

Commercial/Industrial Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit has been issued to **EQT Production Company**, 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: #14-293 MOSA-S010 Pipeline Project

Date Approved: 12/03/2014

Expires: N/A

Issued to: Antero Resources

**POC: Megan Landfried
304-848-0061**

**Company Address: 115 Professional Place
Bridgeport, WV 26330**

**Project Address: New Milton District
Lat/Long: 39.208936N/80.782330W to 39.211547N/80.766677W**

Purpose of development: Pipeline construction. Project does not impact floodplain.

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

Date: 12/03/2014

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

7014 0150 0001 7356 9348

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

GLENNVILLE WV 26351

OFFICIAL USE

Postage	\$ 0.49	0532
Certified Fee	\$3.30	04
Return Receipt Fee (Endorsement Required)	\$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$0.00	
	\$6.49	10/24/2014

#14-293

I. L. Ike Morris
PO Box 397
Glennville, Wv 26351

PS Form 3800, August 2006

See Reverse for Instructions

7014 0150 0001 7356 9355

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

MEADOWBROOK WV 26404

OFFICIAL USE

Postage	\$ 0.49	0532
Certified Fee	\$3.30	04
Return Receipt Fee (Endorsement Required)	\$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$0.00	
	\$6.49	10/24/2014

#14-293

Justin L Life Henderson
190 Sapphire Ln
Meadowbrook, WV 26404

PS Form 3800, August 2006

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

#14-293
 I. L. Ike Morris
 PO Box 397
 Glenville, Wv 26351

2. Article Number

(Transfer from service label)

7014 0150 0001 7356 9348

COMPLETE THIS SECTION ON DELIVERY

A. Signature

x Mike Triplett

 Agent AddresseeB. Received by (*Printed Name*)

MIKE TRIPLETT

C. Date of Delivery

10-27-14

 D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.4. Restricted Delivery? (*Extra Fee*) Yes

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

27 OCT 1994

• Sender: Please print your name, address, and ZIP+4 in this box •



Doddridge County FPM
118 East Street STE 102
West Union, WV 26456-1262

LA ROBERTS
NEW CLEM
DODDRIDGE COUNTY, WV

2015 OCT 28 AM 10:52

FILED

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

#14-293
 Justin L Life Henderson
 190 Sapphire Ln
 Meadowbrook, WV 26404

2. Article Number

(Transfer from service label)

7014 0150 0001 7356 9355

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Justin L Henderson* Agent
 Addressee

B. Received by (Printed Name)

Justin L Henderson C. Date of Delivery
10-25-14

D. Is delivery address different from item 1? Yes

If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

UNITED STATES POSTAL SERVICE

7507 7507

27 OCT 11A



DODDRIDGE

LEES
INDY, IN

2014 OCT 28

AM 10:52

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

- Sender: Please print your name, address, and ZIP+4 in this box •



Doddridge County FPM
118 East Street STE 102
West Union, WV 26456-1262

Legal Advertisement:
Doddridge County
Floodplain Permit Application

Please take notice that on the 3rd day of October, 2014

EQT Gathering, LLC

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

New Milton District

39.208936N/-80.782330W to 39.211547N/-80.766677W

Permit #14-293 MOSA-S010 Pipeline

The Application is on file with the Clerk of the County Court and may be inspected
or copied during regular business hours.

Any interested persons who desire to
comment shall present the same in writing by **November 6, 2014**, 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



P.O. BOX 150, GLENVILLE, WV 26351
 (304) 462-5634 • FAX (304) 462-5656

LETTER OF TRANSMITTAL

FILED

2014 OCT 10 AM 10:09

DATE	10/9/2014	JOB NO.	7889
ATTENTION			
Bo Wriston, Floodplain Manager			
EQT Production Company - OXF 159 Well Pad			
Associated Pit & Access Road Modification			
Y, WV			

TO: Doddridge County Commission
118 E Court Street
West Union, WV 26456

CLERK OF COURTS
 COUNTY CLERK
 DODDRIDGE COUNTY

> WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
1	10/9/14		Cover Letter
1	10/9/14		FEMA Map
1	10/9/14		Vicinity Map
1	5/1/14		Site Plans

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ 20 _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO SLS Files; Megan Landfried, EQT

SIGNED: Amanda Conley

If enclosures are not as noted, kindly notify us at once.



14-293

FILED

2014 OCT -3 PM 1:41

BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

October 2, 2014

Mr. Bo Wriston
Floodplain Coordinator
Doddridge County Commission
118 East Court Street
West Union, WV 26456

Re: Doddridge County Floodplain Development Permit Application
MOSA-S010 Pipeline Project
Doddridge County, West Virginia
EQT Gathering, LLC

Dear Mr. Wriston:

EQT Gathering, LLC (EQT) proposes to construct a 0.89 mile, 12-inch diameter steel, natural gas pipeline and associated access roads in Doddridge County, West Virginia (Figure 1). The proposed MOSA-S010 Pipeline (Project) will tie into the existing Saturn Pipeline System to the west (39.208936°, -80.782330°) and a proposed Meter Site to the east (39.211547°, -80.766677°). The proposed pipeline will be buried below the ground surface using conventional open cut pipeline construction methods. Access to construct the proposed pipeline will occur via existing and proposed access roads. Kleinfelder, Inc. (Kleinfelder), on behalf of EQT, has enclosed a Doddridge County Floodplain Development Permit Application for your review and approval.

A list of property owners located along the centerline of the Project is included as Attachment A. Figure 1 presents the project on a USGS Topographic Map. Figure 2 presents the project on aerial imagery and depicts the proposed right of way (ROW) associated with the pipeline construction activities.

Kleinfelder biologists conducted stream and wetland investigations and habitat assessments on July 21 – 24, 2014 and August 14-15, 2014 to identify streams and wetlands within a 70.21-acre area of interest (AOI) surrounding the proposed Project. During the site review, 27 jurisdictional features were observed within the AOI and included 16 streams and 11 wetlands.

Based on the engineered design plans, which includes a description of the pipeline construction activities (Attachment B), the installation of the MOSA-S010 Pipeline will temporarily impact two (2) separate reaches of one (1) perennial stream and one (1) palustrine emergent (PEM) wetland.

Construction of the MOSA-S010 Pipeline and upgraded/improved access road(s) will not take place within a designated Federal Emergency Management Administration regulated flood zone according to FIRM Map #54017C0225C within Doddridge County (Attachment C). There will be no fill deposited and no impacts to the floodplain as a result of construction activities. Following completion of construction activities, the ROW will be restored to pre-construction contours.

EQT has submitted a Nationwide Permit 12 Application with the United States Army Corps of Engineers and an Oil & Gas Construction Stormwater General Permit Application / Groundwater Protection Plan with the West Virginia Department of Environmental Protection – Division of Water and Waste Management. Project construction activities will not begin until these permits are received.

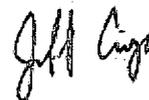
Directions to the Site: From New Milton, WV: Head northwest on Meathouse Fork toward County Route 25/2 for approximately 1.2 miles. Turn left onto WV-18S and continue for approximately 3.0 miles. Turn right on to Porto Rico Road and travel for approximately 0.7 miles. Take the first right onto Maxwell Ridge and continue for approximately 3.4 miles. Make a slight left onto Big Run and continue for approximately 0.2 miles. Make another slight left to stay on Big Run. The access road entrance will be on the left after approximately 0.6 miles.

We appreciate your timely review of this request. Please contact Matt Albright (724-831-5101) or Megan Landfried (304-848-0061) with any questions.

Respectfully submitted,



Matthew J. Albright
Project Manager



Jeffrey Crisp, PE
Senior Engineer

c: Megan Landfried, EQT

Enclosures (6)

- Doddridge County Floodplain Development Permit Application
- Figure 1 – Project Location Map
- Figure 2 – Jurisdictional Features Map
- Attachment A – Property Owner Table
- Attachment B – Engineered Design Plans
- Attachment C – Floodplain Map

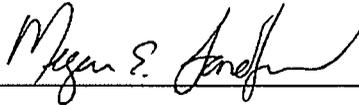


DODDRIDGE COUNTY
FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

SECTION 1: GENERAL PROVISIONS (APPLICANT TO REAL 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

10/2/14

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: EQT Gathering, LLC c/o Megan Landfried

ADDRESS: 115 Professional Place, Bridgeport, WV 26330

TELEPHONE NUMBER: 304-848-0061

BUILDER'S NAME: EQT Gathering, LLC
ADDRESS: 115 Professional Place, Bridgeport, WV 26330
TELEPHONE NUMBER: 304-841-2086

ENGINEER'S NAME: Jeff Crisp, P.E
ADDRESS: 3500 Gateway Centre Blvd., Suite 200, Morrisville, NC 27560
TELEPHONE NUMBER: 919-755-5011 Ext. 136

PROJECT LOCATION:

NAME AND ADDRESSES FOR SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) See Attachment A

DISTRICT: Grant

DATE/FROM WHOM PROPERTY PURCHASED: N/A

LAND BOOK DESCRIPTION: See Attachment A

DEED BOOK REFERENCE: See Attachment A

TAX MAP REFERENCE: See Attachment A

EXISTING BUILDINGS/USES OF PROPERTY: N/A

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

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

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 checked="" 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:

- Fill Mining Drilling Pipelining
- Grading
- Excavation (except for STRUCTURAL DEVELOPMENT checked above)
- Watercourse Altercation (including dredging and channel modification)
- Drainage Improvements (including culvert work)
- Road, Street, or Bridge Construction
- Subdivision (including new expansion)
- Individual Water or Sewer System
- 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 1/2 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 \$Not Applicable.

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 proofing 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 flood proofing 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 _____

FIGURES

FIGURE 1 PROJECT LOCATION MAP

MOSA-S010 Pipeline
EQT Gathering, LLC
Doddridge County, WV

State View



Tie-In to Existing Saturn Pipeline System
39.208936°
-80.782330°

Tie-In to Proposed Meter Site
39.211547°
-80.766677°

Legend

- Proposed Alignment (0.89 mi)
- AOI (70.21 ac)
- Proposed LOD (17.85 ac)
- Existing Road
- Access Road (No Upgrades Required - 1.39 mi)
- Access Road (Upgrades Required - 1.67 mi)
- NHD Stream
- NWI Wetland
- 100 Year Flood Zone
- USFWS Terrestrial Buffer (N/A)
- USFWS Aquatic Buffer

PROJECT #: 20150659.001A

DRAWN: 9/2/2014

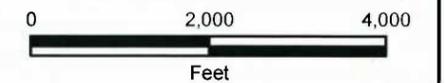
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DRAWN BY: GHB

CHECKED BY: MA

FILE NAME:

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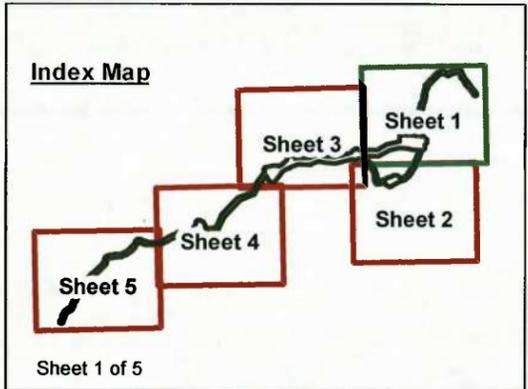


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FIGURE 2 - JURISDICTIONAL FEATURES MAP

MOSA-S010 Pipeline
EQT Gathering, LLC
Doddridge County, WV



Legend

- Proposed Alignment (0.89 mi)
- AOI (70.21 ac)
- Proposed LOD (17.85 ac)
- Delineated Perennial Stream
- Delineated Intermittent Stream
- Delineated Ephemeral Stream
- Delineated PEM Wetland
- Existing Culvert
- Access Road (No Upgrades Required - 1.39 mi)
- Access Road (Upgrades Required - 1.67 mi)
- Site Area
- Existing Workspace
- Existing Road
- 100 Year Flood Zone
- USFWS Terrestrial Buffer (N/A)
- USFWS Aquatic Buffer

PROJECT #: 20150659.001A

DRAWN: 9/2/2014

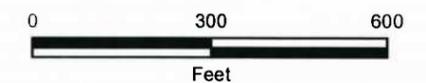
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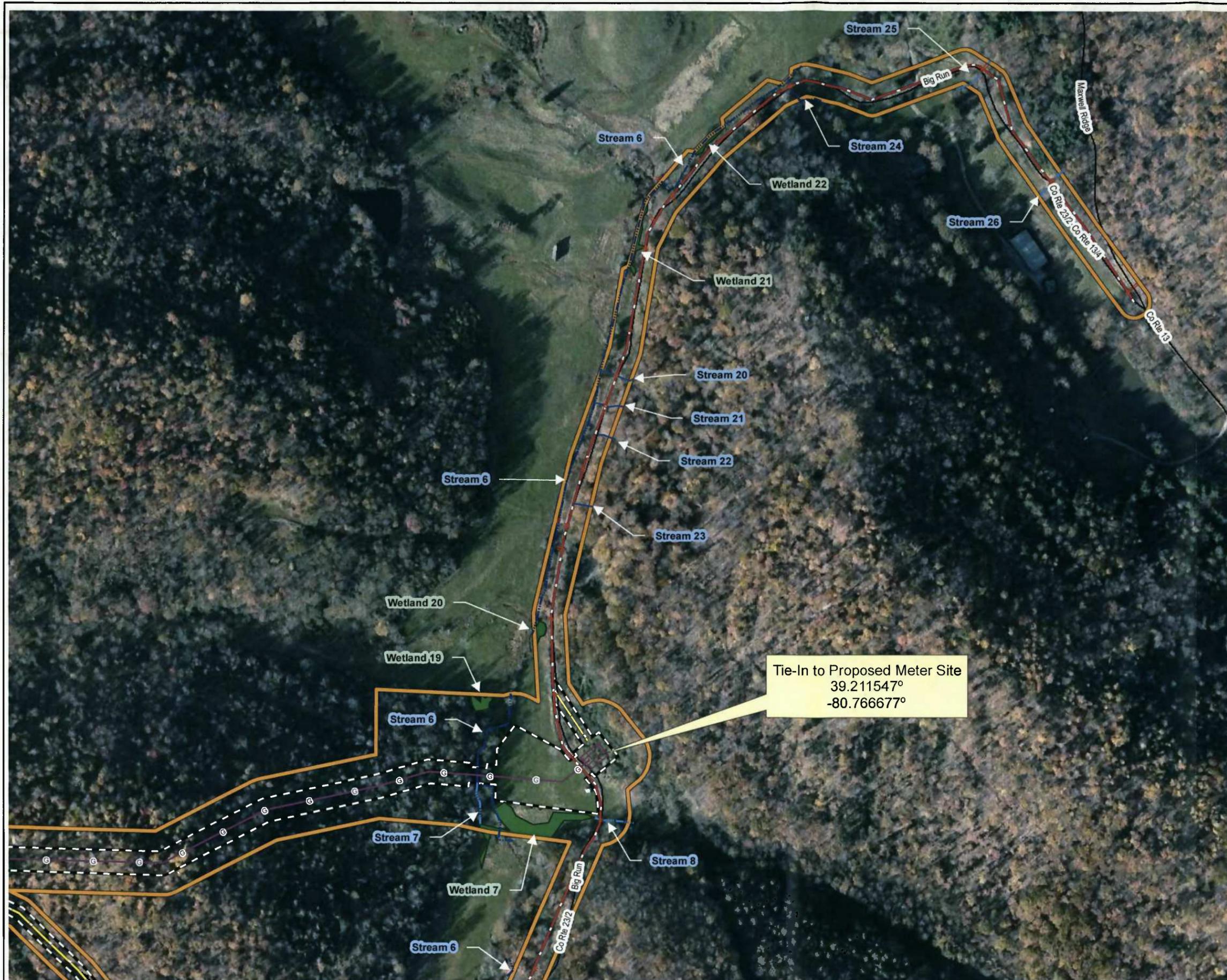
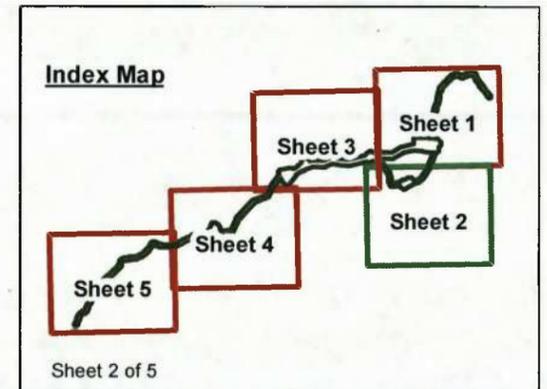


FIGURE 2 - JURISDICTIONAL FEATURES MAP

MOSA-S010 Pipeline
EQT Gathering, LLC
Doddridge County, WV



Legend

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PROJECT #: 20150659.001A

DRAWN: 9/2/2014

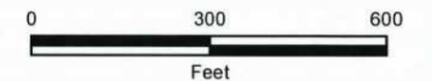
PRINTED: 9/29/2014

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CHECKED BY: MA

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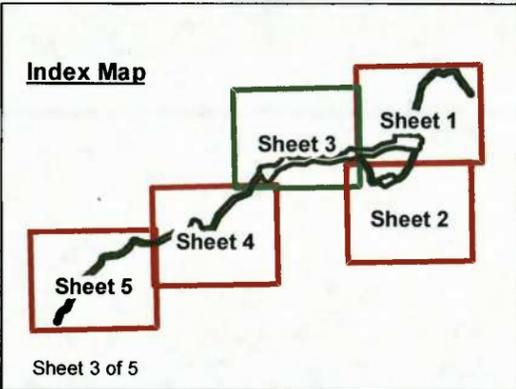


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FIGURE 2 - JURISDICTIONAL FEATURES MAP

MOSA-S010 Pipeline
EQT Gathering, LLC
Doddridge County, WV



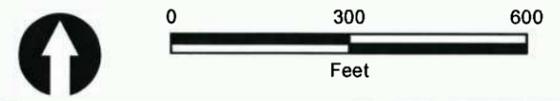
Legend

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- Access Road (Upgrades Required - 1.67 mi)
- Site Area
- Existing Workspace
- Existing Road
- 100 Year Flood Zone
- USFWS Terrestrial Buffer (N/A)
- USFWS Aquatic Buffer

Tie-In to Existing Saturn Pipeline System
39.208936°
-80.782330°



PROJECT #:	20150659.001A
DRAWN:	9/2/2014
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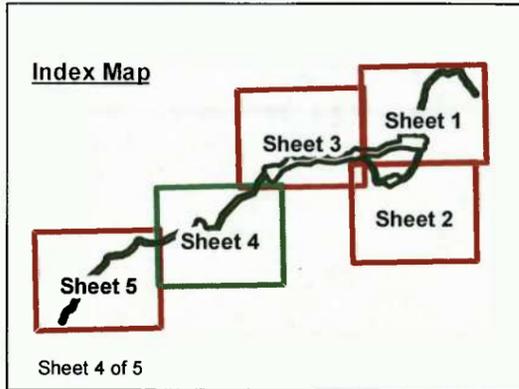
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FIGURE 2 - JURISDICTIONAL FEATURES MAP

