' 04" L	294841.201	1588479.521
29+59.79		294958.635	1588361.990

- KEY NOTES**
- FURNISH AND INSTALL EROSION SEDIMENT CONTROL BLANKET PER DETAILS 2 AND 3 ON SHEET 7 (TYPICAL).
  - FURNISH AND INSTALL SILT-SAVER PRIORITY 1 & SILT-SAVER PRIORITY 2 PER DETAIL 4 ON SHEET 7 (TYPICAL).
  - FURNISH AND INSTALL TRENCH PLUG PER DETAIL 5 ON SHEET 8 (TYPICAL).
  - FURNISH AND INSTALL WATERBAR PER DETAIL 6 ON SHEET 8 (TYPICAL).
  - FURNISH AND INSTALL TIMBER MAT BRIDGE PER DETAIL 11 ON SHEET 9 (TYPICAL).
  - FURNISH AND INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL 12 ON SHEET 9 (TYPICAL).

- REFERENCES:**
- EXISTING CONTOURS ARE DERIVED FROM THE WEST VIRGINIA GIS DIGITAL ELEVATION MODELS (USGS 3-METER) DATED 2003 ([http://ftp.wv.gov/wvu.edu/pub/Clearinghouse/Elevation/3MeterDEM\\_SAMB\\_2003\\_utm83/](http://ftp.wv.gov/wvu.edu/pub/Clearinghouse/Elevation/3MeterDEM_SAMB_2003_utm83/)).
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  - BY GRAPHIC PLOTTING ONLY, THIS PIPELINE IS NOT LOCATED IN A FLOODPLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP FOR DODDRIDGE COUNTY, MAP #540170015C, WITH A MAP REVISED DATE OF OCTOBER 04, 2011.
  - USGS 7.5 MIN. TOPOGRAPHIC QUADRANGLE WEST UNION, WV, DATED 2014.
  - WETLAND AND STREAM DELINEATION WAS BASED ON SURVEYS CONDUCTED BY CEC ON OCTOBER 20, 2014. WETLAND AND STREAM DATA WAS COLLECTED BY MAPPING GRADE G.P.S.



**SUMMARY OF MATERIALS**

NO.	DESCRIPTION	QUANTITY
A	16" 0.375 WALL FBE COATED PIPE	2,883 LF
B	16" 0.500 WALL ARO COATED PIPE	123 LF
C	SILT-SAVER PRIORITY 2	2,293 LF
D	SILT-SAVER PRIORITY 1	243 LF
E	WATERBARS	16 EA
F	TRENCH PLUGS	8 EA
G	EROSION CONTROL BLANKET	17,950 SY
H	TIMBER MAT BRIDGE	1 EA
I	STABILIZED CONSTRUCTION ENTRANCE	3 EA
TOTAL		

\*\*\*STATIONING AS SHOWN IS HORIZONTAL\*\*\*

SCALE IN FEET

0 100 200

\*\*\* THIS PLAN HAS BEEN CREATED ON AN ANSI D (22"x34") SHEET. FOR REDUCTIONS, REFER TO GRAPHIC SCALE.\*\*\*

**SEAL**

**DRAFT**

**REVISION RECORD**

NO.	DATE	DESCRIPTION
1	20141209	PERMIT SET

ALIGNMENT SHEET STATIONS 0+00 TO 16+00

**BALLI PIPELINE**

16" GAS LINE  
CENTRAL DISTRICT, DODDRIDGE COUNTY, WV

DATE: DECEMBER 2014 PROJECT NO: 143-172  
SCALE: 1" = 100'  
DRAWN BY: APD  
CHECKED BY: JHL

SHEET 2 OF 9

**Civil & Environmental Consultants, Inc.**  
99 Cambridge Place - Bridgeport, WV 26330  
Ph: 304.933.3119 - Fax: 304.933.3327  
www.cecinc.com

**LINE TABULATION**

BALLI PIPELINE	HORIZONTAL LENGTH	SLOPE LENGTH	DIAMETER GAS
SHEET 2	1,600'	1,612'	16"
SHEET 3	1,360'	1,394'	16"
TOTAL	2,960'	3,006'	16"

**LEGEND**

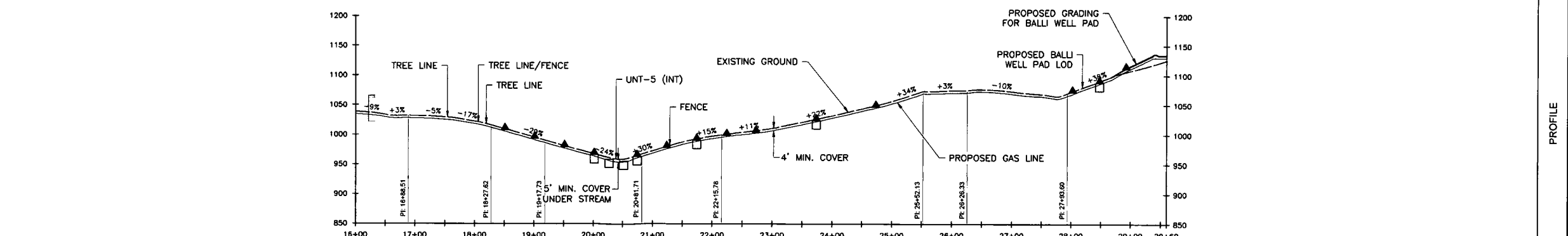
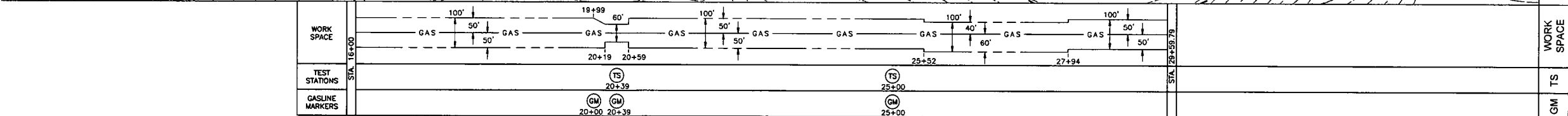
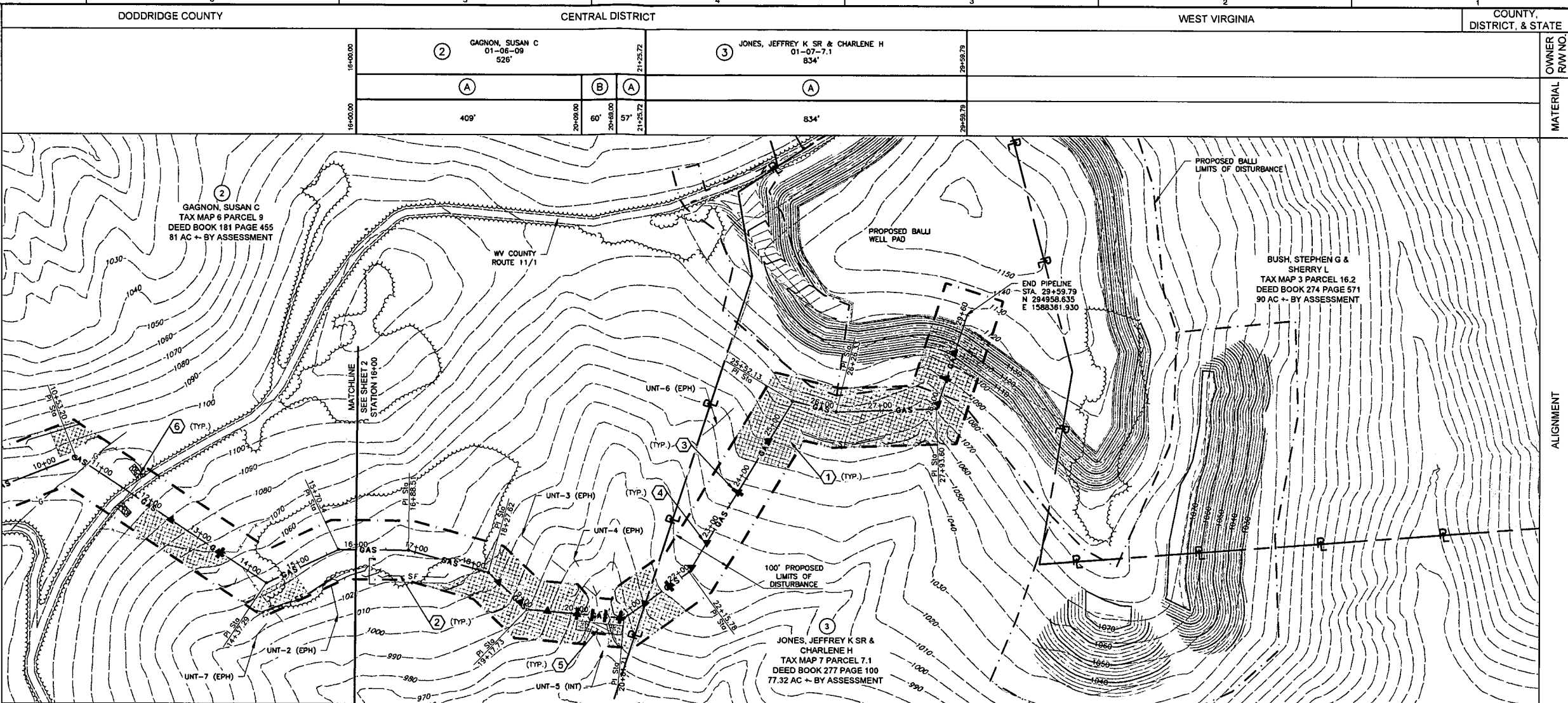
- 850 --- EXISTING INDEX CONTOUR
- EXISTING VEGETATION
- EXISTING UTILITY POLE
- EXISTING GAS WELL
- EXISTING GAS PIPELINE
- EXISTING FENCE
- EXISTING ROADS (UNPAVED)
- EXISTING ROADS (PAVED)
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- PROPOSED EROSION CONTROL BLANKET
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- PROPOSED MOBILE BRIDGE WITH APPROACH