MOSA-S010 Pipeline
EQT Gathering, LLC
Doddridge County, WV



Legend

- Proposed Alignment (0.89 mi)
- AOI (70.21 ac)
- ▬ Proposed LOD (17.85 ac)
- ▬ Delineated Perennial Stream
- ▬ Delineated Intermittent Stream
- ▬ Delineated Ephemeral Stream
- ▬ Delineated PEM Wetland
- ▬ Existing Culvert
- ▬ Access Road (No Upgrades Required - 1.39 mi)
- ▬ Access Road (Upgrades Required - 1.67 mi)
- ▨ Site Area
- ▨ Existing Workspace
- ▬ Existing Road
- ▨ 100 Year Flood Zone
- ▨ USFWS Terrestrial Buffer (N/A)
- ▨ USFWS Aquatic Buffer

PROJECT #: 20150659.001A

DRAWN: 9/2/2014

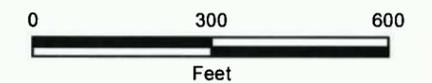
PRINTED: 9/29/2014

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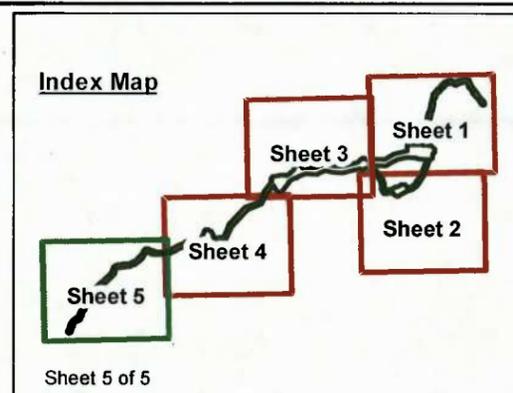


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FIGURE 2 - JURISDICTIONAL FEATURES MAP

MOSA-S010 Pipeline
EQT Gathering, LLC
Doddridge County, WV

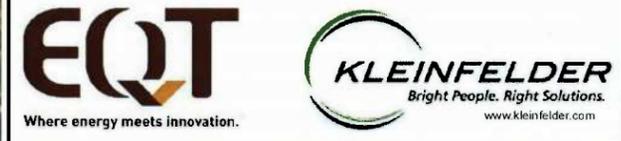


- Legend**
- Proposed Alignment (0.89 mi)
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PROJECT #: 20150659.001A
 DRAWN: 9/2/2014 PRINTED: 9/29/2014
 DRAWN BY: GHB
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Aerial Imagery - ESRI

ATTACHMENT A
PROPERTY OWNER TABLE

Property Owner Table - Doddridge County
EQT Gathering, LLC - MOSA-S010 Pipeline Project

Property Owner Name	Mailing Address	Parcel ID	Deed Book Reference	Land Book Description
HOST PROPERTIES - OUTSIDE FLOODPLAIN				
✓ Morris I L Ike	PO Box 397, Glenville WV 26351	7-10-2	230/307	SOUTH FORK 6600.75 AC
✓ Henderson Justin L Life	190 SAPPHIRE LN, MEADOWBROOK, WV 26404	7-6-1	WB29/224	BLUESTONE 1598.05 AC

ATTACHMENT B
ENGINEERED DESIGN PLANS



EROSION & SEDIMENT CONTROL PLANS FOR THE MOSA-S010 PIPELINE PROJECT

DODDRIDGE COUNTY WEST VIRGINIA SHEET INDEX

PAGE NO.	DESCRIPTION
1	COVER SHEET
2	EROSION AND SEDIMENT CONTROL NOTES
3	OVERALL KEY MAP (AERIAL)
4-12	EROSION & SEDIMENT CONTROL PLANS
13-14	STREAM AND WETLAND CROSSING DETAILS
15-#	EROSION AND SEDIMENT CONTROL DETAILS

PIPELINE DATA

NAME	TOTAL LENGTH	DISTURBED AREA	MOSA S010 AREA OF INTEREST
MOSA-S010 PIPELINE PROJECT	0.89 MILES	17.85 ACRES	70.21 ACRES

EXISTING INFORMATION SOURCES

BASE CONTOUR DATA PROVIDED BY THE WEST VIRGINIA OFFICE OF GIS AT TEN FOOT CONTOUR INTERVALS.

SUPPLEMENTAL SPOT ELEVATIONS AND ALIGNMENT PROVIDED BY:

KLEINFELDER, INC.
230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066

BENCHMARK:
HORIZONTAL - NAD 83 WEST VIRGINIA STATE PLANE, NORTH ZONE, US SURVEY FEET
VERTICAL - NAVD 88 (GEOID03), US SURVEY FEET

TOWNSHIP ROAD DESIGNATIONS OBTAINED FROM WV-DOH
(<http://www.transportation.wv.gov>)

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THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.

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

ENGINEER OF RECORD

KLEINFELDER EAST, INC.
CONTACT: JEFF CRISP, PE # 20354
3500 GATEWAY CENTRE BLVD, SUITE 200
MORRISVILLE, NC 27560
P: 919-755-5011
F: 919-755-1414



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PROJECT OWNER

EQT GATHERING, LLC
C/O MEGAN E. LANDFRIED
115 PROFESSIONAL PLACE
BRIDGEPORT, WV 26330
BUSINESS PHONE: 304-848-0061
FAX: 304-848-0040



SEAL

NO.	REVISION	BY	DATE
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ACAD FILE: MOSA_S010_ESCP_Cover.dwg
PROJ. NO. 20150659

**MOSA-S010 PIPELINE PROJECT
COVER SHEET**

EQT GATHERING, LLC
MOSA-S010 PIPELINE PROJECT

DODDRIDGE COUNTY
WEST VIRGINIA

DESIGNED BY: MDV
MODIFIED BY: -
CHECKED BY: MDI
DATE: 10-02-2014
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 0.5 1.0 1.5 2.0
ESCP
1
1 of 19 sheets

ATTACHED IMAGES: Images: 0811_001.jpg Images: Tag: 0811_001.jpg Images: West Virginia Map.gif
ATTACHED XREFS: XREF: 0811_001.dwg CAD FILE: C:\Users\jeffcrisp\Documents\20150659\MOSA_S010_ESCP_Cover.dwg LAYOUT: 1 COVER SHEET

PLOTTED: 02 Oct 2014, 12:30pm, MVRanjes

GENERAL CONSTRUCTION SEQUENCE

THE FOLLOWING IS A GENERAL SEQUENCE FOR EARTHMOVING ACTIVITIES ASSOCIATED WITH CONSTRUCTION OF THE PIPELINE:

1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS PRIOR TO EARTH DISTURBANCE. PERIMETER SEDIMENT BARRIERS ARE TO BE INSTALLED PRIOR TO CLEARING AND GRUBBING WHERE FEASIBLE. REFER TO BEST MANAGEMENT PRACTICES (BMP) INSTALLATION AND REMOVAL NOTES. ORANGE CONSTRUCTION FENCE SHOULD BE PLACED AROUND SENSITIVE AREAS PRIOR TO EARTH DISTURBANCE. STONE CONSTRUCTION ENTRANCES (SCE) ARE TO BE PROVIDED AT ALL LOCATIONS WHERE TEMPORARY ACCESS ROADS AND PIPELINES WILL BE ACCESSING OR CROSSING A PUBLIC ROADWAY.
2. INSTALL TEMPORARY E&S CONTROLS FOR STREAM CROSSINGS AT LOCATIONS SHOWN ON THE E&S PLAN SHEETS. NO EARTH DISTURBANCE ACTIVITIES WITHIN 50 FEET OF STREAM CHANNELS WILL BE PERFORMED UNTIL MATERIALS NEEDED TO COMPLETE THE CROSSING ARE AT THE NEAREST AVAILABLE LOCATION.
3. GENERAL CLEARING AND GRUBBING OF THE TREES AND BRUSH ALONG THE RIGHT-OF-WAY (ROW) FOR PIPELINE TRENCHING MAY COMMENCE TO THE WIDTH SPECIFIED IN THE ROW AGREEMENTS OR CONSTRUCTION ALIGNMENT SHEETS, WHICHEVER IS LESS. SMALLER DEBRIS, SUCH AS SHRUBS OR LIMBS, ARE TO BE CHIPPED AND UTILIZED ON-SITE AS PART OF THE SOIL STABILIZATION. UNLESS OTHERWISE DIRECTED BY THE LANDOWNER, LOGS WILL EITHER BE HAULED OFF-SITE OR GIVEN TO THE LANDOWNER UPON THEIR REQUEST; STUMPS AND/OR LOGS WILL BE GROUND, CHIPPED, WINDROWED, OR HAULED OFF-SITE.
4. INSTALL TEMPORARY WATERBARS IMMEDIATELY AFTER INITIAL DISTURBANCE OF THE SOIL IN ACCORDANCE WITH THE WATERBAR SPACING AND SIZING REQUIREMENTS SHOWN ON THE PLAN AND DETAIL SHEETS. WATERBARS WILL BE CONSTRUCTED OF SOIL, AND USED TO REDUCE RUNOFF VELOCITY AND DIVERT WATER OFF THE PIPELINE ROW. WATERBARS WILL DRAIN TO A WELL VEGETATED/WOODED AREA. WATERBARS WILL BE INSTALLED WITH COMPOSTED FILTER SOCK AT THE DISCHARGE END.
5. EXCAVATE PIPELINE TRENCH AND BEGIN GRADING OF PROPOSED METER AND RECTIFIER ANODE BED SITES. THE PROPOSED CONSTRUCTION ROW AND EXTRA WORKSPACES ARE TO BE USED AS A WORK AREA FOR TRENCH EXCAVATION, EQUIPMENT MOVEMENT AND THE TEMPORARY STORAGE OF SOIL STOCKPILES, AS NEEDED. EQUIPMENT, SOIL STOCKPILES AND OTHER MATERIALS ARE TO REMAIN UPSLOPE OF BMPs DURING CONSTRUCTION ACTIVITIES. REFER TO BMP INSTALLATION AND REMOVAL SEQUENCE FOR THE BMPs TO BE USED FOR PROTECTION DURING TRENCH EXCAVATION AND AROUND TEMPORARY SOIL STOCKPILES. SEGREGATION OF TOPSOIL AND SUBSOIL WILL BE PERFORMED WHERE TRENCH EXCAVATION TAKES PLACE IN AN AGRICULTURAL, WETLAND OR RESIDENTIAL AREA.
6. PIPELINE SECTIONS WILL BE TRANSPORTED TO THE WORK AREA AND STRUNG ALONG THE WORKING SIDE OF THE ROW PARALLEL TO THE TRENCH LINE. THE PIPELINE WILL BE BENT TO CONFORM TO THE TRENCH CONTOUR, ALIGNED WELDED AND PLACED ON TEMPORARY SUPPORTS ALONGSIDE THE TRENCH. WELDS WILL BE VISUALLY AND RADIO-GRAPHICALLY INSPECTED AND REPAIRED AS NECESSARY. THE PIPE SECTION WILL BE LOWERED INTO THE TRENCH AND PLACED ON PADDING PER EOT CONSTRUCTION STANDARDS. ANY WETNESS ENCOUNTERED DURING CONSTRUCTION WORK WILL BE DEWATERED BY USING PUMPS, HOSES, AND PUMPED FILTER (DEWATERING) BAGS, AND WILL BE DISCHARGED TO A WELL VEGETATED, UPLAND AREA.
7. STREAM PIPELINE CROSSING CONSTRUCTION METHODS WILL BE INSTALLED AT LOCATIONS SHOWN ON THE E&S PLAN SHEETS AND AS SPECIFIED ON DETAIL SHEET. STREAM BANK STABILIZATION WILL BE INSTALLED IMMEDIATELY FOLLOWING COMPLETION OF PIPELINE INSTALLATION AS SHOWN ON THE DETAIL SHEET.
8. INSTALL TRENCH BREAKERS AT LOCATIONS SHOWN ON THE DRAWINGS OR AS DIRECTED BY EOT AND AS SPECIFIED ON THE DETAIL SHEET.
9. THE TRENCH WILL SUBSEQUENTLY BE BACKFILLED WITH SUITABLE EXCAVATED MATERIAL. THE BACKFILL MATERIAL WILL BE SLIGHTLY CROWNED IN UPLAND AREAS TO ALLOW FOR SETTLEMENT THAT MAY OCCUR. CROWNING THE SOIL SLIGHTLY OVER THE PIPELINE WILL HELP PREVENT FUTURE STORM WATER-RELATED PROBLEMS FROM SETTLING OF THE BACKFILLED AREA. NO CROWNING OF SOILS WILL TAKE PLACE IN WETLANDS, STREAMS OR FLOOD PLAINS. IN AREAS WHERE TOPSOIL HAS BEEN SEGREGATED, THE SUBSOIL WILL BE REPLACED FIRST, AND THEN THE TOPSOIL WILL BE SPREAD OVER THE AREA FROM WHICH IT WAS REMOVED. DISTURBED AREAS WILL BE RESTORED TO THEIR APPROXIMATE ORIGINAL TOPOGRAPHIC CONTOURS.
10. STABILIZE EXPOSED AND UNWORKED SOILS BY APPLICATION OF EFFECTIVE BMPs THAT PROTECT THE SOIL FROM THE EROSION FORCES OF RAINDROPS, FLOWING WATER, AND WIND. AREAS AT FINAL GRADE SHOULD BE SEEDED AND MULCHED OR OTHERWISE STABILIZED WITHIN 7 DAYS AND AREAS THAT WILL NOT BE WORKED AGAIN FOR 21 DAYS OR MORE MUST BE SEEDED AND MULCHED OR OTHERWISE STABILIZED WITHIN 7 DAYS.
11. IN THE UNLIKELY EVENT THAT THERE ARE EXCESS EXCAVATED MATERIALS REMAINING AFTER THE TRENCH HAS BEEN BACKFILLED; THE MATERIAL IS TO BE DISPOSED OF WITHIN THE EXISTING ROW IN AN UPLAND AREA OUTSIDE OF THE 100-YEAR FLOOD PLAIN. MATERIAL WILL BE SPREAD IN A THIN LAYER AND TIED INTO EXISTING CONTOURS TO CREATE POSITIVE DRAINAGE FOR STORMWATER RUNOFF.
12. CONSTRUCT PERMANENT WATERBARS AFTER COMPLETION OF GRADING IN ACCORDANCE WITH THE WATERBAR SPACING AND SIZING REQUIREMENTS SHOWN ON PLAN AND DETAIL SHEETS.
13. REVEGETATE DISTURBED AREA PER TABLES ON THIS SHEET OR PER LANDOWNER REQUEST. FOR 3:1 OR STEEPER SLOPES THE DISTURBED AREA WILL HAVE EROSION CONTROL FABRIC (BLANKETING) INSTALLED AS SHOWN ON DETAIL SHEET.
14. RE-ESTABLISH APPROPRIATE DRAINAGE IN EXISTING ROAD CHANNELS PRIOR TO SEEDING AND MULCHING.
15. INSPECTION OF ALL EROSION AND SEDIMENTATION CONTROLS WITHIN DISTURBED AREAS WILL BE, AT A MINIMUM, PERFORMED ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. REPAIRS OR MAINTENANCE SHALL BE PERFORMED IMMEDIATELY TO BMPs. A FINAL INSPECTION SHALL BE REQUESTED ONCE THERE IS UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVERAGE ESTABLISHED. TEMPORARY BMPs WILL BE REMOVED UPON ACHIEVING VEGETATIVE STABILIZATION. THE 70 PERCENT REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT ATTAINING A UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVERAGE SHALL BE RE-SEEDED AS NEEDED UNTIL UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVERAGE IS ESTABLISHED.
16. ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS THAT OCCUR ON SITE DURING CONSTRUCTION SHALL BE HANDLED AND LEGALLY DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF SURFACE WATERS. WOODY

BMP MAINTENANCE

- TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. MAINTENANCE AND REPAIR SHALL BE CONDUCTED IN ACCORDANCE AS STATED IN WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF WATER AND WASTE MANAGEMENT, EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, 2006.
- INSPECTION OF ALL EROSION AND SEDIMENTATION CONTROLS WITHIN DISTURBED AREAS WILL BE, AT A MINIMUM, PERFORMED ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. REPAIRS OR MAINTENANCE SHALL BE PERFORMED IMMEDIATELY TO BMPs. A FINAL INSPECTION SHALL BE REQUESTED ONCE THERE IS UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVERAGE ESTABLISHED. TEMPORARY BMPs WILL BE REMOVED UPON ACHIEVING VEGETATIVE STABILIZATION. THE 70 PERCENT REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT A PERCENT OF THE SITE. DISTURBED AREAS NOT ATTAINING A UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVERAGE SHALL BE RE-SEEDED AS NEEDED UNTIL UNIFORM, PERENNIAL 70 PERCENT VEGETATIVE COVERAGE IS ESTABLISHED.
- TEMPORARY EROSION AND SEDIMENT CONTROL BMPs SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL RESULTING FROM REMOVAL OF BMPs OR VEGETATION SHALL BE PERMANENTLY STABILIZED.

REFERENCES

- WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF WATER AND WASTE MANAGEMENT, EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, 2006.
- WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS, WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, MAY 2012.DF

RECOMMENDED PERMANENT AND TEMPORARY SEED MIXTURES AND FERTILIZER/MULCH FOR REVEGETATION OF UPLAND AREAS

ITEM UPLANDS		
PERMANENT SEED AND MULCH APPLICATION RATES		
Seed	Kentucky 31 tall fescue	65 pounds per acre
Seed	Empire Birdsfoot Trefoil (1/2 Empire, 1/2 Viking)	5 pounds per acre of inoculated seed
Seed	Redfescue	20 pounds per acre
Lime	Agricultural Grade (Pellet Form)	2 Tons per acre without a soil test
Fertilizer	10-20-20	1/2 ton per acre
Mulch	Grass Hay or Cereal Straw	3 tons per acre
TEMPORARY SEED AND MULCH APPLICATION RATES		
Seed	Annual Ryegrass	40 pounds per acre
Mulch	Grass Hay or Cereal Straw	3 tons per acre

NOTES:

1. ALL SEED IS PURE LIVE SEED.
2. UNLESS OTHERWISE REQUESTED BY LANDOWNER IN R.O.W.

REVEGETATION OF WETLAND AREAS

ITEM WETLANDS ²		
Seed	Annual Ryegrass	48 pounds per acre

NOTES:

1. ALL SEED IS PURE LIVE SEED.
2. DO NOT APPLY MULCH, FERTILIZER, OR LIME IN WETLAND AREAS.

ALTERNATE PERMANENT SEED MIXTURES

ITEM ALTERNATE NO. 1		
PERMANENT SEED AND MULCH APPLICATION RATES		
Seed	Alfalfa	18 pounds per acre
Seed	Clover	5 pounds per acre

ITEM ALTERNATE NO. 2		
PERMANENT SEED APPLICATION RATES		
Seed	Orchard Grass	30 pounds per acre
Seed	Clover	5 pounds per acre

ITEM ALTERNATE NO. 3 - WILDLIFE SEED MIX		
PERMANENT SEED APPLICATION RATES		
Seed	ERNMX - 260 PA Piedmont Province UPL Mix	20 pounds per acre
	26% Indiangrass	
	26% Little Bluestem	
	20% Virginia Wildrye	
	10% Big Bluestem	
	7% Purpletop	
	5% Switchgrass	
	4% Deertongue	
	2% Purple Lovegrass	

NOTES:

1. ALL SEED IS PURE LIVE SEED.
2. CONTRACTOR TO USE ALTERNATE SEED MIXTURES PER LANDOWNER REQUEST. DOCUMENTATION PROVIDED BY EOT GATHERING

EQT - MOSA S010 QUANTITIES TABLE

DATE: SEPTEMBER 29, 2014				
ITEM	EACH	LENGTH (FT)	AREA	
PROPOSED PIPELINE	-	4,711	-	
LOD	-	-	19.34	AC
UPGRADED ACCESS ROADS	-	10,507	-	
PROPOSED ACCESS ROADS	-	196	-	
WORKSPACES	-	-	1.25	AC
BMPs				
Silt Fence	-	700	-	
Temporary Diversion Berm	-	6,100	-	
12" Compost Filter Sock	-	2,100	-	
18" Compost Filter Sock	-	2,600	-	
Waterbars	23	-	-	
Broadbased Dips	29	-	-	
Trench Plugs/Breakers	20	-	-	
Stone Construction Entrance	5	-	-	
Cross Drain Culverts				
12" Culvert	1	2	-	
15" Culvert	1	2	-	
18" Culvert	2	6	-	
24" Culvert	2	6	-	
Stream Crossings	2	-	-	
Wetland Crossings	1	-	-	

BEST MANAGEMENT PRACTICES (BMP) INSTALLATION & REMOVAL NOTES

TEMPORARY AND PERMANENT BMPs WILL BE USED DURING CONSTRUCTION ACTIVITIES TO AVOID AND/OR MINIMIZE ADVERSE ENVIRONMENTAL EFFECTS OF CONSTRUCTION ACTIVITIES.