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- KEY NOTES**
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- REFERENCES:**
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  4. USGS 7.5 MIN. TOPOGRAPHIC QUADRANGLE WEST UNION, WV, DATED 2014.
  5. WETLAND AND STREAM DELINEATION WAS BASED ON SURVEYS CONDUCTED BY CEC ON OCTOBER 20, 2014. WETLAND AND STREAM DATA WAS COLLECTED BY MAPPING GRADE G.P.S.

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 99 Cambridge Place - Bridgeport, WV 26330  
 Ph: 304.933.3119 - Fax: 304.933.3327  
 www.cecinc.com



SUMMARY OF MATERIALS		
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A	16" 0.375 WALL FBE COATED PIPE	2,883 LF
B	16" 0.500 WALL ARO COATED PIPE	123 LF
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F	TRENCH PLUGS	8 EA
G	EROSION CONTROL BLANKET	17,950 SY
H	TIMBER MAT BRIDGE	1 EA
I	STABILIZED CONSTRUCTION ENTRANCE	3 EA

\*\*\*STATIONING AS SHOWN IS HORIZONTAL.\*\*\*

**NORTH**

SCALE IN FEET

0 100 200

\*\* THIS PLAN HAS BEEN CREATED ON AN ANSI D (22"x34") SHEET. FOR REDUCTIONS, REFER TO GRAPHIC SCALE. \*\*

SEAL		REVISION RECORD	
<b>DRAFT</b>		NO.	DATE
			20141209
		DESCRIPTION	
		PERMIT SET	

ALIGNMENT SHEET STATIONS 16+00 TO 29+59.79

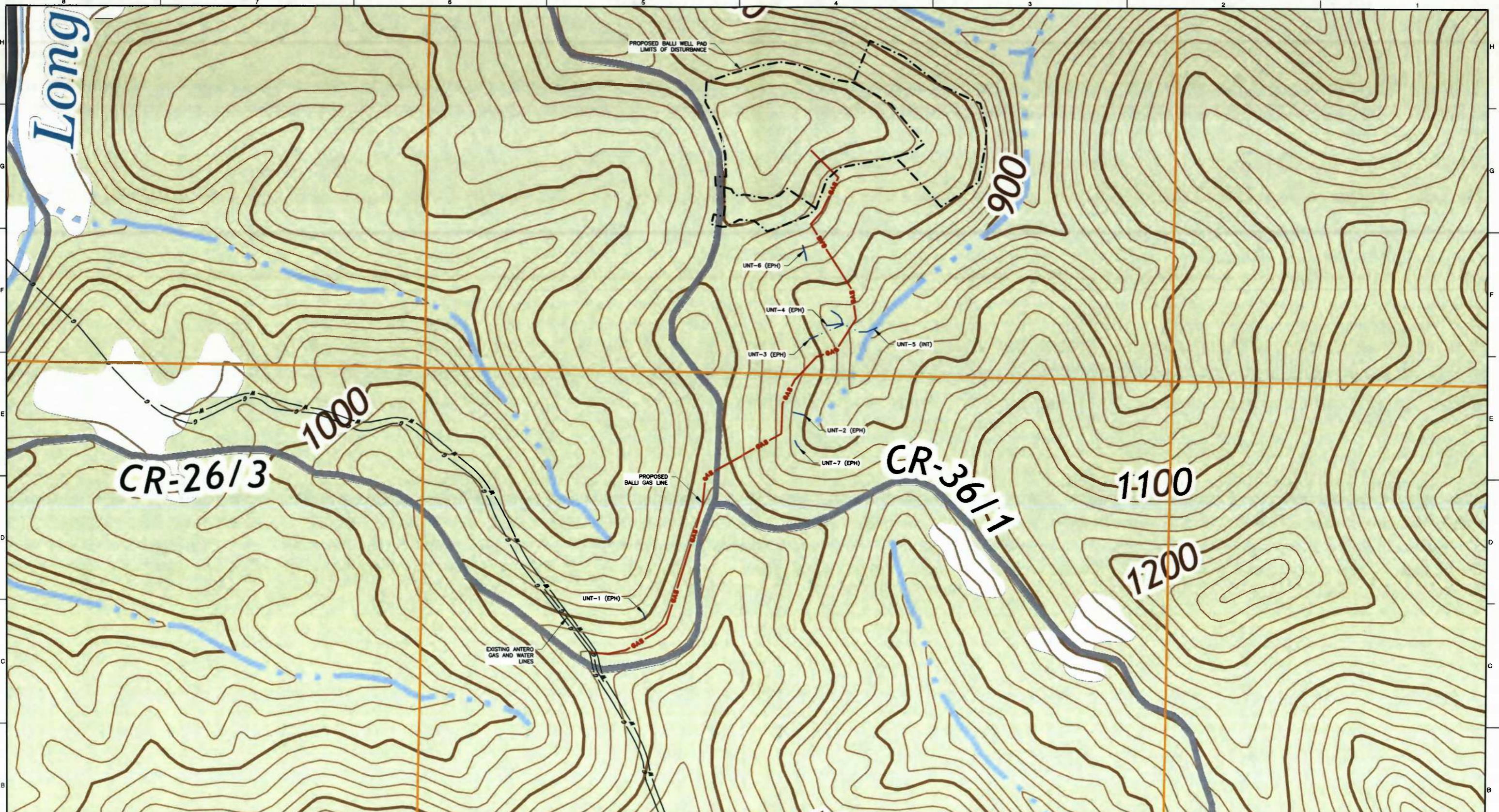
**Antero**  
Midstream PARTNERS LP

**BALLI PIPELINE**

16" GAS LINE  
CENTRAL DISTRICT, DODDRIDGE COUNTY, WV

DATE: DECEMBER 2014 PROJECT NO: 143-172  
 SCALE: 1" = 100'  
 DRAWN BY: APD  
 CHECKED BY: JHL

SHEET 3 OF 9



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**Civil & Environmental Consultants, Inc.**  
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STREAM AND WETLAND IMPACTS		
STREAM	CLASSIFICATION	STATION
UNT-5	INTERMITTENT	STA. 20+38.77

\*\*STATIONING AS SHOWN IS HORIZONTAL.\*\*

**NORTH**  
 SCALE IN FEET

0 200 400

\*\* THIS PLAN HAS BEEN CREATED ON AN ANSI D (22"X34") SHEET. FOR REDUCTIONS, REFER TO GRAPHIC SCALE. \*\*

**SEAL**

**DRAFT**

REVISION RECORD		
NO.	DATE	DESCRIPTION

STREAM LOCATION MAP

**Antero**  
 MidstreamPartners

**BALLU PIPELINE**

18" GAS LINE  
 CENTRAL DISTRICT, DODDRIEGE COUNTY, WV

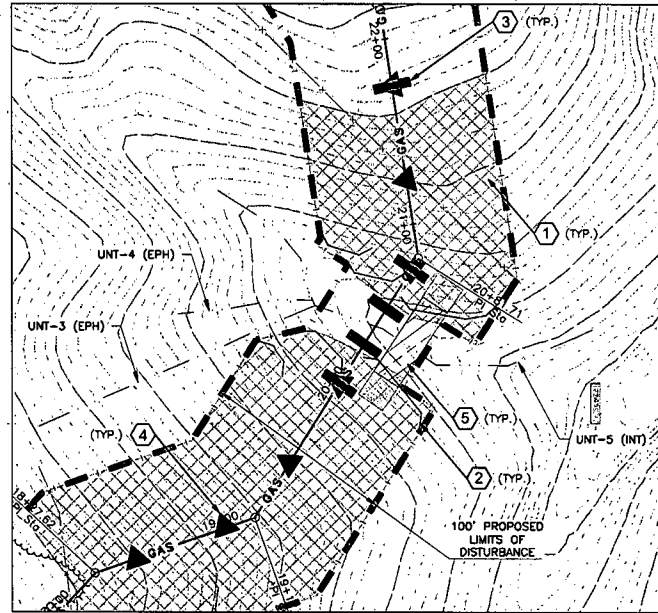
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 DRAWN BY: APD  
 CHECKED BY: JHL