THE FOLLOWING ARE GENERAL BMP INSTALLATION NOTES FOR PIPELINE CONSTRUCTION ACTIVITIES.

- A STONE CONSTRUCTION ENTRANCE, SHOWN ON DETAIL SHEET, SHALL BE PROVIDED AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL BE ACCESSING A PAVED ROAD DIRECTLY FROM A DISTURBED AREA.
- TEMPORARY SEDIMENT BARRIERS, INCLUDING APPROPRIATELY SIZED SILT FENCE OR COMPOST FILTER SOCK WILL BE PLACED AROUND SOIL STOCKPILES, AS NEEDED.
- APPROPRIATELY SIZED SILT FENCING WILL BE PLACED AROUND WETLANDS AND WATERBODIES IN AND ADJACENT TO THE WORK AREA PRIOR TO ANY TRENCHING ACTIVITIES.
- STOCKPILE SLOPES WILL BE 2:1 OR FLATTER, AND STOCKPILES WILL NOT EXCEED 35 FEET IN HEIGHT.
- TEMPORARY STREAM CROSSINGS SHALL BE INSTALLED AS INDICATED ON THE E&S PLAN SHEETS AND AS PER THE E&S DETAIL SHEETS.
- EXCAVATED TRENCH SPOIL MATERIAL WILL BE USED FOR TEMPORARY RIGHT OF WAY DIVERSIONS AS SHOWN IN THE DETAIL AT THE LOCATIONS INDICATED ON THE PLAN SHEETS.
- WATERBARS WILL BE INSTALLED IMMEDIATELY AFTER INITIAL DISTURBANCE OF THE SOIL IN ACCORDANCE WITH THE SPACING AND SIZING REQUIREMENTS SHOWN ON PLAN AND DETAIL SHEET. WATERBARS WILL BE CONSTRUCTED OF SOIL TO REDUCE RUNOFF VELOCITY AND DIVERT WATER OFF THE PIPELINE ROW. WATERBAR WILL DRAIN TO A WELL VEGETATED AREA.
- TRENCH DEWATERING, IF NEEDED, WILL BE CONDUCTED USING A PUMP AND HOSE. WATER WILL BE RELEASED INTO A FILTER BAG THAT WILL BE LOCATED IN A WELL-VEGETATED UPLAND AREA.
- TRENCH BREAKERS WILL BE INSTALLED ON SLOPES ADJACENT TO STREAMS, WETLANDS, AND ROAD CROSSINGS TO PREVENT SUBSURFACE EROSION. TRENCH BREAKERS WILL BE INSTALLED AS SHOWN ON THE DETAILS.
- THE WORK AREA WILL BE BACKFILLED FOLLOWING PIPELINE INSTALLATION OR OTHER EXCAVATION WORK. IN AREAS WHERE TOPSOIL HAS BEEN SEGREGATED, THE SUBSOIL WILL BE REPLACED FIRST, AND THEN THE TOPSOIL WILL BE SPREAD OVER THE AREA FROM WHICH IT WAS REMOVED. DISTURBED AREAS WILL BE RESTORED TO THEIR ORIGINAL TOPOGRAPHIC CONTOURS.
- PERMANENT WATERBARS, WILL BE CONSTRUCTED WITH A TWO PERCENT (TYPICAL) OUTSLOPE TO DIVERT SURFACE FLOW TO A WELL VEGETATED STABLE AREA.
- IMMEDIATELY FOLLOWING BACKFILLING ALL DISTURBED AREAS WILL BE GRADED IN PREPARATION FOR SEEDING AND MULCHING. THE CONSTRUCTION SITE SHOULD BE STABILIZED AS SOON AS POSSIBLE AFTER COMPLETION ESTABLISHMENT OF FINAL COVER MUST BE INITIATED NO LATER THAN 7 DAYS AFTER REACHING FINAL GRADE. REFER TO TABLES ON THIS SHEET FOR TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS.
- FOR 3:1 OR STEEPER SLOPES THE DISTURBED AREA WILL HAVE EROSION CONTROL BLANKETING INSTALLED AS INDICATED ON DETAIL SHEET.
- TEMPORARY SEDIMENT BARRIERS WILL BE MAINTAINED, UNTIL VEGETATION HAS BECOME ESTABLISHED WITH A UNIFORM COVERAGE OF DENSITY OF 70 PERCENT OR MORE WITHIN THE DISTURBED ROW. ONCE THIS COVERAGE HAS BEEN OBTAINED, APPROPRIATE CONTROLS WILL BE REMOVED FROM THE WORK AREA. AREAS DISTURBED DURING THE REMOVAL OF THE EROSION CONTROLS WILL BE STABILIZED IMMEDIATELY. THE 70 PERCENT REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT A PERCENT OF THE SITE.
- ALL WASTE MATERIAL WILL BE TRANSPORTED OFFSITE FOR RECYCLING AND/OR DISPOSAL AT A FACILITY APPROVED TO RECEIVE THE MATERIAL.

STREAM CROSSING PROCEDURES

GENERAL:

PROCEDURES THAT WILL BE FOLLOWED AT STREAM CROSSING LOCATIONS INCLUDE THE FOLLOWING:

- MINIMIZE CLEARING AND GRUBBING OF VEGETATION UP TO STREAMS, AS POSSIBLE, UNTIL THE TIME OF THE PIPELINE INSTALLATION;
- ONLY THAT AREA WHICH IS REQUIRED FOR PIPELINE INSTALLATION SHALL BE DISTURBED WITHIN THE PROPOSED LIMIT OF DISTURBANCE OR RIGHT-OF-WAY AT STREAM CROSSINGS; LOCATING STAGING AREAS 50 FEET AWAY FROM THE STREAM, WHERE POSSIBLE;
- STORING CHEMICALS, STORING EQUIPMENT, WASHING EQUIPMENT, OR REFUELING EQUIPMENT MUST BE DONE IN AREAS THAT ARE GREATER THAN 100 FEET AWAY FROM THE STREAM;
- SPOIL PILE PLACEMENT AND BMPs WILL BE MONITORED AT ALL TIMES DURING STREAM CROSSING PROCEDURES; ONCE WORK WITHIN A STREAM AREA IS STARTED, IT WILL BE CONDUCTED CONTINUOUSLY TO COMPLETION; EMPHASIS WILL BE PLACED ON MINIMIZING TIME OF DISTURBANCE;
- SPOILS FROM STREAM CROSSINGS MUST BE PLACED AT LEAST 10 FEET FROM THE WATER'S EDGE; AND
- CONSTRUCTION EQUIPMENT WILL NOT BE ALLOWED IN THE STREAM CHANNEL WHEN EXCAVATION CAN BE DONE FROM EITHER SIDE OR A TEMPORARY CROSSING WHILE WORKING AT THE STREAM CROSSING.

THE FOLLOWING SECTIONS DESCRIBE STREAM CROSSING TECHNIQUES THAT MAY BE USED DURING PIPELINE/RELOCATION/INSTALLATION ACTIVITIES. REFER TO THE DETAIL SHEETS AND SWPPP FOR ADDITIONAL INFORMATION.

DRY CROSSING TECHNIQUES:

THESE TECHNIQUES WILL BE USED TO PERFORM PIPELINE WORK IN A RELATIVELY DRY WORKING CONDITION OR AROUND THE OPEN EXCAVATION. THESE TECHNIQUES INCLUDE PUMP AROUND AND FLUME PIPE CROSSING METHODS. THE LIMITING FACTORS FOR THESE TECHNIQUES ARE USUALLY STREAM SIZE, FLOW, AND WATER DEPTH.

DIRECTIONAL BORING IS ALSO A TECHNIQUE THAT CAN BE UTILIZED AS IT WILL LESSEN THE IMPACTS ON THE WATERBODIES.

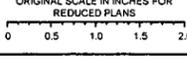
E&S CONTROL MEASURES WILL BE INSTALLED PRIOR TO ANY EARTH DISTURBANCE AND ADDRESSED IF NECESSARY IMMEDIATELY AFTER DISTURBANCE OF THE WATERBODY.

FLUME PIPE METHOD: PLEASE SEE DETAIL SHEETS AND SWPPP FOR MORE INFORMATION ON THE FLUME PIPE METHOD. THIS PROCEDURE INVOLVES CONSTRUCTING TWO BULKHEADS, EITHER SANDBAGS OR PLASTIC DAMS, TO DIRECT THE STREAM FLOW THROUGH A FLUME PIPE PLACED OVER THE TRENCH PRIOR TO EXCAVATION. THE FLUME SHALL BE ALIGNED AS TO PREVENT BANK EROSION AND BED SCOUR. THE FLUME WILL NOT BE REMOVED DURING TRENCHING, PIPE LAYING OR BACKFILLING.

PUMP AROUND METHOD: PLEASE SEE THE DETAIL SHEETS AND SWPPP FOR MORE INFORMATION ON THE PUMP AROUND METHOD. THIS PROCEDURE INVOLVES CONSTRUCTING TWO BULKHEADS, EITHER SANDBAGS OR PLASTIC DAMS. THE UPSTREAM DAM WILL CAUSE THE WATER TO POND WHERE IT CAN BE PUMPED AROUND THE WORK AREA AND BE DISCHARGED BEHIND THE DOWNSTREAM BULKHEAD. PUMPS OF SUFFICIENT SIZE TO TRANSMIT THE FLOW DOWNSTREAM WILL BE USED. BACKUP PUMPS MUST BE ON-SITE. PUMP INTAKES MUST BE SCREENED. PUMP DISCHARGES MUST NOT CAUSE SCOUR.

TEMPORARY ROAD CROSSINGS:
TEMPORARY ROAD CROSSINGS, CONSISTING OF BRIDGES OF TIMBER MATS OR CLEAN ROCK FILL AND FLUME(S), WILL BE INSTALLED TO CROSS MINOR OR INTERMEDIATE STREAMS. TIMBER MATS SHALL BE USED TO CROSS SMALLER STREAMS WHERE THE SPAN OF THE MAT WILL STRETCH FROM BANK TO BANK. CLEAN ROCK FILL AND FLUMED CROSSINGS WILL BE UTILIZED WHERE IT IS NOT FEASIBLE TO UTILIZE TIMBER MATS. AS AN ALTERNATIVE, PORTABLE BRIDGES MAY BE USED INSTEAD FOR SMALL CROSSINGS. EQUIPMENT WILL NOT BE ALLOWED TO FORD FLOWING STREAMS DURING CONSTRUCTION ACTIVITIES. TEMPORARY ROAD CROSSINGS OF STREAMS MUST MAINTAIN FOR ADEQUATE FLOW DOWNSTREAM.

STREAM BANK STABILIZATION:
PERMANENT STABILIZATION SHALL OCCUR IMMEDIATELY UPON INSTALLATION, BACKFILLING, AND GRADING AT EACH STREAM CROSSING.

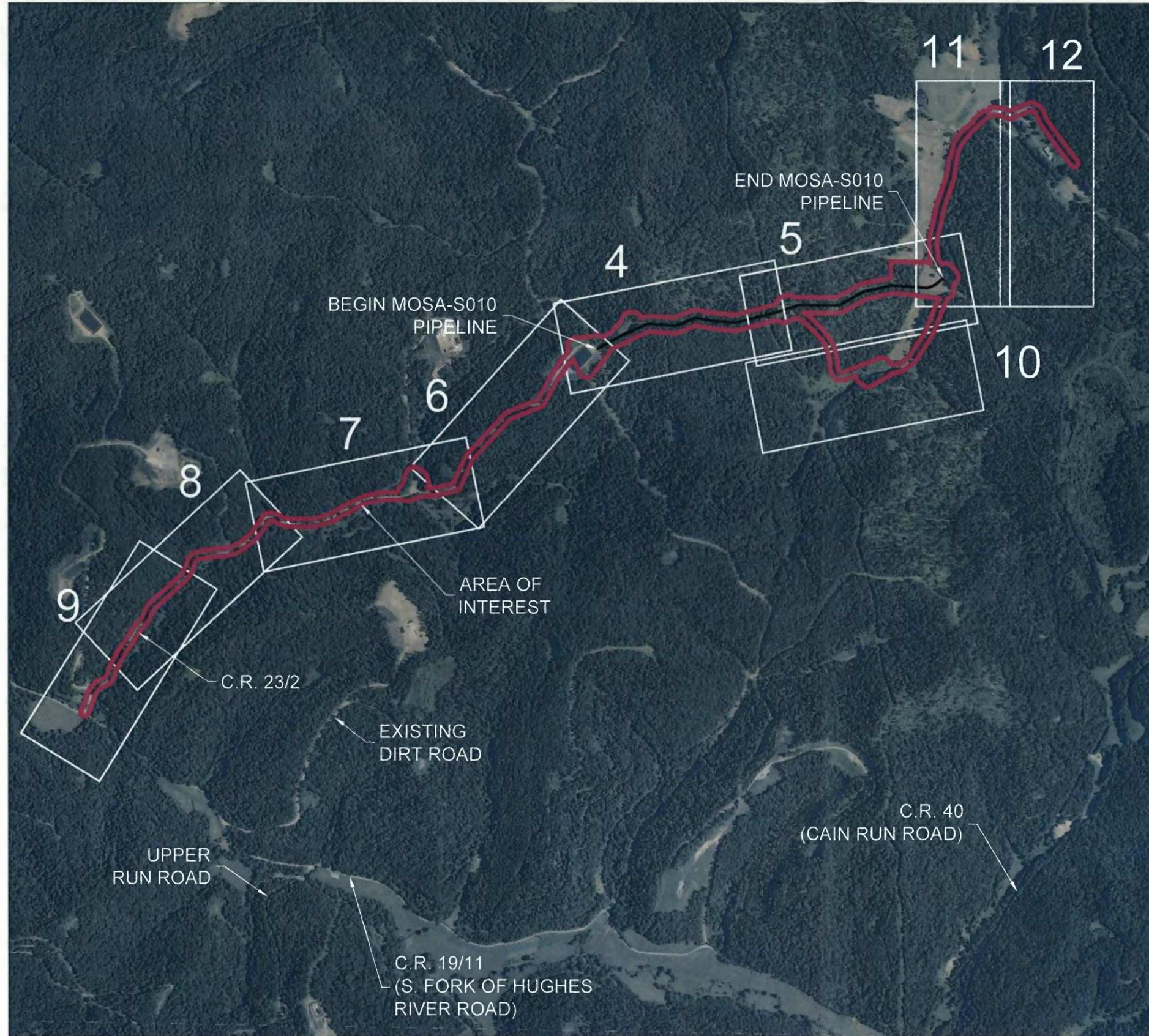
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	BY	-	-	-	-
REVISION					
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MOSA-S010 PIPELINE PROJECT EROSION AND SEDIMENT CONTROL NOTES					
EQT GATHERING, LLC MOSA-S010 PIPELINE PROJECT WEST VIRGINIA DODDRIDGE COUNTY					
DESIGNED BY:	MDV				
MODIFIED BY:	-				
CHECKED BY:	MDI				
DATE:	10-02-2014				
SCALE:	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				
					
ESCP	2				
2 of 19 sheets					



SEAL

ATTACHED IMAGES: Area: xml\mosa_s010.dwg
 ATTACHED XREFS: Area: xml\mosa_s010.dwg
 LAYOUT: 2. EROSION AND SEDIMENT CONTROL NOTES
 CAD FILE: C:\data\west\piping\2014\mosa_s010.dwg\charlie.scp
 LAYOUT: 2. EROSION AND SEDIMENT CONTROL NOTES
 PLOTTED: 02 Oct 2014, 12:32pm, M\ranjits

ATTACHED IMAGES: images_order_NAIPFc_USDA_2011_0m933.dwg Images_order_NAIPFc_USDA_2011_0m933.dwg
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 CAD FILE: C:\Users\jcr\AppData\Local\Temp\16MOSA_S010\Design\Chute\ESCP_LAYOUT_3_OVERALL_KEY_MAP_AERIAL.dwg



NOTES:

- MOSA-S010 PIPELINE PROJECT AREA OF INTEREST DELINEATED FROM 07/21/2014 THROUGH 07/24/2014 AND FROM 08/14/2014 THROUGH 08/15/2014
- TOTAL MOSA-S010 PIPELINE PROJECT AREA OF INTEREST = 70.21 AC.