SHEET 4 OF 9

A:\1114\142-172-0001\DWG\11142-172-0001.dwg Stream Impact\Sheet 4.dwg 12/16/2014 8:43 AM

**LEGEND**

	EXISTING INDEX CONTOUR
	EXISTING VEGETATION
	EXISTING UTILITY POLE
	EXISTING GAS WELL
	EXISTING GAS PIPELINE
	EXISTING FENCE
	EXISTING ROADS (UNPAVED)
	EXISTING ROADS (PAVED)
	EXISTING TAX PARCEL PROPERTY LINE
	EXISTING DELINEATED STREAM &
	EXISTING DELINEATED WETLAND
	EXISTING WELL PAD LOD
	PROPOSED GRADING (BY OTHERS)
	PROPOSED GAS LINE
	PROPOSED ACCESS ROAD
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED WATERBAR
	PROPOSED TRENCH PLUG
	PROPOSED EROSION CONTROL BLANKET
	PROPOSED SILT-SAVER PRIORITY 2
	PROPOSED SILT-SAVER PRIORITY 1
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	PROPOSED MOBILE BRIDGE WITH APPROACH



**DETAIL A: UNT-5 (INT)  
STREAM IMPACT**

**NOTES:**

1. INSTALL WATERBARS AT APPROACH TO STREAM CROSSING AS SHOWN. INSTALL SILT FENCE AT OUTLET OF WATERBARS.
2. REFER TO DETAIL 8 OR 9 ON SHEET 9 FOR CROSS SECTION OF FLUME PIPE WITH SAND BAG COFFERDAM.
3. INSTALL FLUME PIPE ON EXISTING STREAMBED IMMEDIATELY PRIOR TO UTILITY LINE INSTALLATION. FLUME PIPE SHALL ONLY REMAIN IN PLACE DURING THE UTILITY LINE INSTALLATION TIME PERIOD. THE UTILITY LINE INSTALLATION TIME PERIOD IS 24-HOURS FOR A STREAM WITH A 10' BOTTOM WIDTH OR LESS AND 48-HOURS FOR A STREAM WITH A 10'-100' BOTTOM WIDTH UNLESS OTHERWISE APPROVED IN WRITING BY THE WDEP.
4. INSTALL WATERBARS AT APPROACH TO STREAM CROSSING AND SILT FENCE ALONG STREAM BANKS. INSTALL SILT FENCE AT OUTLET OF WATERBARS.
5. INSTALL A ROCK PAD APPROACH 10' PRIOR TO THE TIMBER MATS.
6. APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6-INCHES ABOVE ORIGINAL GRADE.
7. MOBILE BRIDGE IS TO EXTEND FROM TOP OF BANK TO TOP OF BANK OF THE STREAM. CONTRACTOR SHALL NOT PLACE FILL UNDER THE MOBILE BRIDGE. FLUME PIPE SHALL NOT SUPPORT MOBILE BRIDGE.
8. CONTRACTOR MAY SUPPLEMENT FLUME PIPE SHOWN WITH ADDITIONAL FLUME PIPES OR PUMPS TO ACCOMMODATE STREAM FLOW DURING CONSTRUCTION.
9. DEWATERING ZONE IS TO BE PUMPED OUT USING A PUMP AND FILTER BAG.
10. GEOTEXTILE SHALL BE ATTACHED TO THE UNDERSIDE OF THE TIMBER MAT BRIDGE.
11. THESE NOTES PERTAIN TO A FLUME CROSSING. REFER TO DETAIL 8 NOTES ON SHEET 9 IF TRENCHING OPTION IS USED.

**KEY NOTES**

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\*\*\*STATIONING AS SHOWN IS HORIZONTAL\*\*

**NORTH**  
SCALE IN FEET

0 50 100

\*\* THIS PLAN HAS BEEN CREATED ON AN ANSI D (22X34) SHEET. FOR REDUCTIONS, REFER TO GRAPHIC SCALE.\*\*

**SEAL**

**DRAFT**

REVISION RECORD		
NO.	DATE	DESCRIPTION
	20141209	PERMIT SET

STREAM CROSSING DETAILS

**BALLI PIPELINE**

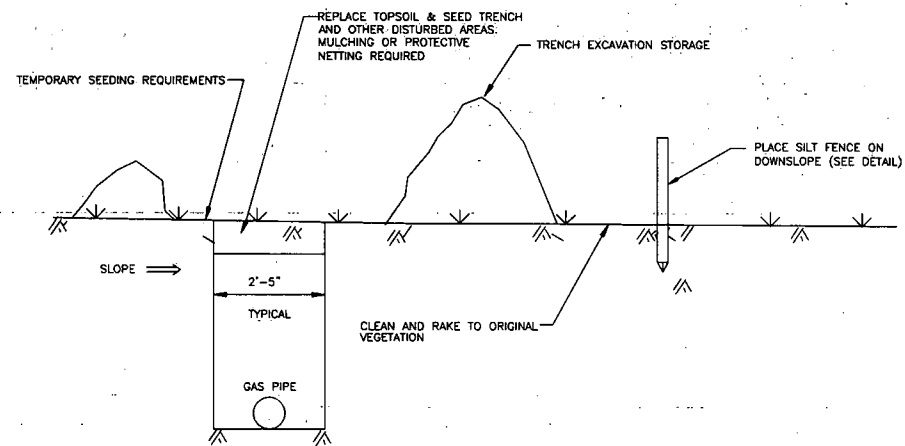
16" GAS LINE  
CENTRAL DISTRICT, DODDRIDGE COUNTY, WV

DATE: DECEMBER 2014 PROJECT NO: 143-172  
SCALE: 1" = 50'  
DRAWN BY: APD  
CHECKED BY: JHL

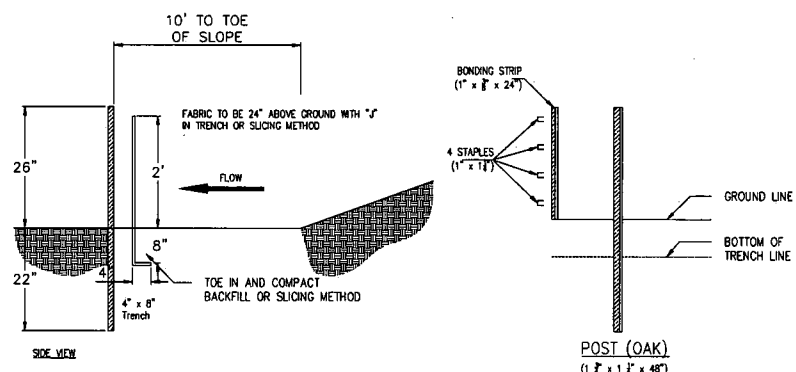
SHEET 5 OF 9



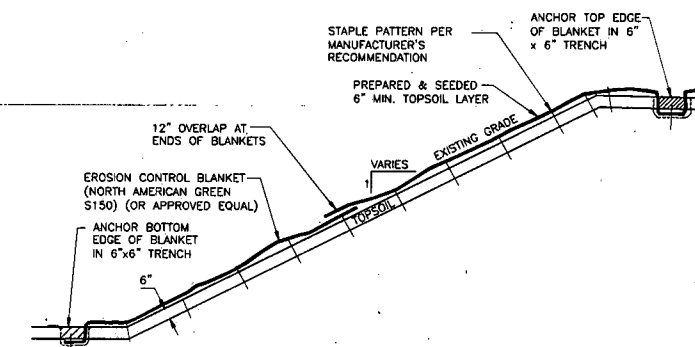




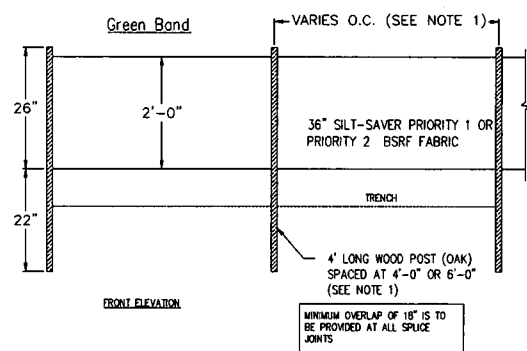
**DETAIL 1**  
**EROSION CONTROL MEASURES FOR PIPELINE TRENCHES**  
NOT TO SCALE