LEGEND

-  PROPOSED MOSA-S010 PIPELINE PROJECT
-  SHEET CUT
-  MOSA-S010 PIPELINE PROJECT AREA OF INTEREST
- 2** SHEET NUMBER

NO.	REVISION	BY	DATE
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 www.kleinfelder.com
 PRAC. NO. 20150659
 ACAD FILE: MOSA_S010_AERIAL_KEY_MAP-08-27-14.dwg

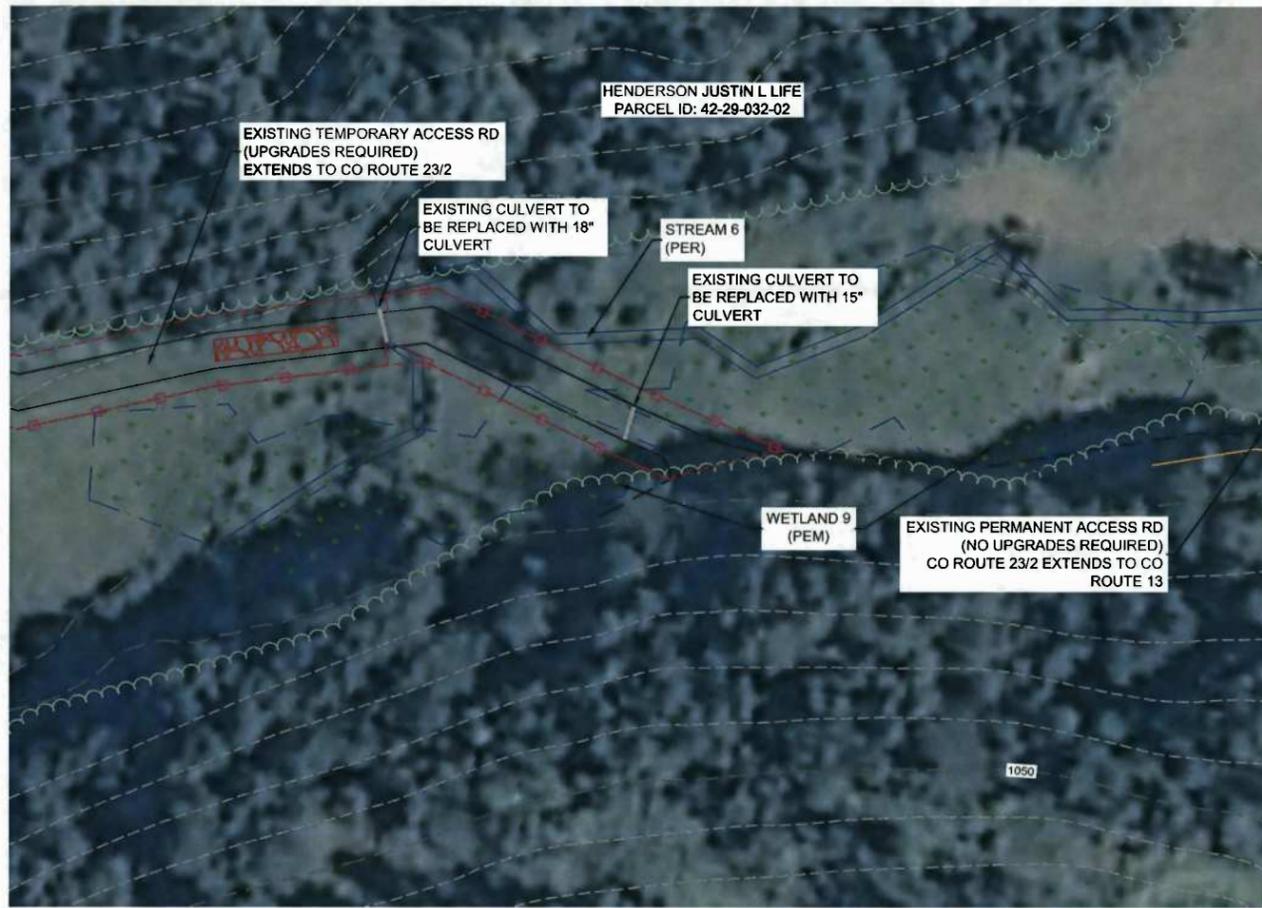
**MOSA-S010 PIPELINE PROJECT
 OVERALL KEY MAP (AERIAL)**
 EQT GATHERING, LLC
 MOSA S010 PIPELINE PROJECT
 DODDRIDGE COUNTY WEST VIRGINIA



SEAL

DESIGNED BY: MDV
MODIFIED BY: -
CHECKED BY: MDI
DATE: 10-02-2014
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
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3 of 19 sheets

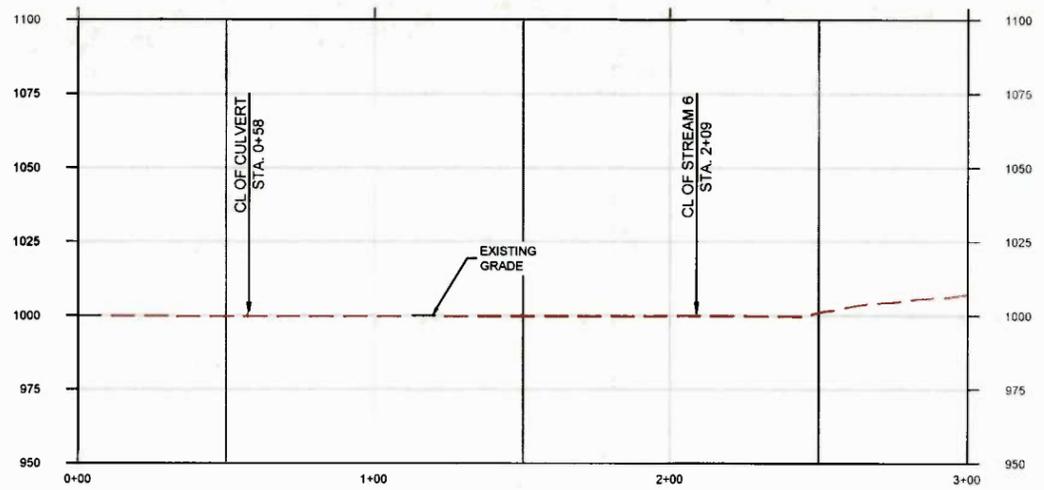
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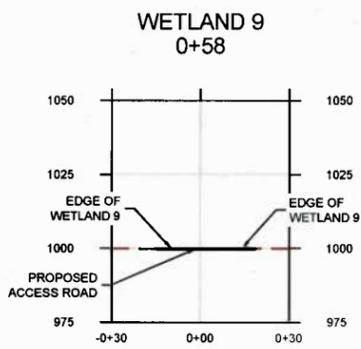
PLAN VIEW
SCALE: 1" = 50'

WETLAND 9 DESIGNATION: PEM
STREAM 6 DESIGNATION: PERENNIAL

PROPOSED METHOD OF CONSTRUCTION:
OPEN CUT CROSSING (DRY CROSSING)

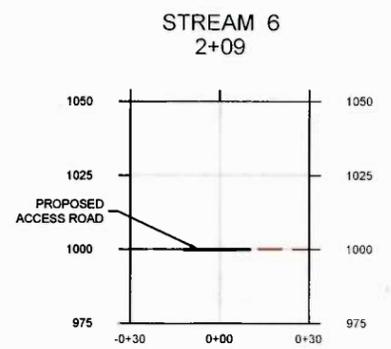


PROFILE (WETLAND 9 AND STREAM 6)
VERTICAL SCALE: 1" = 30'
HORIZONTAL SCALE: 1" = 30'



WETLAND 9
0+58

CROSS SECTION
VERTICAL SCALE: 1" = 30'
HORIZONTAL SCALE: 1" = 30'



STREAM 6
2+09

CROSS SECTION
VERTICAL SCALE: 1" = 30'
HORIZONTAL SCALE: 1" = 30'

NOTES:
1. CONTRACTOR SHALL MAINTAIN 4' MIN. COVER AT STREAM & WETLAND CROSSINGS UNLESS OTHERWISE DIRECTED BY EQT.

EROSION & SEDIMENT CONTROL KEY NOTES

FURNISH & INSTALL MINIMUM 12" DIAMETER COMPOST FILTER SOCK PER DETAIL.
FURNISH & INSTALL RIGHT-OF-WAY DIVERSION. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING SLOPES, AND SHALL INSTALL RIGHT-OF-DIVERSIONS IN APPROPRIATE INTERVALS NEAR WETLAND/STREAM CROSSINGS.
FURNISH & INSTALL TRENCH PLUGS/BREAKERS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING SLOPES, AND SHALL INSTALL TRENCH BREAKERS/PLUGS IN APPROPRIATE INTERVALS NEAR WETLAND/STREAM CROSSINGS.
FURNISH & INSTALL SILT FENCE PER DETAILS.

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- PROPOSED ACCESS ROAD
- EXISTING ROAD
- EXISTING TREE LINE
- PROPOSED PROJECT BOUNDARY
- GAS --- GAS --- PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA

- EXISTING DRAINAGE FEATURE
- RIGHT OF WAY DIVERSIONS
- PROPOSED COMPOST FILTER SOCK OR SUPER SILT FENCE
- PROPOSED TRENCH BREAKER/PLUG
- EROSION AND SEDIMENT CONTROL MATTING (SEE DETAIL 8)
- STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL 11)
- PROPOSED SILT FENCE
- PROPOSED TEMPORARY RIGHT OF WAY DIVERSION BERM (SEE DETAIL 29)



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PRJCL NO. 20150659
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**MOSA-S010 PIPELINE PROJECT
WETLAND 9 AND STREAM 6
CROSSING DETAILS**

EQT GATHERING, LLC
MOSA-S010 PIPELINE PROJECT
DODDRIDGE COUNTY
WEST VIRGINIA

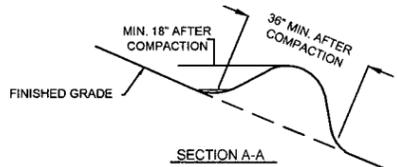
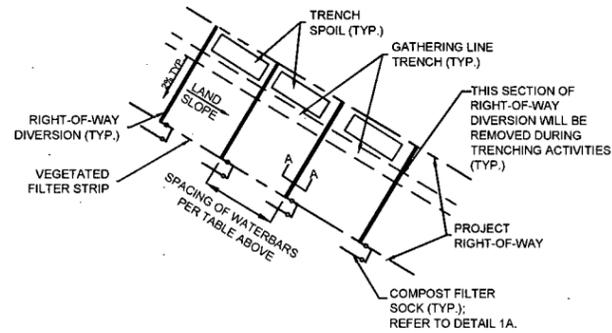
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MODIFIED BY: -
CHECKED BY: MDI
DATE: 10-02-2014
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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
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ESCP

ATTACHED IMAGES: Images created by MAPInfo, USA, 2011. Images used in this project were obtained from the National Wetland Inventory (NWI) and the National Wetland Inventory (NWI) and the National Wetland Inventory (NWI).
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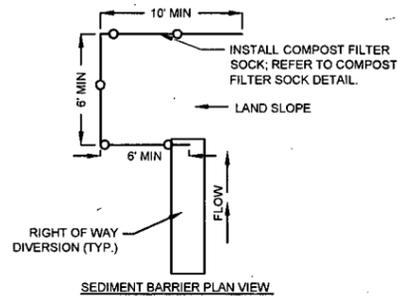
PLOTTED: 02 Oct 2014, 12:50pm, MVM/jms

RIGHT-OF-WAY DIVERSION SPACING IN FEET		
PIPELINE GRADE	> 200' FROM STREAM	< 200' FROM STREAM
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%. THE DIVISION OF WATER AND WASTE MANAGEMENT WILL ALLOW GRATER DISTANCES BETWEEN DIVERSIONS ON EXTREME SLOPES



1 RIGHT OF WAY DIVERSION OUTLET
NTS



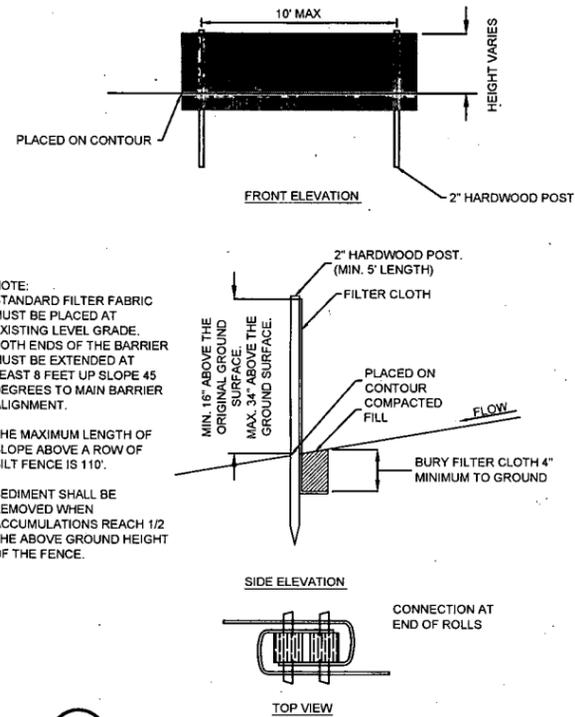
NOTES:

- RIGHT-OF-WAY DIVERSIONS SHOULD BE INSTALLED ACROSS THE ENTIRE RIGHT-OF-WAY ON ALL SLOPES GREATER THAN 5%.
- RIGHT-OF-WAY DIVERSIONS SHALL BE PLACED AT 2% TO 4% SLOPE DOWNHILL. THEY SHALL BE SPACED AT THE INCREMENTS AS SHOWN IN DETAIL 1, AND IN ACCORDANCE WITH WDEP E&S STANDARDS.
- RIGHT-OF-WAY DIVERSIONS SHOULD BE CONSTRUCTED TO DISCHARGE TO A WELL-VEGETATED AREA. RIGHT-OF-WAY DIVERSIONS SHOULD NOT DISCHARGE INTO AN OPEN TRENCH. RIGHT-OF-WAY DIVERSIONS SHOULD BE ORIENTED SO THAT THE DISCHARGE DOES NOT FLOW BACK INTO THE RIGHT-OF-WAY. 12" COMPOST FILTER SOCK SHOULD BE LOCATED BELOW THE DISCHARGE END OF THE RIGHT-OF-WAY DIVERSIONS.

MAINTENANCE:

- RIGHT-OF-WAY DIVERSIONS SHALL BE INSPECTED WEEKLY (DAILY ON ACTIVE ROADS) AND AFTER EACH RUNOFF EVENT. DAMAGE OR ERODED RIGHT-OF-WAY DIVERSIONS SHALL BE RESTORED TO ORIGINAL DIMENSIONS WITH 24 HOURS OF INSPECTION.
- MAINTENANCE OF RIGHT-OF-WAY DIVERSIONS SHALL BE PROVIDED UNTIL RIGHT-OF-WAY HAS ACHIEVED PERMANENT STABILIZATION.
- RIGHT-OF-WAY DIVERSIONS ON RETIRED RIGHT-OF-WAYS SHALL BE LEFT IN PLACE AFTER PERMANENT STABILIZATION HAS BEEN ACHIEVED.

1A RIGHT OF WAY DIVERSION OUTLET
NTS

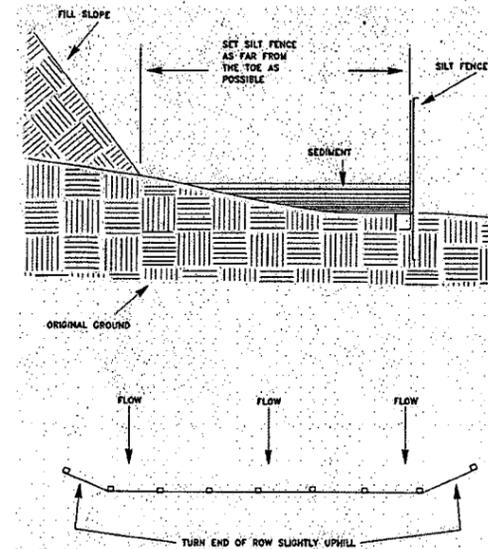


NOTE: STANDARD FILTER FABRIC MUST BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER MUST BE EXTENDED AT LEAST 8 FEET UP SLOPE 45 DEGREES TO MAIN BARRIER ALIGNMENT.

THE MAXIMUM LENGTH OF SLOPE ABOVE A ROW OF SILT FENCE IS 110'.

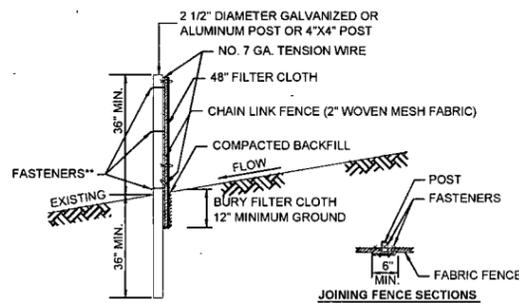
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

2 SILT FENCE
NTS



Slope - Percent	Maximum Slope Length (ft) Above Fence		
	Standard (18" High) Silt Fence	Reinforced (30" High) Silt Fence	Super Silt Fence
2 (or less)	150	250	1000
5	100	220	550
10	50	150	325
15	35	100	215
20	25	70	135
25	20	55	135
30	15	45	100
35	15	45	85
40	15	35	75
45	10	30	60
50	10	25	50

2A SILT FENCE PLACEMENT
NTS



* POSTS SPACED @ 10' MAX. USE 2 1/2" DIA. GALVANIZED OR ALUMINUM POSTS OR 4" x 4" POST.

** CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POST WITH WIRE TIES OR STAPLES. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID-SECTIONS.

NO. 7 GA. TENSION WIRE INSTALLED HORIZONTALLY AT TOP AND BOTTOM OF CHAIN-LINK FENCE.

FILTER FABRIC FENCE SHOULD BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE.

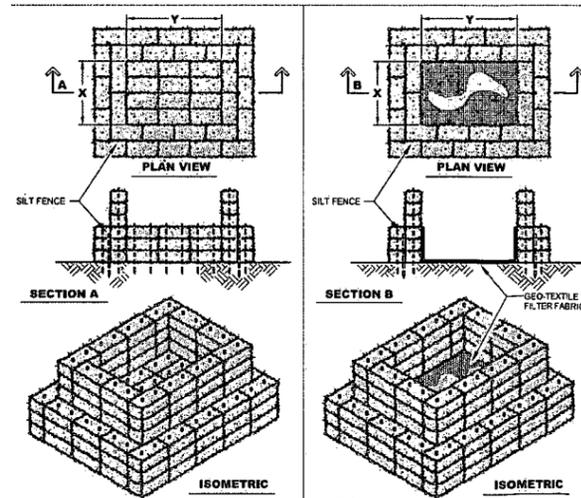
THE LENGTH OF SLOPE ABOVE THE FENCE SHALL NOT EXCEED 400 FEET IN STEEP TERRAIN. IN FLATTER AREAS THE LENGTH CAN BE EXTENDED WITH THE APPROVAL OF THE ENGINEER.

NO SECTION OF SILT FENCE SHOULD EXCEED A GRADE OF 5% FOR MORE THAN A DISTANCE OF 20 FEET.

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

3 SUPER SILT FENCE
NTS

Minimum Sump Dimensions (feet)		Maximum Pumping Rate Gallons per Minute
X	Y	
10	25	200
14	29	350
18	33	450
22	37	550
26	41	650
30	45	750
34	49	850
38	53	950
42	57	1050



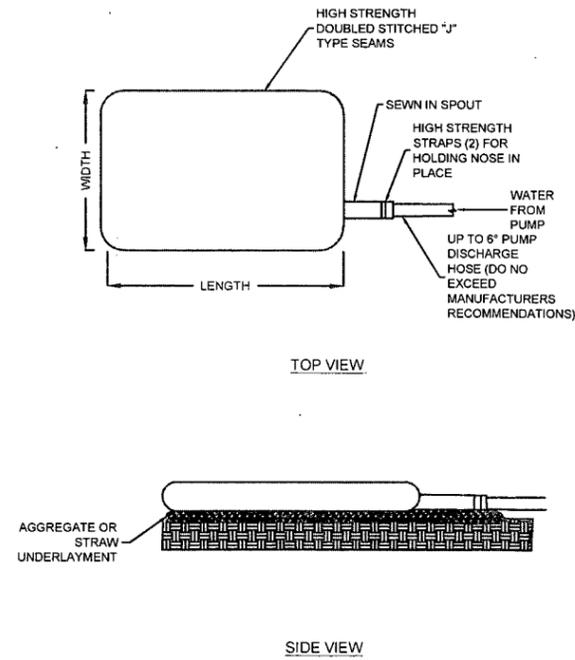
NOTE: ARRANGE THE STRAW BALES TO THE X AND Y DIMENSIONS AS SPECIFIED IN CHART.

NOTE: IN OPTION 2, THE BOTTOM OF STRUCTURE IS NOT LINED WITH STRAW BALES. LINE ENTIRE STRUCTURE WITH GEOTEXTILE FILTER FABRIC.

OPTION 1

OPTION 2

4 STRAW BALE DEWATERING
NTS



5 FILTER BAG
NTS



**MOSA-S010 PIPELINE PROJECT
EROSION AND SEDIMENT
CONTROL DETAILS**

EQT GATHERING, LLC
MOSA-S010 PIPELINE PROJECT

PROJ. NO.
20150659

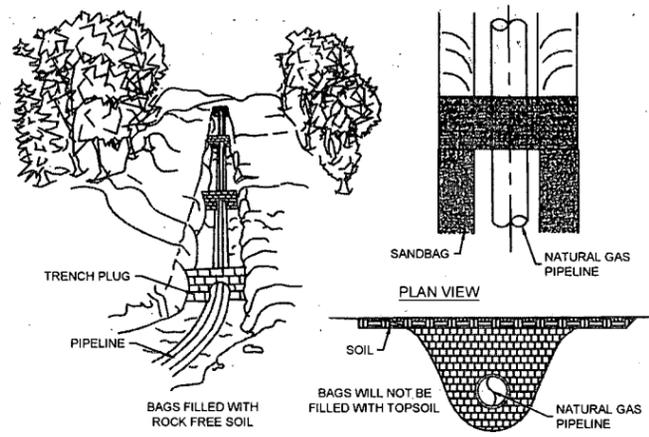
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WEST VIRGINIA
DODDRIDGE COUNTY



SEAL

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DATE:	10-02-2014
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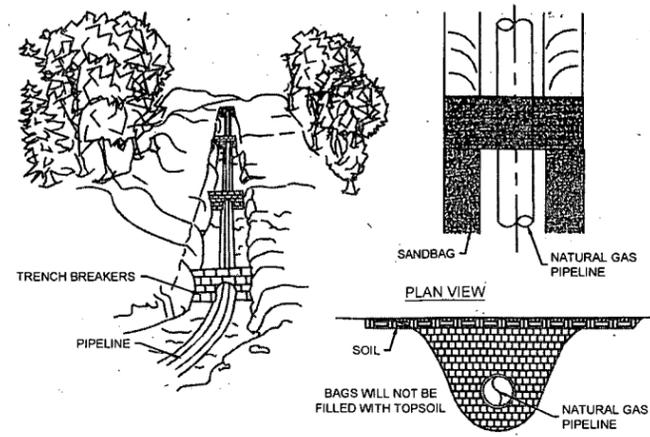


TRENCH PLUG SPACING (FEET)

ALIGNMENT SLOPE %*	SPACING L (FT)	PLUG MATERIAL
< 5 %	1,000	** EARTH FILLED SACKS
5-15 %	500	** EARTH FILLED SACKS
15-25 %	300	** EARTH FILLED SACKS
25-35 %	200	** EARTH FILLED SACKS
35-100 %	100	** EARTH FILLED SACKS

* TRENCH BREAKERS OR TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, OR WATER-BODY CROSSINGS REGARDLESS OF TRENCH SLOPE.
 ** TOP SOIL MAY NOT BE USED TO FILL SACKS.

6 PERMANENT TRENCH PLUG
NTS

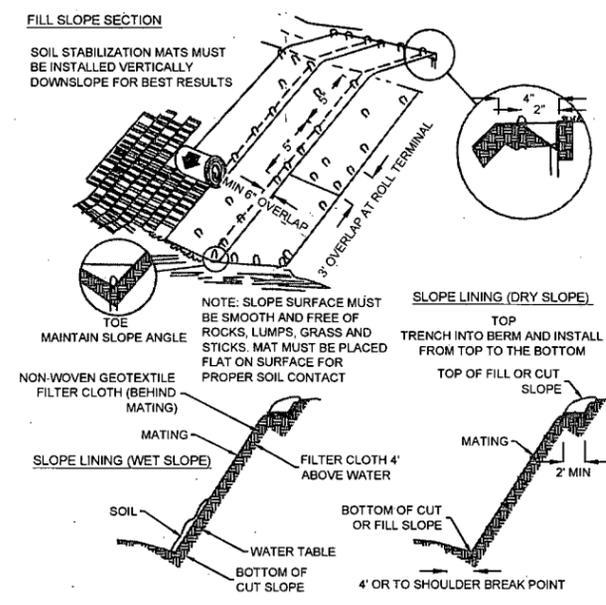


TRENCH BREAKER SPACING (FEET)

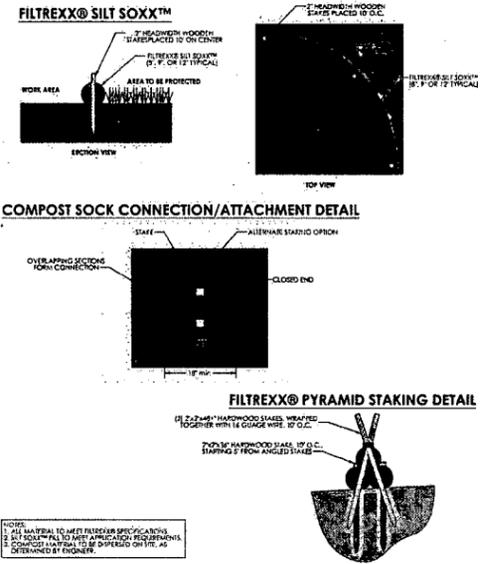
ALIGNMENT SLOPE %*	SPACING L (FT)	BREAKER MATERIAL
< 5 %	1,000	** USE CEMENT FILLED BAGS (WETTED) OR MORTARED STONE
5-15 %	500	** USE CEMENT FILLED BAGS (WETTED) OR MORTARED STONE
15-25 %	300	** USE CEMENT FILLED BAGS (WETTED) OR MORTARED STONE
25-35 %	200	** USE CEMENT FILLED BAGS (WETTED) OR MORTARED STONE
35-100 %	100	** USE CEMENT FILLED BAGS (WETTED) OR MORTARED STONE
> 100 %	50	** USE CEMENT FILLED BAGS (WETTED) OR MORTARED STONE

* TRENCH BREAKERS OR TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, OR WATER-BODY CROSSINGS REGARDLESS OF TRENCH SLOPE.
 ** TRENCH BREAKERS WITH CEMENT FILLED SACKS SHALL BE INSTALLED AND ALLOWED TO CURE WITHOUT ANY SURFACE WATER COMING INTO CONTACT WITH THEM. CONTRACTOR SHALL VERIFY CEMENT HAS CURED AND HARDENED PRIOR TO REMOVING ANY BMPs AROUND THE TRENCH BREAKER AREA.

7 PERMANENT TRENCH BREAKER
NTS



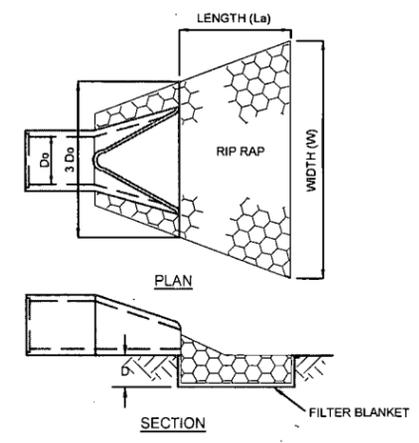
8 ROLLED EROSION CONTROL PRODUCTS
NTS



Notes:
 1. ALL MATERIAL TO MEET FREDERICK SPECIFICATIONS
 2. SET SCOURAL TO MEET APPLICABLE REQUIREMENTS
 3. COMPOST MATERIAL TO BE DISPersed ON SITE AS DETERMINED BY ENGINEER.

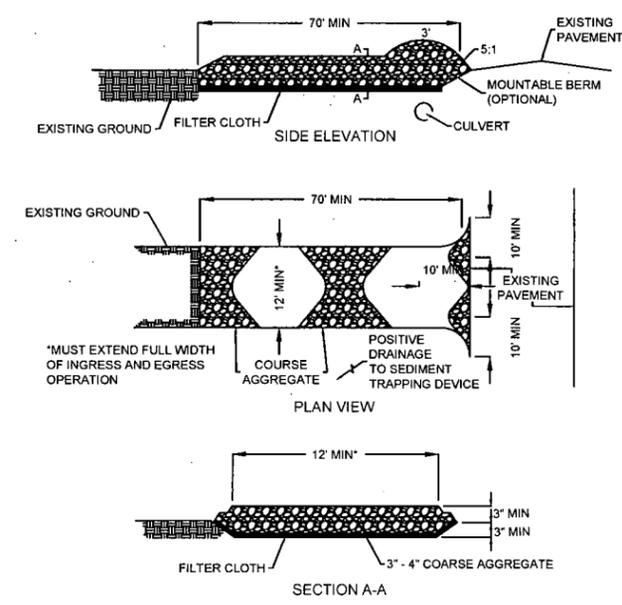
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18	10000	10000	10000	10000	10000
19	10000	10000	10000	10000	10000
20	10000	10000	10000	10000	10000

9 COMPOST FILTER SOCK
NTS



- NOTES:
 1. IF FLARED END SECTION IS DISCHARGING INTO DITCH FROM THE SIDE, EXTEND RIP RAP UP DITCH BANK ON OFF-SIDE A MINIMUM OF 4 FEET.
 2. USE W/DEEP RIP RAP GRADATION AND FILTER BLANKET REQUIREMENTS PER SECTION 3.17 OF THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.
 3. A SUITABLE NON-WOVEN GEOTEXTILE FABRIC, USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, MAY BE SUBSTITUTED FOR FILTER BLANKET STONE UNDER THE RIPRAP.
 4. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".

10 RIP RAP APRON
NTS



- CONSTRUCTION SPECIFICATIONS:
 1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
 2. PLACE THE 3 INCH CRUSHED ROCK TO MATCH FINISHED GRADE AT THE ROADWAY AND SMOOTH IT.
 3. PROVIDE DRAINAGE WHERE NEEDED TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
- MAINTENANCE:
 MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL 3 INCH CRUSHED ROCK. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.
 MAINTENANCE SHOULD BE PROVIDED DAILY, BUT AT A MINIMUM EVERY SEVEN DAYS AND AFTER EVERY RAIN OF 0.5 INCH OR GREATER.

11 STABILIZED CONSTRUCTION ENTRANCE
NTS

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 WEST VIRGINIA

**MOSA-S010 PIPELINE PROJECT
 EROSION AND SEDIMENT
 CONTROL DETAILS**

EQT GATHERING, LLC
 MOSA-S010 PIPELINE PROJECT
 DODDRIDGE COUNTY

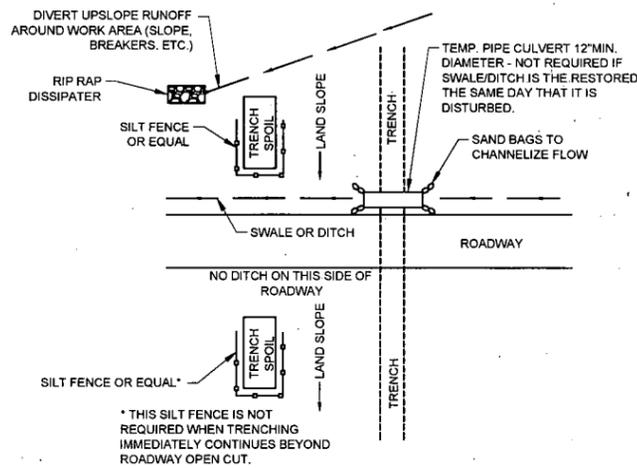
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 16
 16 of 19 sheets



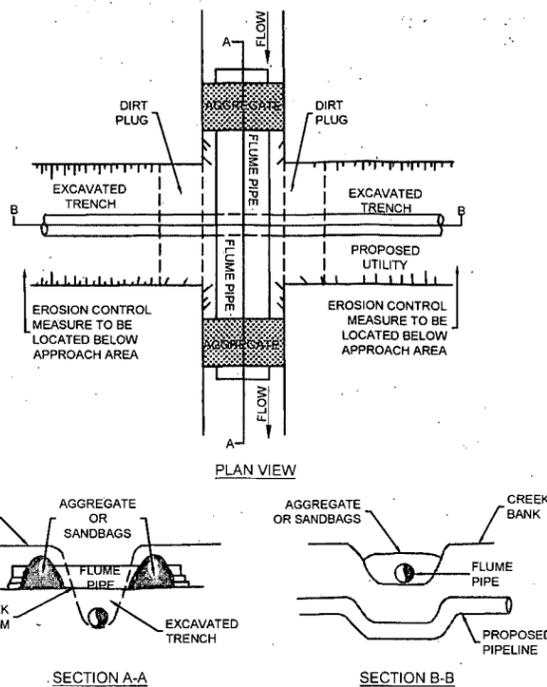
SEAL

ATTACHED IMAGES: Images: Road Details: Erosion: Filter Sock Detail.dwg
 ATTACHED XREFS: XREF: A01_MOSA_S010_ESCP.dwg
 LAYOUT: 16 EROSION AND SEDIMENT CONTROL DETAILS

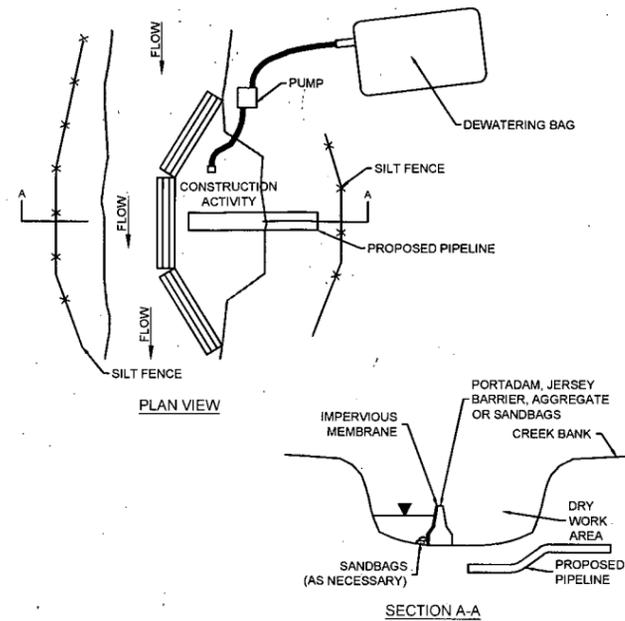
PLOTTED: 02 Oct 2014, 12:51 pm, MVTanjes



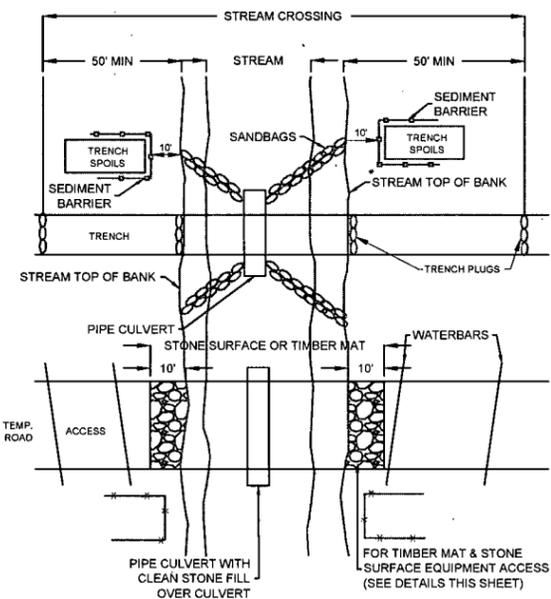
12 OPEN CUT ROAD CROSSING
NTS



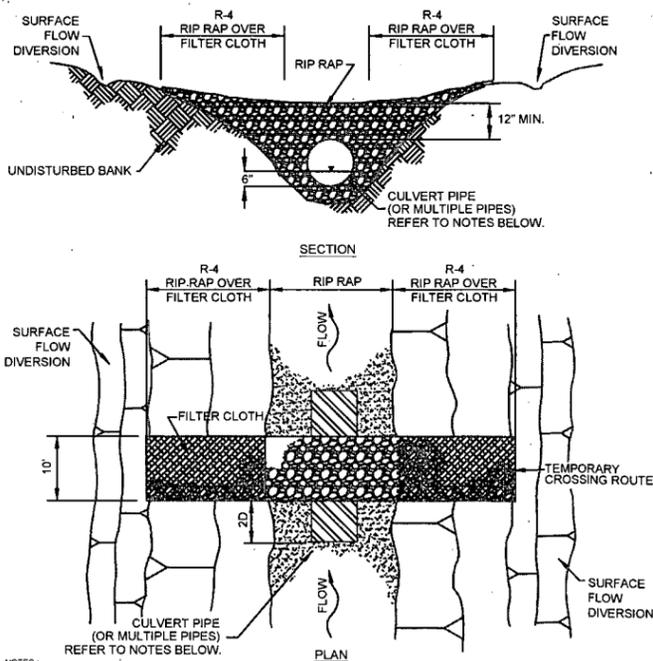
13 FLUME PIPE CROSSING
NTS



14 COFFER DAM CROSSING METHOD
NTS

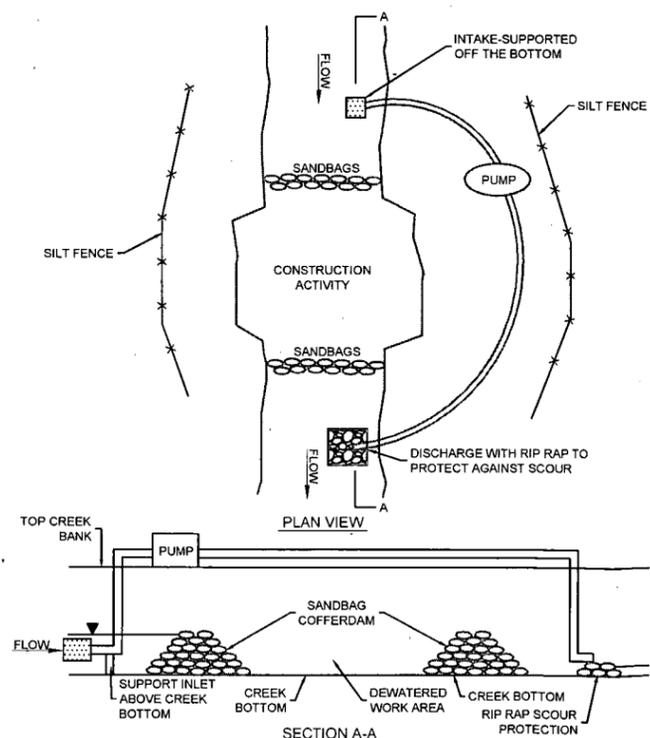


15 FLUMED STREAM CROSSING WITH ACCESS ROAD
NTS



- NOTES:
1. PIPE SHOULD EXTEND BEYOND TOE OF ROADWAY.
 2. ROADWAY SHOULD BE DERESSED OVER CULVERT TO ALLOW FOR OVERFLOW.
 3. CLEAN ROCK FILL SHALL BE USED TO GUARD AGAINST EROSION AND SEDIMENTATION. STREAMBED MATERIAL IS NOT TO BE USED.
 4. MINIMUM SIZE DIAMETER CULVERT TO BE INSTALLED IS 12 INCHES.
 5. APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6 INCHES ABOVE ORIGINAL GRADE.
 6. PROPER EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE INSTALLED.