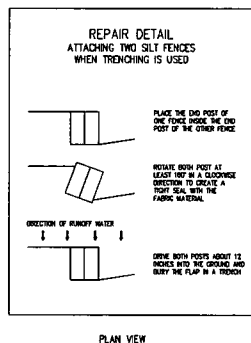
**DETAIL 2**  
**EROSION CONTROL BLANKET STAPLE PATTERN**  
NOT TO SCALE



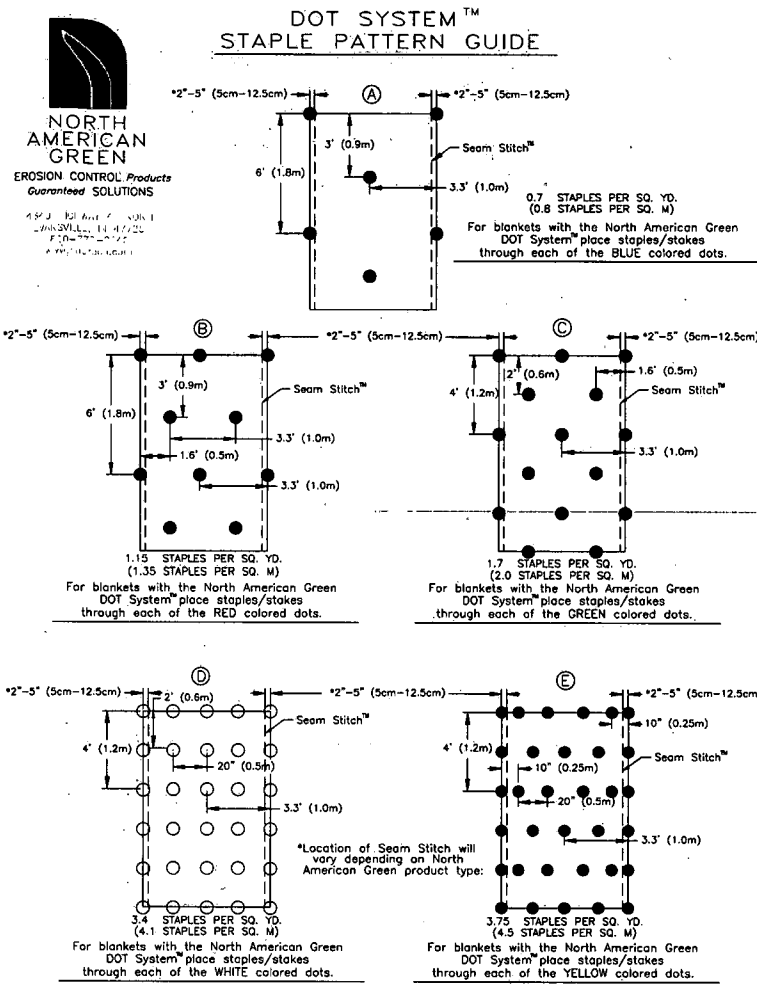
**DETAIL 3**  
**EROSION CONTROL BLANKET**  
NOT TO SCALE



**DETAIL 4**  
**SILT-SAVER SILT FENCE PRIORITY 1 & 2**  
NOT TO SCALE



- NOTES:**
1. POST SPACED @ 4' MAX. FOR PRIORITY 1 AND 6' MAX FOR PRIORITY 2.
  2. POST HOLES MAY NEED TO BE DRILLED IN ROCKY SOIL OR AREAS WHERE CONVENTIONAL INSTALLATION IS DIFFICULT TO ACHIEVE REQUIRED DEPTH.



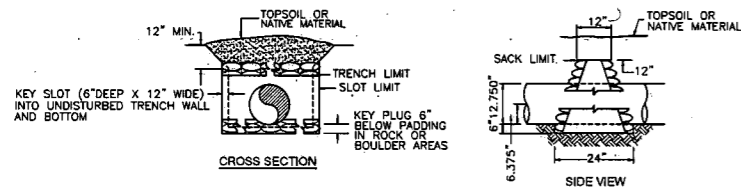
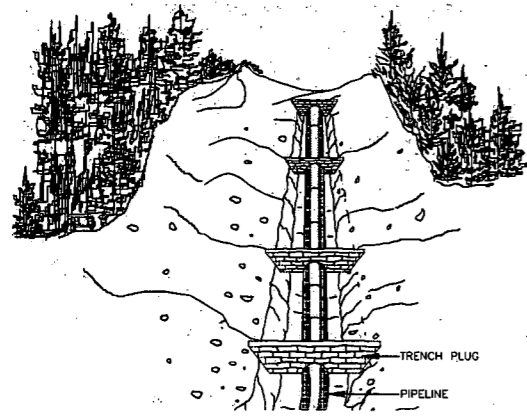
- NOTES:**
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
  2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
  4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
  5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 12" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
  6. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL 3:1 OR STEEPER SLOPES.
  7. REFER TO DETAIL, THIS SHEET FOR STAPLE PATTERN.

SEAL	REVISION RECORD		EROSION AND SEDIMENT CONTROL DETAILS	
	NO.	DATE	DESCRIPTION	
DRAFT				

<b>Antero</b> Midstream Partners LP	
<b>BALLI PIPELINE</b>	
16" GAS LINE CENTRAL DISTRICT, DODDRIDGE COUNTY, WV	
DATE: DECEMBER 2014	PROJECT NO: 143-172
SCALE: AS SHOWN	
DRAWN BY: APD	
CHECKED BY: JNL	SHEET 7 OF 9

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**NOTES:**

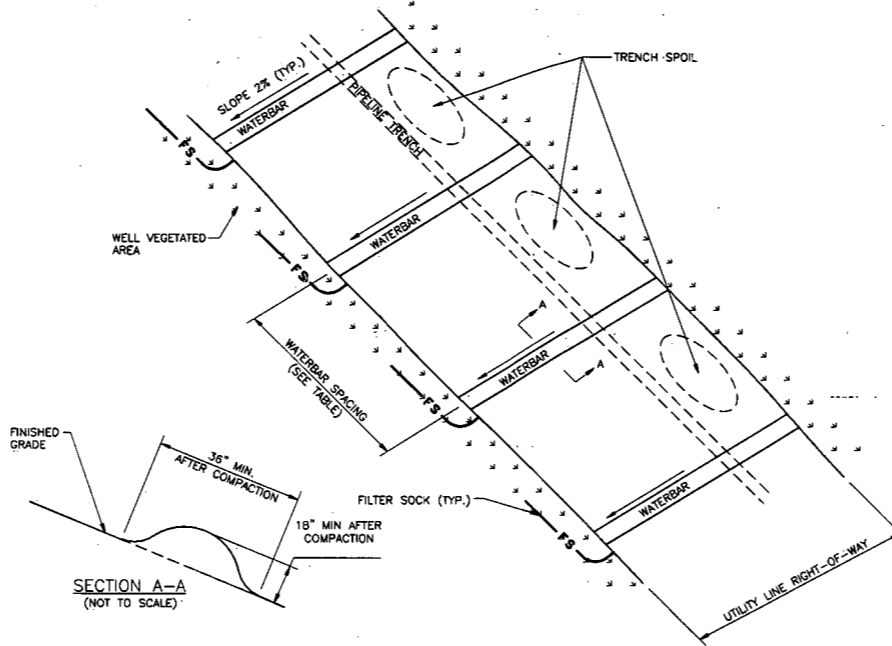
- TRENCH PLUG SHALL BE INSTALLED:
  - ON SLOPES ALONG THE TRENCH LINE WHERE THE NATURAL DRAINAGE PATTERN, PROFILE, AND TYPE OF BACKFILL MATERIAL MAY RESULT IN LOSS OF BACKFILL MATERIAL OR ALTERATION OF NATURAL PATTERN;
  - AT THE BASE OF SLOPES ADJACENT TO WATERBODIES AND WETLANDS
  - WHERE NEEDED TO AVOID DRAINING A WETLAND
  - ON UPLAND SLOPES, AT THE SAME SPACING AS SLOPE BREAKERS AND UP SLOPE OF SLOPE BREAKERS
  - IN CULTIVATED LAND AND RESIDENTIAL AREAS WHERE PERMANENT SLOPE BREAKERS ARE NOT TYPICALLY INSTALLED, AT THE SAME SPACING AS IF PERMANENT SLOPE BREAKERS WERE REQUIRED.
- AS AN ALTERNATIVE TO THE MATERIALS SPECIFIED IN THE TABLE BELOW, OPEN WEAVE HEMP OR JUTE SACKS MAY BE FILLED WITH A MINIMUM OF 55lbs. MIXTURE OF 1 PART CEMENT TO 6 PARTS SAND OR SUBSOIL SO THAT NATURAL GROUND WATER WILL PERMIT MIXTURE TO EXUDE AND BOND SACKS TOGETHER.
- TRENCH PLUG SPACING AND CONFIGURATION MAY BE CHANGED AS DIRECTED BY COMPANY. DEPTH OF DITCH MAY VARY WITH SITE CONDITIONS.
- ALL MATERIALS SHALL BE SUPPLIED BY CONTRACTOR.
- GEOTECHNICAL POLYURETHANE FOAM TRENCH PLUGS MAY BE USED IN LIEU OF SACKS FILLED WITH CEMENT / SOIL MIXTURE.
- TRENCH PLUG SPACING SHOWN BELOW IS THE MAXIMUM ALLOWABLE PER PADEP REGULATIONS. ALL TRENCH PLUG LOCATIONS SHOWN ARE APPROXIMATE. FINAL LOCATIONS WILL BE FIELD IDENTIFIED BY A QUALIFIED INDIVIDUAL TO ACCOMMODATE PIPELINE FITTINGS, SIDE BENDS, OVER BENDS AND SAG BENDS TO ASSURE THAT ALL TRENCH PLUG INDUCED STRESSES ARE MINIMIZED.

MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS		
TRENCH SLOPE (%)	SPACING L (FEET)	TRENCH PLUG MATERIAL
0 - 5	1,000	*CLAY, BENTONITE, OR CONCRETE FILLED SACKS, OR AS SPECIFIED IN NOTES 2 AND 5
5 - 15	500	*CLAY, BENTONITE, OR CONCRETE FILLED SACKS, OR AS SPECIFIED IN NOTES 2 AND 5
15 - 25	300	*CLAY, BENTONITE, OR CONCRETE FILLED SACKS, OR AS SPECIFIED IN NOTES 2 AND 5
25 - 35	200	*CLAY, BENTONITE, OR CONCRETE FILLED SACKS, OR AS SPECIFIED IN NOTES 2 AND 5
35 - 100	100	*CLAY, BENTONITE, OR CONCRETE FILLED SACKS, OR AS SPECIFIED IN NOTES 2 AND 5
OVER 100	50	CEMENT FILLED BAGS, (WETTED), MORTARED STONE, OR GEOTECHNICAL POLYURETHANE FOAM

\*TOPSOIL MAY NOT BE USED TO FILL SACKS.

\*\*IMPERVIOUS TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, WETLAND, OR OTHER WATERBODY CROSSINGS.

**DETAIL 5  
TRENCH PLUG**  
NOT TO SCALE



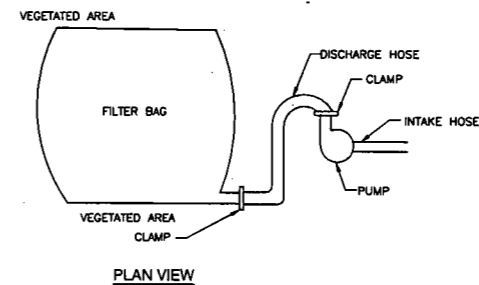
**NOTES:**

- WATERBARS (SLOPE BREAKERS, INTERCEPTOR DIKES) SHOULD BE INSTALLED ACROSS THE ENTIRE RIGHT-OF-WAY ON ALL SLOPES GREATER THAN 5%.
- WATERBARS SHALL BE PLACED AT 2% SLOPE DOWNHILL. THEY SHALL BE SPACED AT THE INCREMENTS AS SHOWN ON THE PLANS, AND IN ACCORDANCE WITH THE WWOEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL AND THE WWOEP EROSION AND SEDIMENT CONTROL FIELD MANUAL.
- WATERBARS SHOULD BE CONSTRUCTED AT A SLOPE OF 2% AND DISCHARGE TO A WELL-VEGETATED AREA. WATERBARS SHOULD NOT DISCHARGE INTO AN OPEN TRENCH. WATERBARS SHOULD BE ORIENTED SO THAT THE DISCHARGE DOES NOT FLOW BACK ONTO THE RIGHT-OF-WAY. COMPOST FILTER SOCK SHOULD BE LOCATED BELOW THE DISCHARGE END OF THE WATERBAR.
- A SOFT TRENCH PLUG WILL BE USED IN AREAS WHERE WATER MUST BE CONVEYED ACROSS THE PIPELINE TRENCH.

REQUIRED SPACING FOR PERMANENT/TEMPORARY WATERBARS		
PERCENT SLOPE	>200' FROM STREAMS	<200' FROM STREAMS
2-5%	400	200
6-12%	300	150
13-21%	200	100
22-34%	100	50
35-50%	50	25

\* IT IS DIFFICULT TO INSTALL DIVERSIONS ON SLOPES STEEPER THAN 35%. OTHER CONTROL MEASURES MAY BE REQUIRED

**DETAIL 6  
TYPICAL WATERBAR INSTALLATION**  
NOT TO SCALE



**NOTES:**

- FILTER BAGS MAY BE USED TO FILTER WATER PUMPED FROM DISTURBED AREAS SUCH AS UTILITY TRENCHES AND FOOTERS.
- FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
- FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE FILLED OR FAILED. FILTER BAGS WILL BE DISPOSED OF AT A WWOEP APPROVED FACILITY.
- BAGS SHALL BE LOCATED IN WELL VEGETATED (GRASSY) AREAS, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE LINED FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5 PERCENT.
- THE PUMP RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
- FILTER BAGS SHALL BE INSPECTED DAILY AND ANY CORRECTIVE ACTION REQUIRED SHALL BE DONE IMMEDIATELY.

**DETAIL 7  
GEOTEXTILE FILTER BAG**  
NOT TO SCALE

SEAL	REVISION RECORD			EROSION AND SEDIMENT CONTROL DETAILS	
	NO.	DATE	DESCRIPTION		
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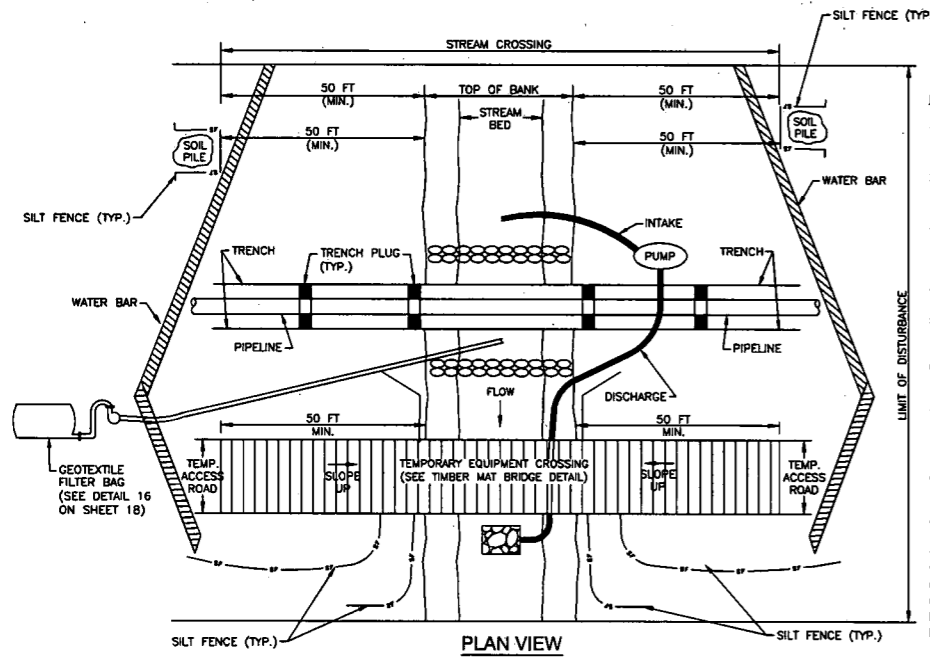
**BALLI PIPELINE**