16 ROCK FLUME BRIDGE
NTS



17 DAM & PUMP AROUND
NTS

NO.	REVISION	BY	DATE
1			
2			
3			
4			
5			

ACAD FILE: MOSA_S010_ESCP_CONSTRUCTION_DETAILS.dwg

KLEINFELDER
Bright People. Right Solutions.
230 EXECUTIVE DRIVE, SUITE 122
CRANBERRY TOWNSHIP, PA 16066
PH. 724-772-7075 FAX. 724-772-7072
www.kleinfelder.com

**MOSA-S010 PIPELINE PROJECT
EROSION AND SEDIMENT
CONTROL DETAILS**

EQT GATHERING, LLC
MOSA-S010 PIPELINE PROJECT
DODDRIDGE COUNTY
WEST VIRGINIA

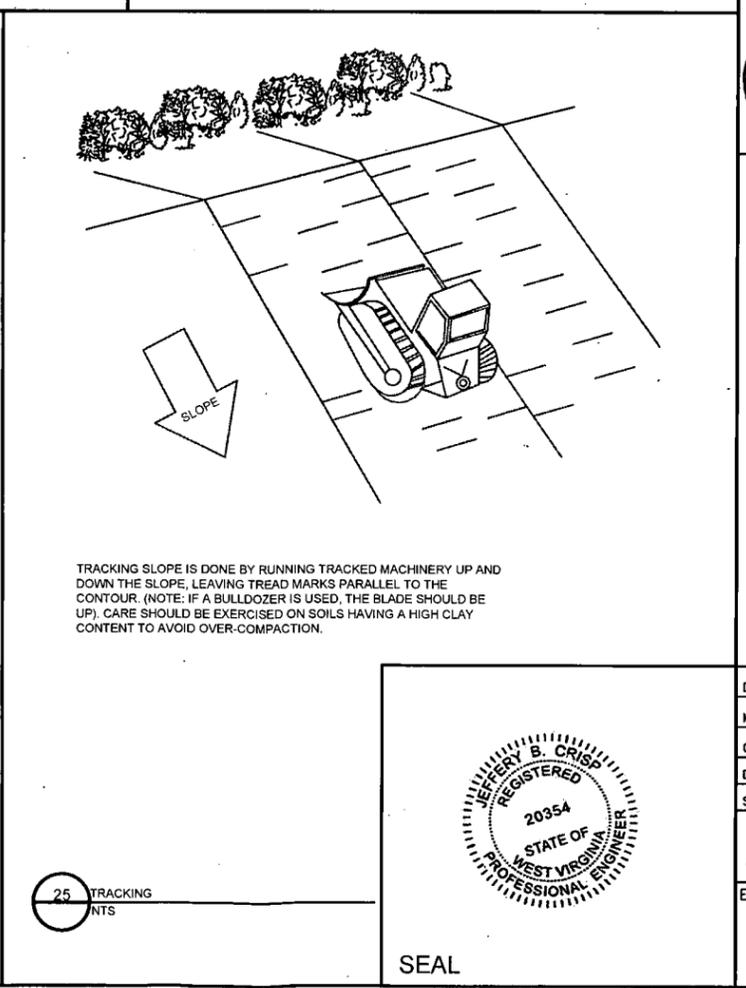
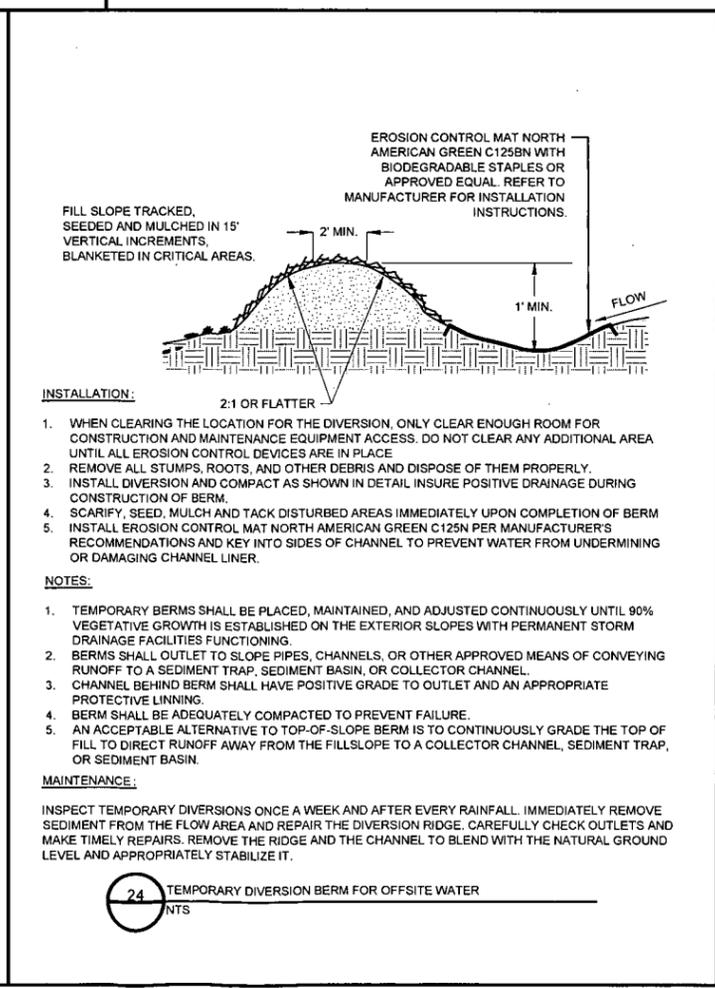
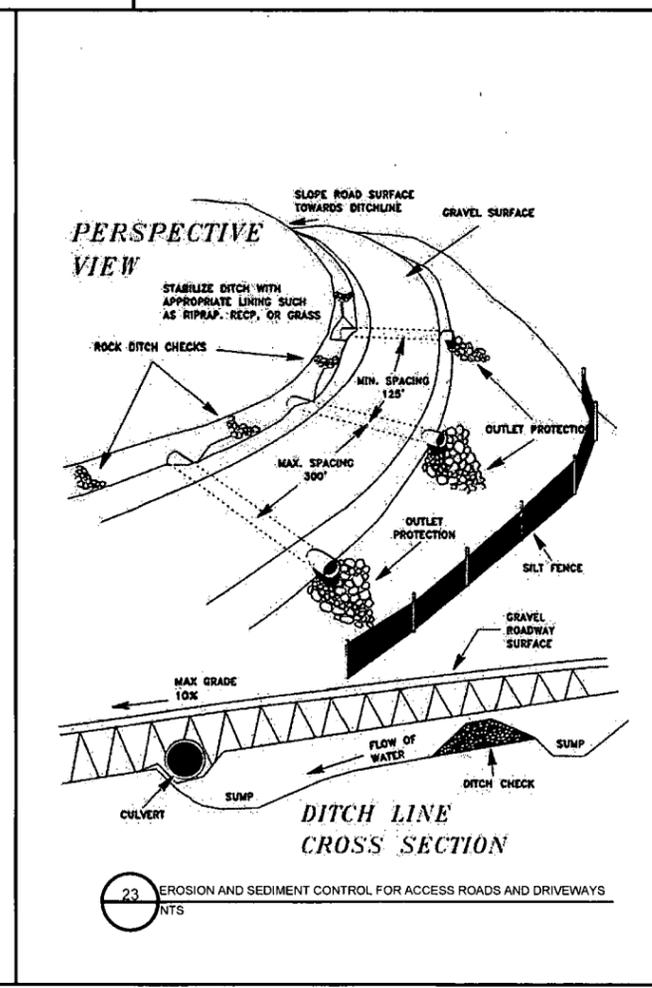
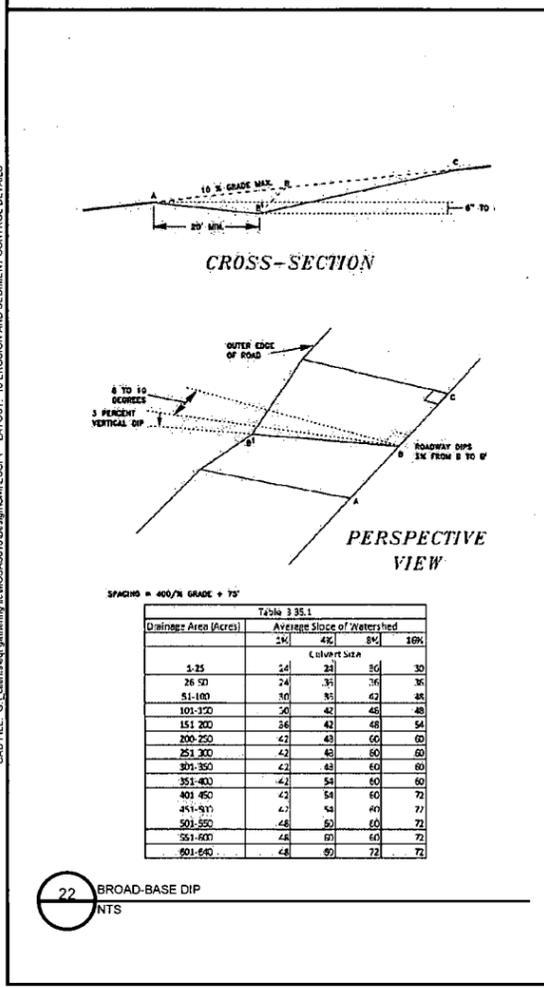
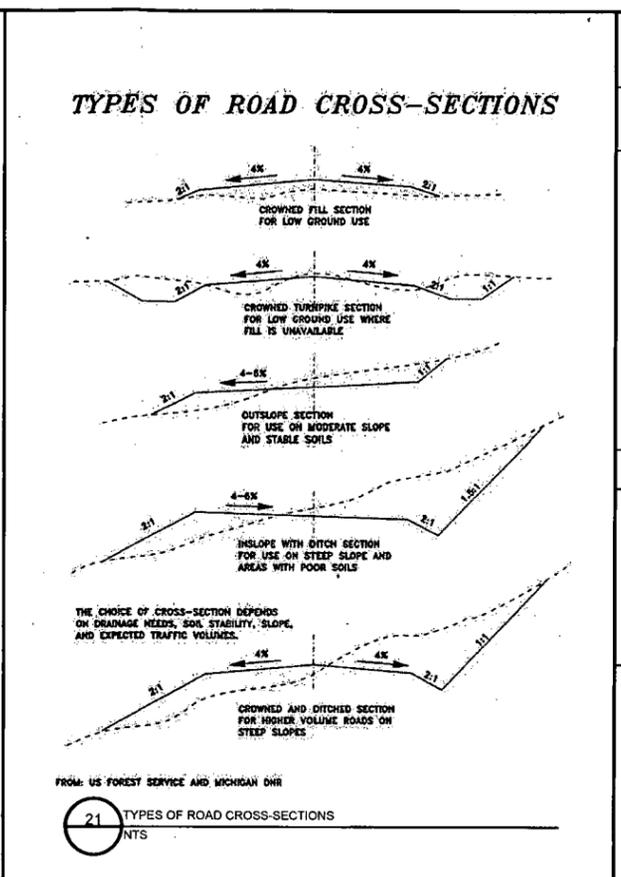
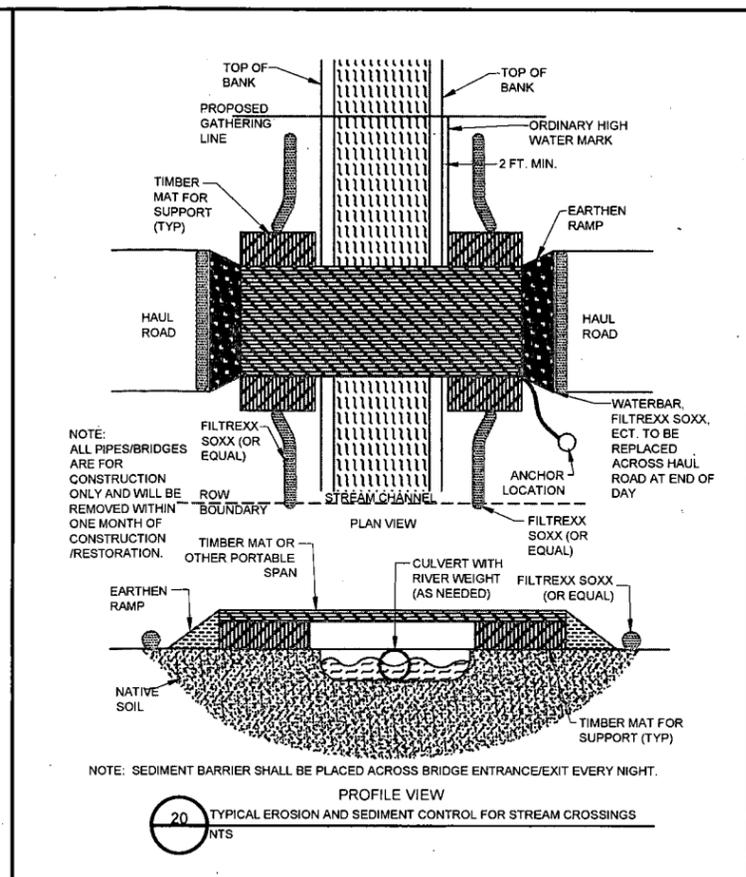
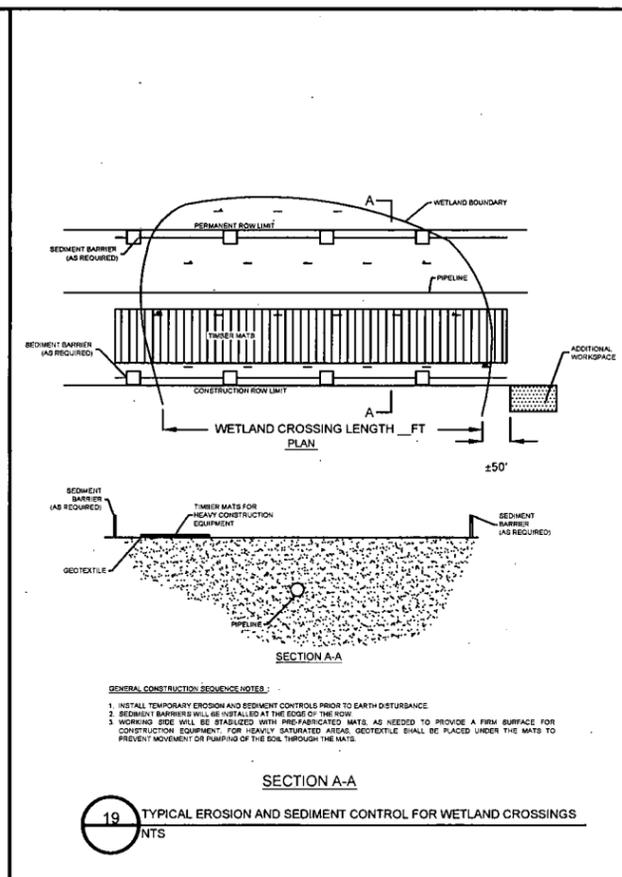
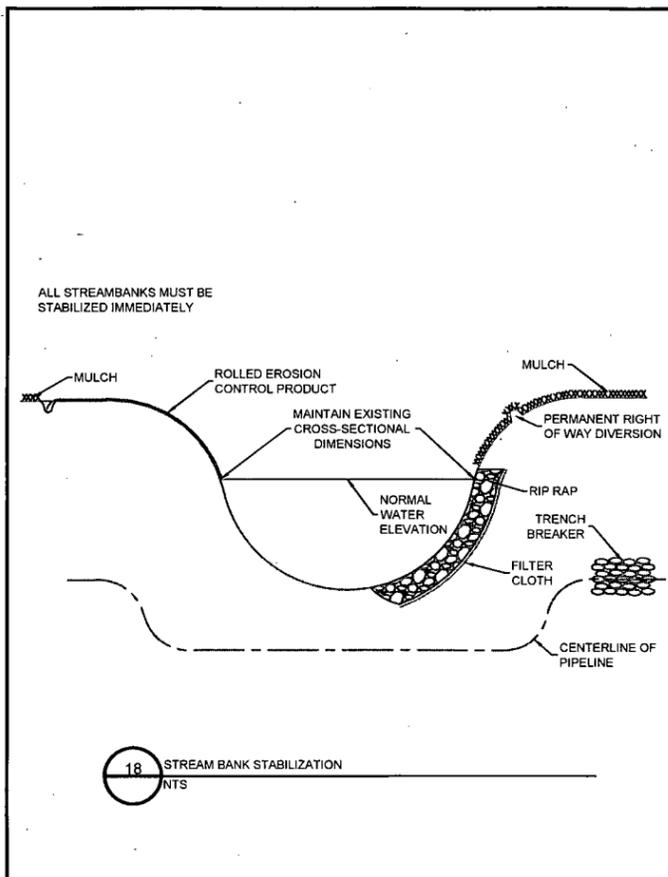
DESIGNED BY: MDV
MODIFIED BY:
CHECKED BY: MDI
DATE: 10-02-2014
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
ESCP



SEAL

ATTACHED IMAGES: Images, Road Details, Images, Shaded File, Stock Detail, If ATTACHED XREFS: Xref, Aref, MOSA_TB_ESCP, CAD FILE: C:\Users\jgathering\Documents\ESCP_LAYOUT_17_EROSION AND SEDIMENT CONTROL DETAILS

PLOTTED: 02 Oct 2014, 12:52pm, nvranges



KLEINFELDER
Bright People. Right Solutions.
230 EXECUTIVE DRIVE, SUITE 122
GRANBERRY TOWNSHIP, PA 16066
PH. 724-772-7075 FAX. 724-772-7072
www.kleinfelder.com

MOA-S010 PIPELINE PROJECT
EROSION AND SEDIMENT CONTROL DETAILS

DESIGNED BY: MDV
 MODIFIED BY:
 CHECKED BY: MDI
 DATE: 10-02-2014
 SCALE:
 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 0 0.5 1.0 1.5 2.0
 ESCP

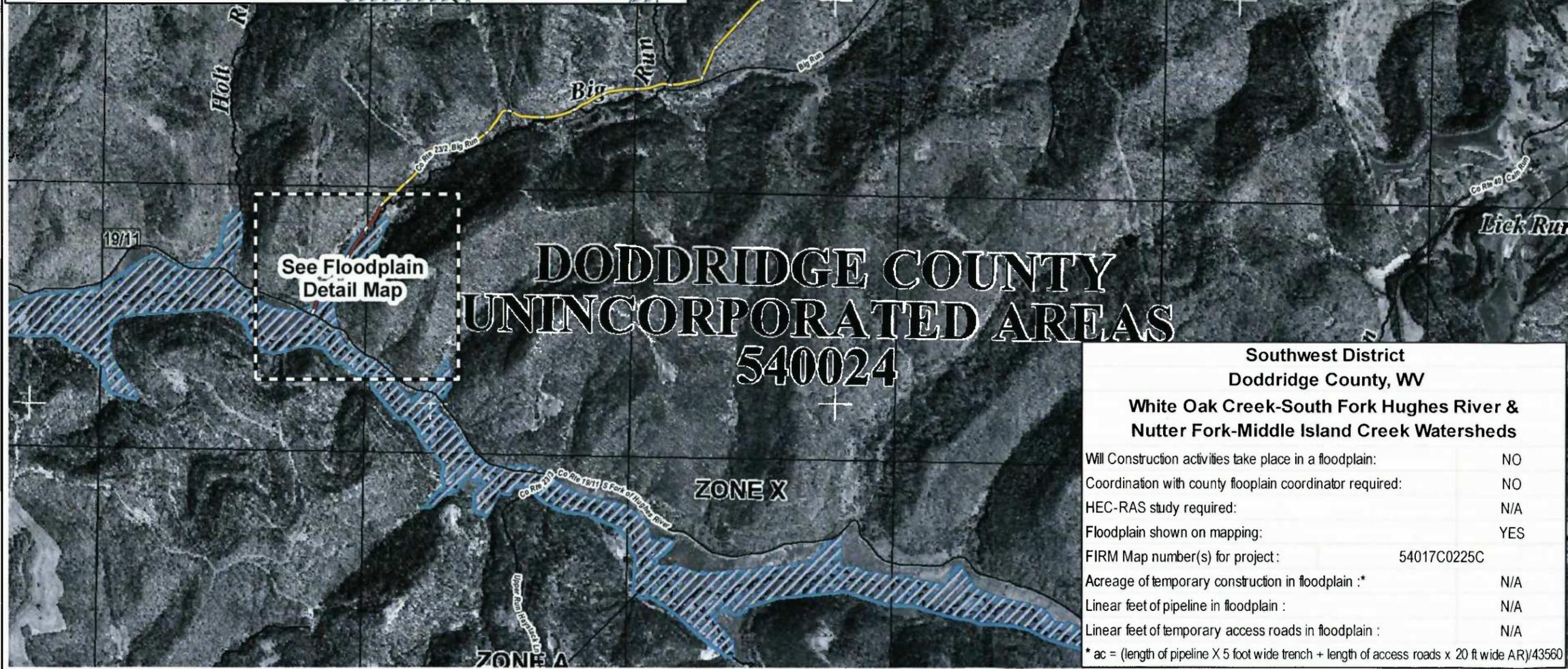
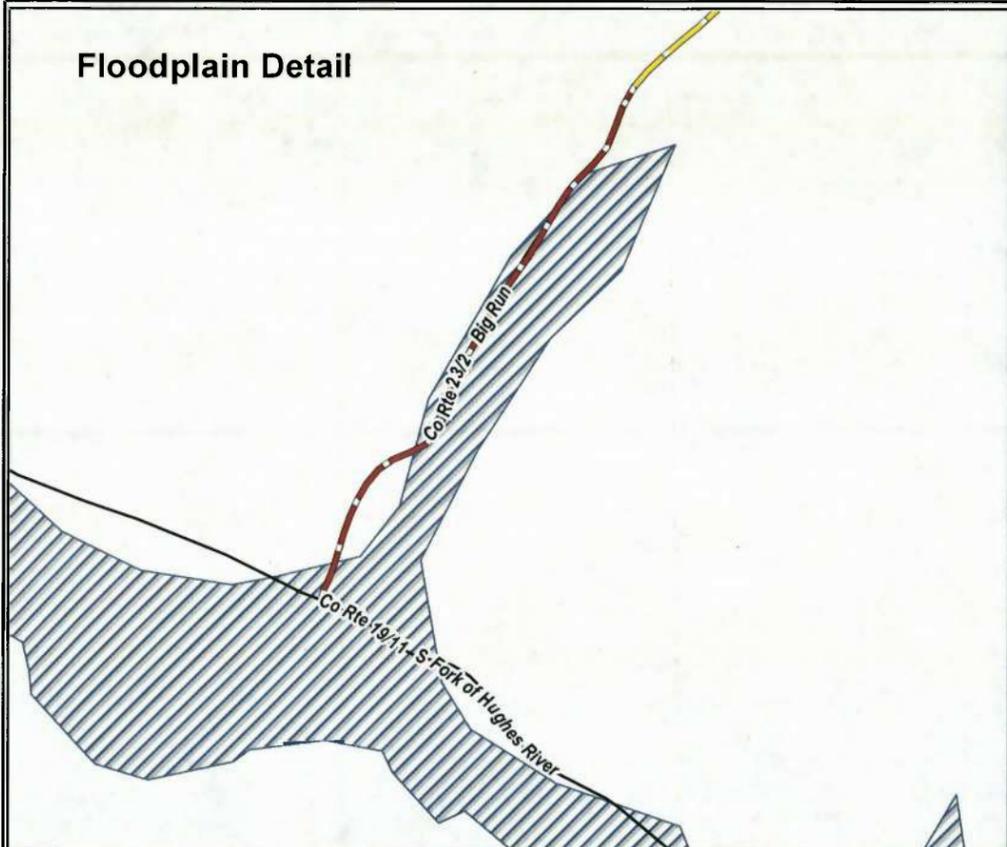
18
18 of 19 sheets

WEST VIRGINIA
DODDRIDGE COUNTY

ACAD FILE: MOA_S010_ESCP_CONSTRUCTION DETAILS.dwg
 PLOT FILE: 20150659
 PLOT DATE: 02 Oct 2014, 12:52pm, nvtanhes

ATTACHMENT C
FLOODPLAIN MAP

Floodplain Detail



**DODDRIDGE COUNTY
UNINCORPORATED AREAS
540024**

**Southwest District
Doddridge County, WV**

White Oak Creek-South Fork Hughes River & Nutter Fork-Middle Island Creek Watersheds

Will Construction activities take place in a floodplain:	NO
Coordination with county floodplain coordinator required:	NO
HEC-RAS study required:	N/A
Floodplain shown on mapping:	YES
FIRM Map number(s) for project:	54017C0225C
Acreage of temporary construction in floodplain :*	N/A
Linear feet of pipeline in floodplain :	N/A
Linear feet of temporary access roads in floodplain :	N/A

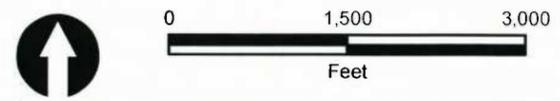
* ac = (length of pipeline X 5 foot wide trench + length of access roads x 20 ft wide AR)/43560

**MOSA-S010 Pipeline Project
FEMA FIRM 54017C0225C
EQT Gathering, LLC
Doddridge County, WV**



- Legend**
- Proposed Alignment (0.89 mi)
 - Access Road (No Upgrades Required - 1.39 mi)
 - Access Road (Upgrades Required - 1.67 mi)
 - Existing Road
 - 100 Year Flood Zone

PROJECT #: 20150659.001A
 DRAWN: 9/8/2014 PRINTED: 9/29/2014
 DRAWN BY: GHB
 CHECKED BY: MA
 FILE PATH:
 G:\GIS\PROJECTS\EQT\Midstream\MOSA-S010-####MXD\MOSA-S010_Floodplain.mxd



The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. KleinFelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.





DIVISION OF NATURAL RESOURCES

324 Fourth Avenue, Room 200
South Charleston WV 25303-1228
TDD (304) 558-1439
TDD 1-800-354-6087
Fax (304) 558-6048
Telephone (304) 558-3225

Earl Ray Tomblin
Governor

Frank Jezioro
Director

September 24, 2014

Division of Natural Resources
LICENSE AND RIGHT OF ENTRY

Re: P-14-VI/09-1287

EQT Gathering, L.L.C.
303 Sand Cut Road
Clarksburg, WV 26301-

Dear Sir or Madam:

The Division of Natural Resources hereby grants to you for a term of ten (10) years, from the date hereof, a License and Right of Entry to construct, replace, cover, repair, operate, maintain, use and remove a twelve inch (12") steel natural gas pipeline (MOSA S-10) along Bluestone Creek, Union District, Doddridge County, West Virginia, as shown located and highlighted in red on the map attached hereto as Exhibit A.

This License and Right of Entry is subject to the following terms and conditions:

High Quality Streams (HQS) as listed in the West Virginia Division of Natural Resources High Quality Stream Sixth Edition published in 2001 and for any trout streams and direct tributaries of trout streams:

- Directional boring is the only method permitted during the fish spawning season. Fish spawning season for warmwater streams runs from April 1st through June 30th. Trout spawning season runs from October 1st through April 30th.
- Other dry ditch methods (pump around, flume or cofferdam) as described in WVDEP water resources manual (published 2006) on page 3.21-4 may be used outside of spawning seasons.
- Each crossing that utilizes dry ditch methods must be completed in 2 consecutive work days.

Non-high quality stream:

- Directional boring or other dry ditch methods (pump around, flume or cofferdam) as described in WVDEP water resources manual (published 2006) on page 3.21-4 may be used at all times during fish spawning season from April 1st through June 30th. This eliminates the need for spawning season restrictions.
- Crossings using methods other than directional boring. Must be completed in 1 work day.
- Only ephemeral/intermittent streams that are dry can be trenched.

EQT Gathering, L.L.C.
P-14-VI/09-1287
Page 2
September 24, 2014

Bank Stabilization

All bank stabilization projects must begin immediately upon completion of utility line crossing and be completed within 24 hours of completion of utility line crossing.

Freshwater Mussels

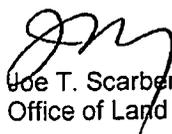
Mussel surveys on streams with known US Fish and Wildlife listed or candidate endangered species will be required if directional boring is not an option. Contact Janet Clayton of the WVDNR Wildlife Diversity Program for information concerning mussels at 304-637-0245.

For further assistance, contact the appropriate WVDNR District Fisheries Biologist.
District 1 304-825-6787 District 2 304-822-3551 District 3 304-924-6211
District 4 304-256-6947 District 5 304-675-0871 District 6 304-420-4550

The issuance of this License and Right of Entry by the Division of Natural Resources does not preclude the necessity to obtain a permit from the Corps of Engineers or any other state or federal permits which may be required by law, nor does this License and Right of Entry negate the need to comply with the West Virginia Water Pollution Control Act and/or the State Environmental Quality Board's administrative regulations, applicant is also responsible for determining if the proposed activity is located within an identified flood plain and it is the applicant's responsibility for contacting the local governmental agency in charge of that program and obtaining a flood plain development permit for it. This License and Right of Entry does not grant any rights or privileges, or permission to enter upon or to cross the property of any other person, nor is permission granted to remove any material that lies upon the property of any other persons. Work should be completed in as brief a period as possible and within one year from the date of this letter. In the event you fail or refuse to comply with any of the terms or conditions herein, this License and Right of Entry will be canceled and considered null and void and the Division will reject further applications.

Your check in the amount of \$175.00 is now due and payable to the Division of Natural Resources covering the (10) ten-year fee of this agreement. Your agreement will be effective upon receipt of your payment in full.

Sincerely,



Joe T. Scarberry, Supervisor
Office of Land and Streams

JTS:cb

attachment

pc: DNR Fish Biologist
Jeremy Bandy, Environmental Enforcement
DNR Conservation Officers

Exhibit A

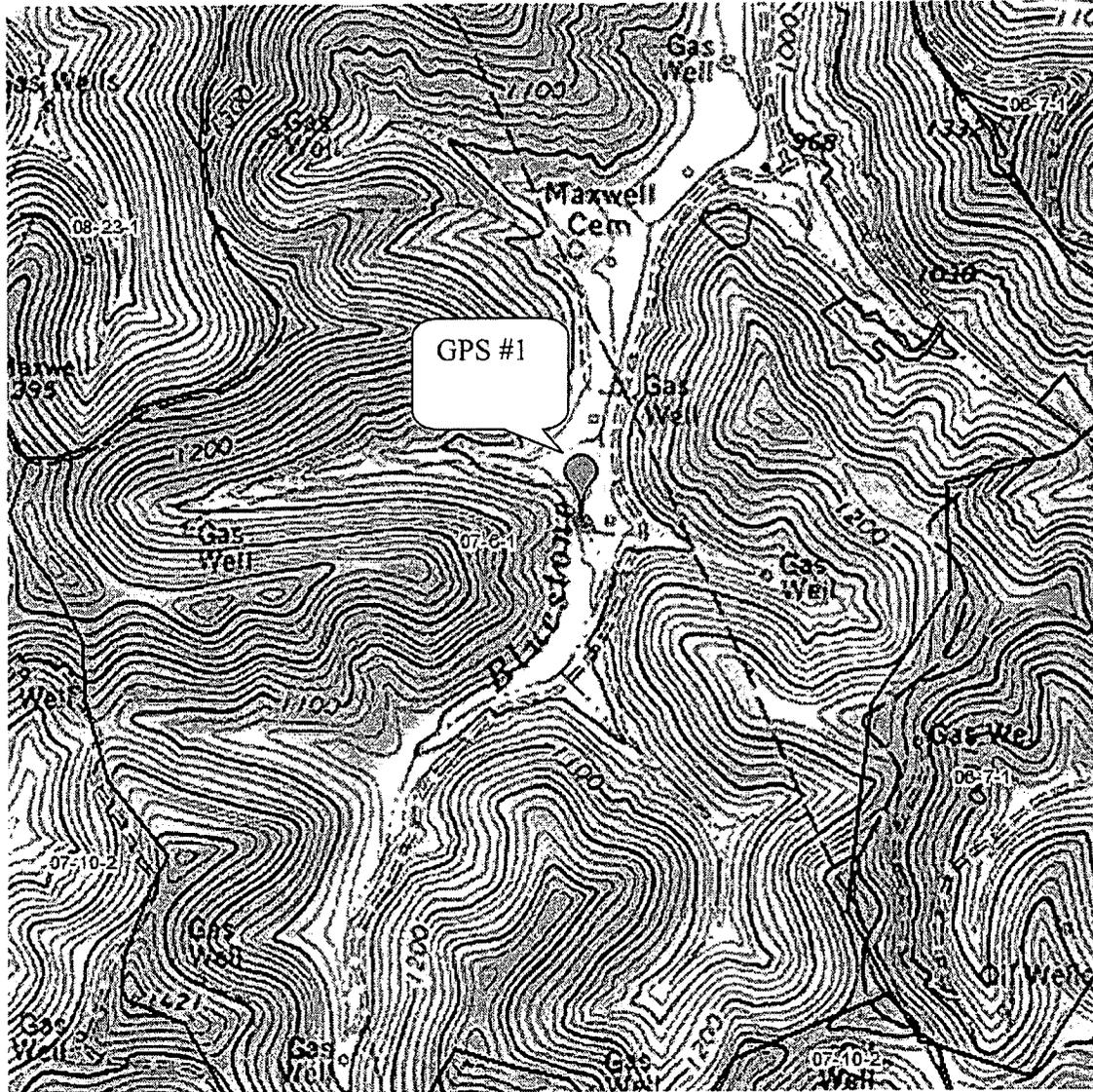


EXHIBIT "A"

EQT Gathering L.L.C.

#1 MOSA S-010

Bluestone Creek

Union District, Doddridge County

GPS Location

1. Decimal Degrees Lat: 39.21945

Lon: -80.76773



United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241



Huntington District - No Effect/Not Likely to Adversely Affect Concurrence Form

Contact Name: Heather Krepsik

Email Address or Fax Number: hkrepsik@langan.com

Project Name & Location: MOSA-5010 Pipeline, Doddridge County, WV

Date of Letter Request: September 3, 2014

This is in response to your letter requesting threatened and endangered species information in regard to the proposed project listed above. These comments are provided pursuant to the Endangered Species Act (ESA, 87 Stat. 884, as amended; 16 U. S. C. 1531 *et seq.*).

We have made a determination that the project _____ will have no effect/ is not likely to adversely affect Federally-listed endangered or threatened species. Therefore no biological assessment or further section 7 consultation under the ESA is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed and proposed species become available, this determination may be reconsidered.

Definitive determinations of the presences of waters of the United States, including wetlands, in the project area and the need for permits, if any, are made by the U.S. Army Corps of Engineers. They may be contacted at Huntington District, Regulatory Branch, 502 Eighth Street, Huntington, West Virginia, 25701, telephone (304) 399-5710.

Trener Lennon 11/13/14
Reviewer's signature and date

Steve Adomick 11/17/14
Field Supervisor's signature and date



DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

REPLY TO
ATTENTION OF

Regulatory Division
Energy Resources Branch
LRH-2014-00906-LKR-UNTs of/and Bluestone Creek and Big Run

DEC 03 2014

PRELIMINARY JURISDICTIONAL DETERMINATION AND
NATIONWIDE PERMIT NO. 12 VERIFICATION

Ms. Megan Landfried
EQT Gathering, LLC
115 Professional Place
Bridgeport, West Virginia 26330

Dear Ms. Landfried:

I refer to the Pre-Construction Notification (PCN), received in this office on October 3, 2014, requesting authorization under Nationwide Permit (NWP) 12, to discharge dredged and/or fill material into waters of the United States (U.S.) in association with the proposed MOSA-S010 Pipeline project. The proposed project will include the discharge of dredged and/or fill material into 54 linear feet (lf) of streams and 0.001 acres (ac) of wetland, as detailed on Table 1 below. On-site waters flow into Bluestone Creek, an indirect tributary of the Ohio River, a traditional navigable water of the U.S. Additionally, on-site waters flow into Big Run, an indirect tributary of the Little Kanawha River, a traditional navigable water of the U.S. The proposed project will be located approximately 4.5 miles east of Oxford, Doddridge County, West Virginia (39.208936° N, 80.782330° W). The PCN has been assigned the following file number: LRH-2014-00906-LKR-UNTs of/and Bluestone Creek and Big Run. Please reference this number on all future correspondence related to this project.

The U.S. Army Corps of Engineers (Corps) authority to regulate waters of the U.S. is based on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act requires a Department of the Army (DA) permit be obtained prior to placing dredged or fill material into waters of the U.S., including wetlands. Section 10 of the Rivers and Harbors Act of 1899 requires a DA permit be obtained for any work in, on, over or under a navigable water.

Preliminary Jurisdictional Determination

In the PCN received in this office on October 3, 2014, eighteen (18) potential waters of the U.S. were identified within the project area, totaling 5,987 lf of stream channel and 0.906 ac of wetland. This office has determined these may be waters of the U.S. in accordance with the Regulatory Guidance Letter (RGL) for Jurisdictional Determinations (JDs) issued by the Corps on June 26, 2008 (RGL No. 08-02). As indicated in the guidance, this Preliminary JD (PJD) is non-binding and cannot be appealed (33 C.F.R. 331.2) and only provides a written indication that

waters of the U.S., including wetlands, may be present on-site. You have declined to exercise the option to obtain an approved JD in this instance. However, for the purposes of the determination of impacts, compensatory mitigation, and other resource protection measures for activities that require authorization from this office, the aquatic resources identified above will be evaluated as if they are waters of the U.S.

Enclosed please find two copies of the PJD form. If you agree with the findings of this PJD and understand your options regarding the same, please sign and date one copy of the PJD form and return it to this office within 30 days of receipt of this letter. You should submit the signed copy via email to Justin.M.Elkins@usace.army.mil or to the following address:

U.S. Army Corps of Engineers
Huntington District
Attn: Justin Elkins (2014-00906), Energy Resource Branch
502 8th Street
Huntington, West Virginia 25701

Nationwide Permit 12

This project has been reviewed in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Based on the information provided, it has been determined this project will not involve activities subject to the requirements of Section 10. However, this project will involve activities subject to the requirements of Section 404. Therefore, it will require a DA authorization.

In the submitted PCN materials received in this office on October 3, 2014, you have requested a DA authorization to discharge dredged and/or fill material into 54 lf of streams and 0.001 ac of wetland, associated with three single and complete crossings, for the construction of the pipeline and associated access road, as described on Table 1 (attached). The information submitted indicates the project will include the installation of 0.89 miles of pipeline.

Based on the provided information, it has been determined the proposed discharge of dredged and/or fill material into waters of the U.S. associated with each of the three single and complete projects, in conjunction with the construction of the MOSA-S010 Pipeline project meets the criteria for Nationwide Permit Number (NWP) 12 (enclosed) under the February 21, 2012 Federal Register, Reissuance of Nationwide Permits (77 FR 10184) provided you comply with all terms and conditions of the enclosed material, the enclosed special conditions, and the 401 Water Quality Certification (WQC) issued by the Ohio Environmental Protection Agency (Ohio EPA) on March 30, 2012.

In view of the above, your project is authorized subject to the terms and conditions of the enclosed material. It is your responsibility to ensure your work conforms to all of the conditions listed within the enclosed material, including the attached special conditions. Please be aware this NWP verification does not obviate the requirement to obtain any state or local assent required by law for the activities.