16" GAS LINE  
CENTRAL DISTRICT, DODDRIDGE COUNTY, WV

DATE: DECEMBER 2014 PROJECT NO: 143-172  
SCALE: AS SHOWN  
DRAWN BY: APD  
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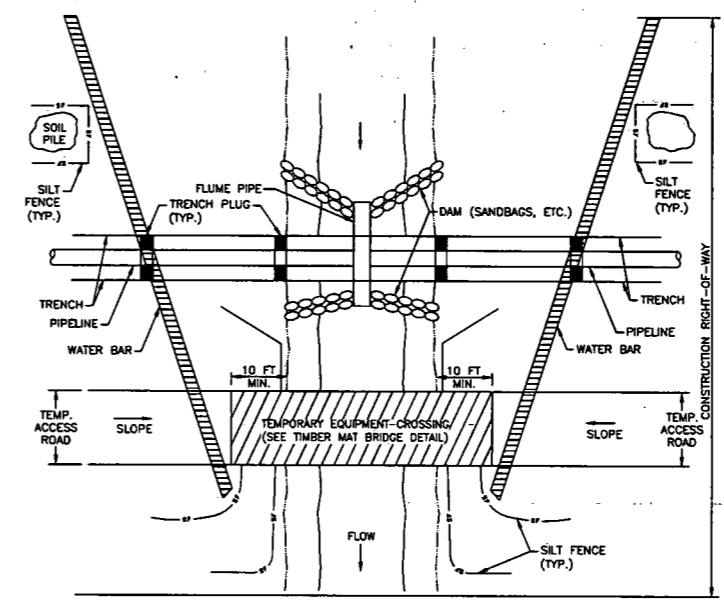
**Civil & Environmental Consultants, Inc.**  
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www.cecinc.com

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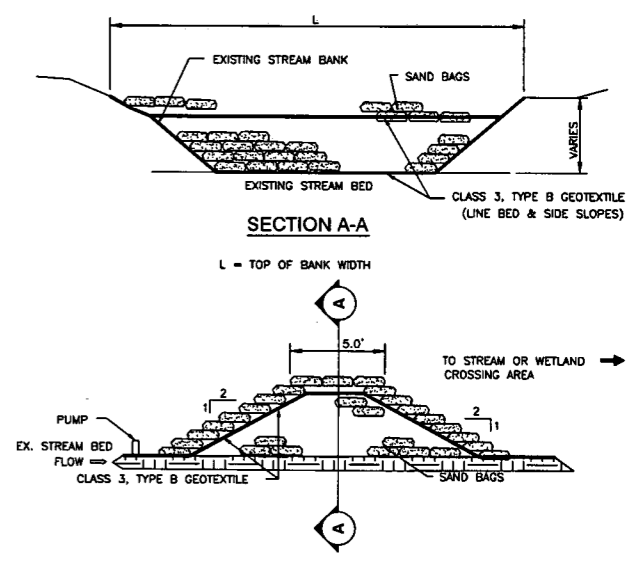
**DETAIL 8**  
**PIPELINE AND EQUIPMENT CROSSING OF STREAM**  
**TRENCHING - PUMP AROUND**  
NOT TO SCALE

- NOTES:**
1. ALL RUNOFF FROM DISTURBED UP-SLOPE AREAS WITHIN LIMIT OF DISTURBANCE MUST BE TREATED FOR SEDIMENT BEFORE IT REACHES STREAM.
  2. INSTALL SILT FENCE, TRENCH PLUGS, PUMP, ENERGY DISSIPATER, AND DAMS BEFORE TRENCHING WITHIN STREAM BED.
  3. PUMP MUST BE OF SUFFICIENT CAPACITY TO CONVEY NORMAL AND/OR EXISTING STREAM FLOW OVER TRENCH. A BACK-UP PUMP OF EQUAL CAPACITY MUST BE AVAILABLE ON-SITE DURING EXCAVATION AND THE 6 MONTH MAINTENANCE PERIOD.
  4. PLACE SPOIL PILES A MINIMUM OF 50 FEET FROM TOP OF BANK.
  5. INSTALL WATER BARS AT APPROACHES TO STREAM CROSSING AND SILT FENCE ALONG STREAM BANKS AND AT DOWNSLOPE END OF WATER BARS.
  6. MAINTAIN SURFACE OF TEMPORARY EQUIPMENT CROSSING TO PREVENT SOIL DISCHARGES TO STREAM.
  7. EXTEND TIMBER MAT 50 FEET, FROM TOP OF BANK, ON BOTH SIDES OF STREAM CROSSING IN ORDER TO MINIMIZE DISTURBANCE OF STREAM BANKS AND RIPARIAN AREAS.
  8. APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6 INCHES ABOVE ORIGINAL GRADE.
  9. PUMP INTAKE SHALL HAVE AN ANTI-AQUATIC IMPEDIMENT SCREEN.
  10. STREAM CHANNELS 10 FEET IN BOTTOM WIDTH OR LESS SHALL BE COMPLETED WITHIN 24 HOURS FROM START TO FINISH, INCLUDING TRENCH BACKFILL, STABILIZATION OF STREAM BANKS AND STABILIZATION OF THE AREA 50 FEET BACK FROM THE TOP OF EACH STREAM BANK. STREAM CHANNELS BETWEEN 10 FEET AND 100 FEET IN BOTTOM WIDTH SHALL BE COMPLETED WITHIN 48 HOURS OR AS APPROVED IN WRITING FROM WV DNR.



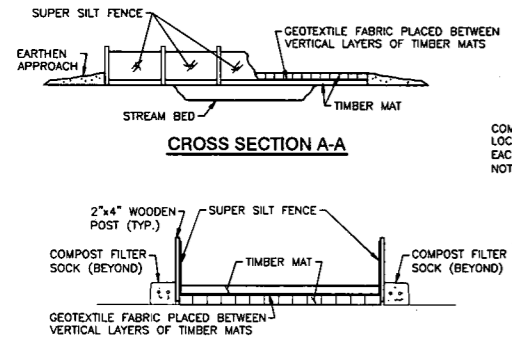
**DETAIL 9**  
**PIPELINE AND EQUIPMENT CROSSING OF STREAM**  
**TRENCHING - FLUME PIPE DIVERSION**  
NOT TO SCALE

- NOTES:**
1. ALL RUNOFF FROM DISTURBED UP-SLOPE AREAS WITHIN CONSTRUCTION RIGHT-OF-WAY MUST BE TREATED FOR SEDIMENT BEFORE IT REACHES THE STREAM CROSSING.
  2. INSTALL SILT FENCE, TRENCH PLUGS, PUMP, ENERGY DISSIPATER, AND DAMS BEFORE TRENCHING STREAM.
  3. FOR FLUME PIPE AND ROCK FILL CROSSINGS, INSTALL FLUME PIPE ON EXISTING STREAMBED. MORE THAN 1 FLUME PIPE MAY BE NEEDED TO SPAN STREAM CHANNEL.
  4. PLACE SPOIL PILES A MINIMUM OF 50 FEET FROM TOP OF BANK.
  5. INSTALL WATER BARS AT APPROACHES TO STREAM CROSSING AND SILT FENCE ALONG STREAM BANKS AND AT DOWNSLOPE END OF WATER BARS.
  6. MAINTAIN SURFACE OF TEMPORARY EQUIPMENT CROSSING TO PREVENT SOIL DISCHARGES TO STREAM.
  7. APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6 INCHES ABOVE ORIGINAL GRADE.