This verification is valid until the expiration date of the NWP's, unless the NWP authorization is modified, suspended, or revoked. The verification will remain valid if the NWP authorization is reissued without modification or the activity complies with any subsequent modification of the NWP authorization. All of the existing NWP's are scheduled to be modified, reissued, or revoked on March 18, 2017. Prior to this date, it is not necessary to contact this office for re-verification of your project unless the plans for the proposed activity are modified. Furthermore, if you commence or under contract to commence this activity before March 18, 2017, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Enclosed is a copy of the NWP to be kept at the project site during project activities. Upon completion of the work, the enclosed certification must be signed and returned to this office. If you have any questions concerning the above, please contact Justin Elkins of the Energy Resources Branch at (304) 399-5271 or by email at justin.m.elkins@usace.army.mil.

Sincerely,



Adam Fannin
Regulatory Project Manager
Energy Resources Branch

Enclosures

Copy furnished (w/o enclosures):

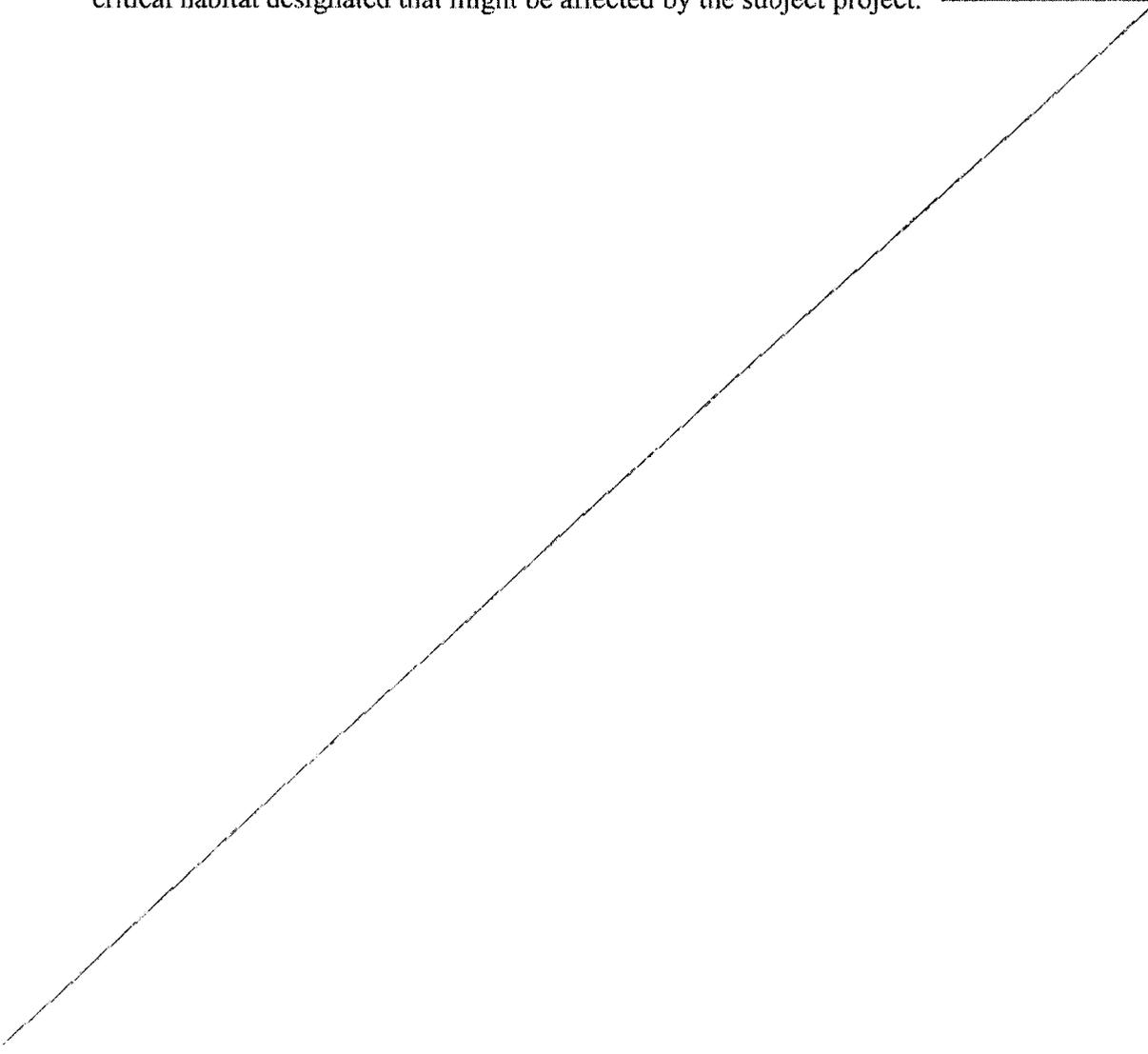
Ms. Wilma Reip
West Virginia Department of Environmental Protection
601 57th Street
Charleston, West Virginia 25304

Mr. Matthew Albright
Kleinfelder, Inc.
230 Executive Drive, Suite 122
Cranberry Township, PA 16066

Table 1- Authorized discharge of dredged and/or fill material into waters of the United States associated with MOSA-S010 Pipeline project. LRH-2014-00906-LKR-UNT's of/and Bluestone Creek and Big Run

Waters ID	Flow Regime/ Cowardin Classification	Fill Length of Stream (lf)	Fill Area of Wetland (acre)	Regulated Discharge of Fill Material Activity
Stream 6	Perennial	6	NA	Temporary Pipeline Crossing
Stream 6	Perennial	48	NA	Temporary Access Road - Culvert
Wetland 9	PEM	NA	0.001	Temporary Access Road - Culvert
Totals		54	0.001	

SPECIAL CONDITIONS
MOSA-S010 Pipeline Project
Nationwide Permit #12 Verification
LRH--2014-00906-LKR-UNTs of/and Bluestone Creek and Big Run

1. Should new information regarding the scope and/or impacts of the project become available that was not submitted to this office during our review of the proposal, the permittee shall submit written information concerning proposed modification(s) to this office for review and evaluation, as soon as practicable.
 2. Section 7 obligations under Endangered Species Act must be reconsidered if new information reveals impacts of the project that may affect federally listed species or critical habitat in a manner not previously considered, the proposed project is subsequently modified to include activities which were not considered during Section 7 consultation with the United States Fish and Wildlife Service, or new species are listed or critical habitat designated that might be affected by the subject project.
- 



DIVISION OF NATURAL RESOURCES
Wildlife Resources Section
Operations Center
P.O. Box 67
Elkins, West Virginia 26241-3235
Telephone (304) 637-0245
Fax (304) 637-0250

Earl Ray Tomblin
Governor

Frank Jezioro
Director

September 19, 2014

Ms. Heather Krepsik
Kleinfelder, Inc.
230 Executive Drive, Suite 122
Cranberry Township, PA 16066

Dear Ms. Krepsik:

We have reviewed our files for information on rare, threatened and endangered (RTE) species and sensitive habitats for the area of the proposed MOSA-S010 Pipeline project in Doddridge County, WV.

We have no known records of any RTE species or sensitive habitats within the project area. The Wildlife Resources Section knows of no surveys that have been conducted in the area for rare species or rare species habitat. Consequently, this response is based on information currently available and should not be considered a comprehensive survey of the area under review.

The information provided above is the product of a database search and retrieval. This information does not satisfy other consultation or permitting requirements for disturbances to the natural resources of the state, and further consultation may be required. Additionally, any concurrence requirements for federally listed species must come from the US Fish and Wildlife Service.

Thank you for your inquiry, and should you have any questions please feel free to contact me at the above number, or barbara.d.sargent@wv.gov. Enclosed please find an invoice.

Sincerely,


Barbara Sargent
Environmental Resources Specialist
Wildlife Diversity Unit

enclosure

S:\Monthly\Barb\Invoices\Kleinfelder.doc

	Applicant: EQT GATHERING LLC Reference ID: MOSA-S010 Pipeline Project (10/02/2014) Status: ERIS - Closed - Issued	Type: New NPDES/State Storm Water Construction #1 Permit ID: WVR310403 Printed: Dec. 03, 2014 11:30 AM
---	--	---

Sections 1 - 3: Project Information

1. Project Name: MOSA-S010 Pipeline Project

2. The applicant name should be the company name (if applicable) and/or individual name (if applicable) that this permit will be issued to. Please assure you've chosen applicant name correctly. If you do not see appropriate company name, you should immediately stop and email Mavis Layton at DEP at Mavis.L.Layton@wv.gov or contact her at (304) 926-0499 Ext. 1025.

Applicant's Name: EQT GATHERING LLC

Federal Employer Identification Number: 20-2752042

Attention: Megan Landfried

Address: 625 LIBERTY AVE

City: PITTSBURGH State: PA Postal Code: 15222

Telephone No.: 304-848-0061 (###-###-####) Fax Number: 304-848-0040 (###-###-####)

Email Address: MLandfried@eqt.com Country: United States of America

Same As Applicant's Address? : No Contractor Known? No

3. Contractor:

Attention:

Address:

City: State: WV Postal Code:

Telephone No.: (###-###-####) Fax Number: (###-###-####)

Email Address: Country: United States of America

Section 4: Preparer's Information

4. Preparer's Name: Matt Albright

Company's Name: Kleinfelder, Inc.

Address: 230 Executive Drive

Suite 122

City: Cranberry Township State: PA Postal Code: 16066

Telephone No.: 724-831-5101 (###-###-####) Fax Number: 724-772-7072 (###-###-####)

Email Address: malbright@kleinfelder.com Country: United States of America

Sections 5 - 8: Site Information

5. Acres disturbed: 17.85

Rain Fall Zone: 1 Precipitation Zones

Application Fee: 1,170.00

6. Latitude:

Degrees: 39 Minutes: 12 Seconds: 37.3788 (ss.ssss)

Longitude:

Degrees: 80 Minutes: 46 Seconds: 27.3504 (ss.ssss) Interactive Mapper

Geospatial Method: Digital/Manual Interpolation from a map

Datum: NAD83 UTM Zone:

UTM Northing: UTM Easting:

Topographic Map with site located:

7. Facility Address: Not Applicable

Nearest Town: New Milton

County Name: Doddridge

County Route: 23/2 (Franklin Lane)

Postal Code: 26411

8. Name of Immediate Receiving Stream Unnamed Tributary of

Bluestone Creek tributary of tributary of

tributary of tributary of

Major Basin: Little Kanawha River

Municipal System Operator (if applicable):

Directions to Site:

From New Milton, WV: Head northwest on Meathouse Fork toward County Route 25/2 for approximately 1.2 miles. Turn left onto WV-18S and continue for approximately 3.0 miles. Turn right on to Porto Rico Road and travel for approximately 0.7 miles. Take the first right onto Maxwell Ridge and continue for approximately 3.4 miles. Make a slight left onto Big Run and continue for approximately 0.2 miles. Make another slight left to stay on Big Run. The access road entrance will be on the left after approximately 0.6 miles.

Sections 9 - 11: Description of Project, Estimates, and Cubic Yards

9. Project Description:

EQT Gathering, LLC (EQT) proposes to construct the 0.89-mile, 12-inch diameter MOSA-S010 steel natural gas pipeline in Doddridge County, West Virginia (WV). The proposed Project will encompass approximately 17.85 acres. The proposed Project will tie into a proposed meter site to the east and the existing Saturn Pipeline System to the west. The purpose of the Project is to establish pipeline connections required for the gathering of natural gas.

10. Estimated Start and Completion Dates for Project:

November 2014 to July 2015

11. Cubic Yards of Excavation (Cut/Fill) and Waste/Borrow Sites (Attached Soils Report):

Total excavation = 138 CY (Based on 4,710 LF of 12 Diameter Pipe). Due to the minimal amount of excavation required along the length of the pipeline, soil stockpiles should not be required and excavated material will be spread along uphill side of pipeline trench. If stockpiles are required they will be placed upslope from E&SC BMPs.

Sections 12 - 14: Relative Time Line, Sediment Controls, and Sequence

12. Relative Time Line of Construction Activities:

Tree Clearing November 15, 2014 to December 15, 2014
 Erosion & Sediment Controls December 15, 2014 to January 5, 2015
 Grubbing January 5, 2015 to February 1, 2015
 Pipeline Installation February 1, 2015 to May 1, 2015
 Testing May 1, 2015 to June 1, 2015
 Stabilization June 1, 2015 to July 31, 2015

Note: If any of the following conditions apply, submit a notarized, signed statement for billing so that the project can be sent out to public notice

- 1 Grading phase of construction will last for 1 year or longer
- 2 Disturbance of 100 acres or more
- 3 Discharge to or upstream of Tier 3 water

See instructions for detail and notice process

No Yes If yes, you must fill out the Statement For Billing Form.

13. Narrative description of Erosion and Sediment Controls:

Compost Filter Sock and Silt Fence- Shall be installed adjacent to road crossing and waterbodies to prevent siltation. Will be placed at down slope edge of construction ROW to filter sediment laden stormwater before it is discharged from the site.

Right of Way Diversion- Shall be installed at increments across sloped areas of the construction ROW to reduce erosion and flow length of runoff. Will be angled to outlet to stable/vegetated area.

Trench Breaker or Plug- Placed at increments in pipeline trench to prevent gullying erosion when trench is open and water piping/blowouts along the pipeline after the trench has been backfilled.

Erosion and Sediment Control for Wetland Crossings- Details in the attached SWPPP have been provided that minimize impacts to wetlands during construction. E&SC measures will be used at the wetland to prevent siltation of stream and various crossing methods will reduce impacts.

Temporary and Permanent Seeding- Shall be applied immediately after construction has ceased in an area to quickly stabilize all disturbed areas and reduce sediment laden runoff.

14. Sequence of Construction:

See Section 3 of the attached SWPPP and Sheet 2 of the E&SC Plans (Appendix B of SWPPP) for sequence of construction.

Sections 15 - 17: Site Maps and Storm Water Management

15. Detailed Site Map(s) of Erosion and Sediment Controls:(Attach)

16. Site Map of the Final Conditions Showing the Stormwater Management Facilities (Attach):

17. Narrative Description of the Final Storm Water Management and Pollution Prevention:

-See attached Appendix B of SWPPP for calculations and permanent control measures.

-Due to the construction of one permanent access road, there will be a minor increase in impervious area. The permanent access road will be graded to follow existing drainage patterns, as will the rest of the project. Due to the size of the project, this small increase in impervious area will have a negligible effect; therefore no permanent stormwater management facilities will be required. Permanent vegetation and site grading (as needed) will be used to restore all post-development conditions to their pre-developed state, except where the permanent access road will be constructed.

Section 18: Public Notice Sign

18. PUBLIC NOTICE SIGN (SEE INSTRUCTIONS AND SECTION G.4.b.6 OF THE GENERAL PERMIT). ALL APPLICANTS ARE REQUIRED TO POST A PUBLIC NOTICE SIGN ONSITE WITHIN 24 HOURS OF SUBMITTED APPLICATION. ATTACH SITE SPECIFIC TEMPLATE.

Information: Supplemental Information

A. Supplemental Information: (If none click Section Complete)



Certification: Signature Page

BY COMPLETING AND SUBMITTING THIS APPLICATION, I HAVE REVIEWED AND UNDERSTAND AND AGREE TO THE TERMS AND CONDITIONS OF THE GENERAL PERMIT ISSUED ON DECEMBER 4, 2012. I UNDERSTAND THAT PROVISIONS OF THE PERMIT ARE ENFORCEABLE BY LAW. VIOLATION OF ANY TERM AND CONDITION OF THE GENERAL PERMIT AND/OR OTHER APPLICABLE LAW OR REGULATIONS 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 FORM AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRING OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.
OFFICIAL SIGNATURE

Print Name: Megan Landfried
Print Title: Senior Environmental Coordinator
Date: 10/2/2014

PRIOR TO FILING THIS APPLICATION, YOU MAY WISH TO OBTAIN A COPY OF THE LEGISLATIVE RULES OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, TITLE 47, SERIES 26, WATER POLLUTION CONTROL PERMIT FEE SCHEDULE IN ORDER TO DETERMINE THE APPROPRIATE PERMIT APPLICATION FEE REQUIRED TO ACCOMPANY YOUR SUBMISSION OF THIS APPLICATION. YOU CAN OBTAIN A COPY OF THE REGULATION FROM THE SECRETARY OF STATE'S OFFICE, STATE CAPITOL BUILDING, CHARLESTON, WV 25305. HOWEVER, YOU MAY WISH TO USE THE TABLE FOUND IN ITEM V. OF THE ATTACHED INSTRUCTIONS.

YOUR CHECK OR MONEY ORDER FOR THE APPROPRIATE APPLICATION FEE MUST BE MADE PAYABLE TO THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
ALL SPILLS OR ACCIDENTAL DISCHARGES ARE REQUIRED TO BE REPORTED IMMEDIATELY TO THE EMERGENCY RESPONSE SPILL ALERT SYSTEM TOLL FREE TELEPHONE NUMBER 1-800-642-3074. CALLS FROM OUT OF STATE SHOULD BE MADE TO 304-348-8899.

Please Print, Sign, Scan and attach this document rather than mailing as a wet ink signature is no longer required.



The Culture Center
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300

Randall Reid-Smith, Commissioner

Phone 304.558.0220 • www.wvculture.org
Fax 304.558.2779 • TDD 304.558.3562

EEO/AA Employer

November 18, 2014

Mr. C. Michael Anslinger
Senior Vice-President
Cultural Resource Analysts, Inc.
3556 Teays Valley
Hurricane, WV 25526

RE: MOSA-S010 Pipeline Project
FR# 14-1155-DO-1

Dear Mr. Anslinger:

We have reviewed the abbreviated technical report that was submitted for the above mentioned project to determine its effects to cultural resources. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

According to the report, a Phase I archaeological survey, consisting of shovel probe excavation and pedestrian reconnaissance, was conducted within the proposed project area in the vicinity of Bluestone Run. Steep slope was observed in portions of the area surveyed. No rock shelters or chert quarries were identified. Intact soils were observed in the shovel probes. No cultural materials were recovered. As a result, we concur that with the recommendation that the proposed project will have no effect on historic properties. We also concur that no further archaeological investigations are necessary for the areas that were surveyed or for the larger project area in general. However, if intact archaeological deposits or cemeteries are encountered while the pipeline is being constructed, please cease all activity in the area of discovery and contact this office immediately.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the permit conditions, please contact Lora A Lamarre-DeMott, Senior Archaeologist, at (304) 558-0240.*

Sincerely,

A handwritten signature in cursive script that reads "Susan M. Pierce".

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/LLD

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
14-293

was published in said paper for *2*
successive weeks beginning with the issue
of *October 14th* 2014 and
ending with the issue of

October 21st 2014 and

that said notice contains *189*

WORD SPACE at *115* cents a word

amounts to the sum of \$ *21.74*

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

\$ *16.31*
and each publication thereafter

\$ *38.05* TOTAL

EDITOR

Virginia Nicholson

SWORN TO AND SUBSCRIBED

BEFORE ME THIS THE *23rd* DAY
OF *October* 2014

NOTARY PUBLIC

Laura Adams

LEGAL ADVERTISEMENT:
Doddridge County
Floodplain Permit Application
Please take notice that on the 3rd day of October, 2014
EQT Gathering, LLC filed an application for a
Floodplain Permit to develop land located at or about:
New Milton District 39-208936N/80-782330W to
30.211547N/80-766677W Permit #14-193 MOSA-S010
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 November 6, 2014.
Delivered to the
Clerk of the County Court
118 E. Court Street, West Union, WV 26456
Beth A. Roger, Doddridge County Clerk
Edwin L. "Bo" Wriston, Doddridge County Flood Plain
Manager
10-14-2014