**DETAIL 10**  
**SANDBAG DAM**  
NOT TO SCALE

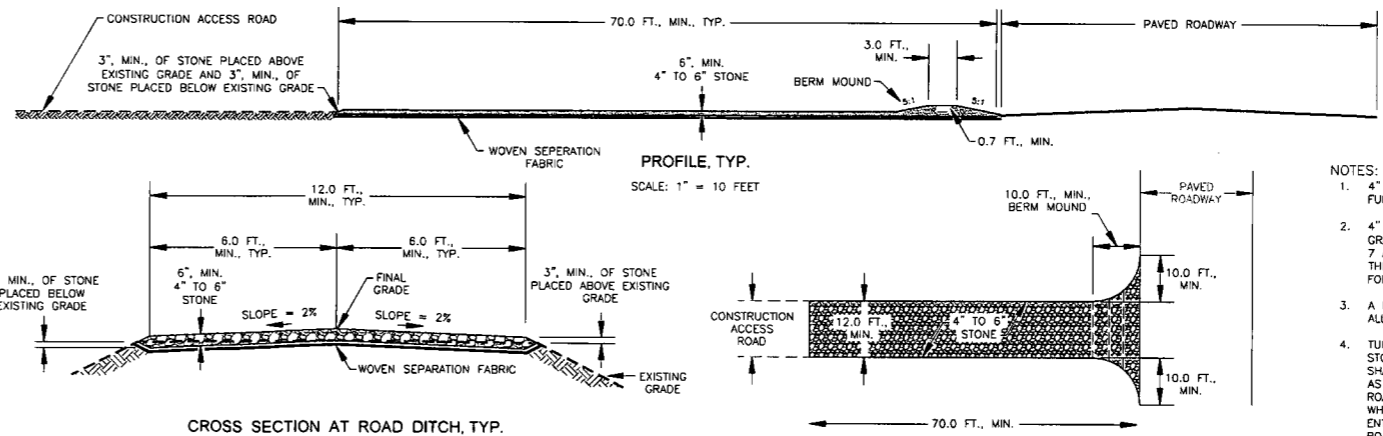
- NOTES:**
1. PUMP OUTLET PIPE TO BE LOCATED AT APPROXIMATE LOCATION SHOWN ON THE PLAN. R-2 STONE TO BE PLACED AT OUTLET. SEE DETAILS FOR CONSTRUCTION SEQUENCE OF STREAM AND WETLAND CROSSINGS.
  2. ADDITIONAL SAND BAGS SHALL BE PLACED AS NEEDED TO PREVENT LEAKAGE INTO CONSTRUCTION AREA.



**CROSS SECTION B-B**

- NOTES:**
1. THIS TYPE OF BRIDGE IS GENERALLY USED FOR SMALL STREAM CROSSINGS LESS THAN 25 FEET IN WIDTH AND A PROPER STREAM BANK CONFIGURATION.
  2. EXTEND TIMBER MAT 50 FEET, FROM TOP OF BANK, ON BOTH SIDES OF STREAM CROSSING IN ORDER TO MINIMIZE DISTURBANCE OF STREAM BANKS AND RIPARIAN AREAS.
  3. BRIDGE WILL BE TEMPORARILY REMOVED IF HIGH WATER RENDERS IT UNSAFE FOR CROSSING.
  4. BRIDGE TO REMAIN IN PLACE UNTIL COMPLETION OF FINAL RESTORATION.
  5. A SKIRT FORMED OF SUPER SILT FENCE SHALL BE PLACED ON THE SIDES AND BOTTOM OF THE BRIDGE TO TRAP SEDIMENT AS NECESSARY.
  6. INDIVIDUAL MATS SHALL BE ANCHORED AND BUTTED TIGHTLY TO MINIMIZE THE INTRODUCTION OF SEDIMENT TO THE WATERBODY.
  7. COMPOST FILTER SOCK WILL BE PLACED AT THE EDGE OF THE EQUIPMENT BRIDGE AT THE END OF EACH WORK DAY TO PREVENT EROSION, BUT WILL BE REMOVED DURING CONSTRUCTION ACTIVITY.
  8. TEMPORARY STREAM CROSSINGS SHALL BE INSPECTED ON A DAILY BASIS.
  9. DAMAGED CROSSINGS SHALL BE REPAIRED WITHIN 24 HOURS OF THE INSPECTION, AND BEFORE ANY SUBSEQUENT USE.
  10. SEDIMENT DEPOSITS ON THE CROSSING OR ITS APPROACHES SHALL BE REMOVED WITHIN 24 HOURS OF THE INSPECTION.

**DETAIL 11**  
**TIMBER MAT BRIDGE EQUIPMENT**  
**CROSSING OVER STREAM**  
NOT TO SCALE



**DETAIL 12**  
**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE

- NOTES:**
1. 4" to 6" STONE SHALL EXTEND THE FULL WIDTH OF THE ACCESS ROAD.
  2. 4" to 6" STONE SHALL MEET THE GRADATION REQUIREMENTS FOR CLASS 7 AGGREGATE IN TABLE 704.6.2A OF THE WYDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.
  3. A MOUNDED BERM MUST BE USED AT ALL STONE CONSTRUCTION ENTRANCES.
  4. TURNOUTS ONTO PAVED ROADS FROM STONE CONSTRUCTION ENTRANCES SHALL BE A MINIMUM OF 10.0 FEET AS MEASURED ALONG THE PAVED ROAD, REGARDLESS OF THE ANGLE AT WHICH THE STONE CONSTRUCTION ENTRANCE ENCOUNTERS THE PAVED ROAD.

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SEAL	REVISION RECORD		
	NO.	DATE	DESCRIPTION
DRAFT			

**EROSION AND SEDIMENT CONTROL DETAILS**

**BALLI PIPELINE**

16" GAS LINE  
CENTRAL DISTRICT, DODDRIDGE COUNTY, WV

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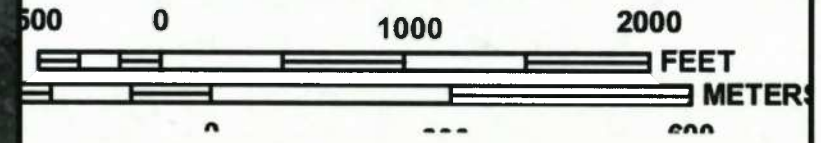
SHEET 9 OF 9



**DODDRIDGE COUNTY  
UNINCORPORATED AREAS  
540024**



MAP SCALE 1" = 1000'



**NFIP**  
**NATIONAL FLOOD INSURANCE PROGRAM**

PANEL 0115C

**FIRM**  
FLOOD INSURANCE RATE MAP  
DODDRIDGE COUNTY,  
WEST VIRGINIA  
AND INCORPORATED AREAS

PANEL 115 OF 325  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DODDRIDGE COUNTY	540024	0115	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER  
54017C0115C  
MAP REVISED  
OCTOBER 4, 2011**

Federal Emergency Management Agency

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