Doddridge County Sheriff
Flood Plain Ordinance Fund

1068
69-217/515

DATE December 17, 2013

PAY TO THE ORDER OF THE HERALD RECORD $ 106.28

One Hundred Six Dollars and 28/100 DOLLARS

Security features included. Details on back.

CORNERSTONE BANK
West Union, WV 26456

Ralph Sandora Jr
Bethel A. Rogers
Sheriff

MEMO Inv#: 2881/2882/2883/3002 and 3007
Permit #:13-095 #13-092 #13-088 #13-099
#13-098

⑈001068⑈ ⑆051502175⑆ ⑆9649⑈91⑈

BLUE TRADITIONAL

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
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For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$ .46
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 6.11

WEST UNION WV USPS 26456 DEC - 3 2013 Postmark Here

#13-098

7011 0470 0000 8523 2822

Sent To: Shirley L Gessler
Street, Apt. No.; or PO Box No.: 9371 Big Flint Rd
City, State, ZIP+4: West Union, WV 26456

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 6.11

WEST UNION WV USPS 26456 DEC - 3 2013 Postmark Here

#13-098

7011 0470 0000 8523 2846

Sent To: Dorthella McIntyre
Street, Apt. No.; or PO Box No.: 8375 Big Flint Rd
City, State, ZIP+4: West Union, WV 26456

PS Form 3800, August 2006 See Reverse for Instructions

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

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Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 6.11

WEST UNION WV DEC - 3 2013 Postmark Here

#13-098

7011 0470 0000 8523 2839

Sent To: Dwayne E. Kelley
Street, Apt. No.; or PO Box No.: HC 67 Box 71
City, State, ZIP+4: West Union, WV 26456

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: #13-098

Dwayne E. Kelley
HC 67 Box 71
West Union, WV 26456

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Dwayne E. Kelley ☐ Agent ☑ Addressee

B. Received by *(Printed Name)* Dwayne E. Kelley
C. Date of Delivery 12-6-13

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

2. Article Number *(Transfer from service label)* 7011 0470 0000 8523 2839

UNITED STATES POSTAL SERVICE

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

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

FILED
2013 DEC -9 PM 12:19
BETTY ROGERS
DODRIDGE COUNTY CLERK
DODRIDGE COUNTY, WV

BETTY ROGERS
DODRIDGE COUNTY CLERK
ROOM 102
118 E COURT ST.
WEST UNION, WV 26456

5129799

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: #13-099

Richard M & Rosalie Clark
Route 1, Box 324A
Salem, WV 26426

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Rosalie Clark ☐ Agent ☒ Addressee

B. Received by *(Printed Name)* Rosalie Clark
C. Date of Delivery 12/4/13

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No
New 911 Address is
87 Clark Farm Drive
Salem, WV 26426

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7011 0470 0000 8523 2877

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

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

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

BETH A ROGERS
DODDRIDGE COUNTY CLERK
ROOM 102
118 E COURT ST.
WEST UNION, WV 26456

FILED
2011 DEC -5 PM 1:14
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

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: #13-098

Dorthella McIntyre
8375 Big Flint Rd
West Union, WV 26456

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Beverly Ashcraft ☒ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery 12-6-13

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

Beverly Ashcraft

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7011 0470 0000 8523 2846

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

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

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

FILED
2013 DEC -7 PM 1:44
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

BETH A ROGERS
DODDRIDGE COUNTY CLERK
ROOM 102
118 E COURT ST.
WEST UNION, WV 26456

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: #13-098

Shirley L. Gessler
9371 Big Flint Rd
West Union, WV 26456

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Shirley Gessler ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery 12-5-13

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

2. Article Number
(Transfer from service label) 7011 0470 0000 8523 2822

UNITED STATES POSTAL SERVICE

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

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

BETH A ROGERS
DODDRIDGE COUNTY CLERK
ROOM 102
118 E COURT ST.
WEST UNION, WV 26456

FILED
2013 DEC -5 PM 1:14
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

Asst. Chief Tax Deputy

Sheriff of Doddridge County

The Person paying Money into the Treasury shall forthwith file one of these Receipts with the County Clerk

Doddridge County, West Virginia

No. 1045

Date: December 5, 2013
*****Customer copy*****

Received: #13-098 kleinfelder mopa-s001 & mopa-s006 pipeline project $500.00

In Payment For: 318 Building Permits (LP)

For: 12-Flood Plain Ordinance #20 Fund

By: BH - MEH - AML
Asst. Chief Tax Deputy

W. C .Underwood Jr.
Sheriff of Doddridge County

Permit Fee Detail Sheet

EQT Gathering, LLC - MOPA-S001 and MOPA-S006 Pipeline Project

Doddridge County Floodplain Development Permit Application Fee Calculation (Inside Floodplain)	
Estimated Construction Costs	$45,000.00
Amount over $100,000	-$55,000.00
Drilling Oil and Gas Well Fee	$1,000.00
Deposit for additional charges	$1,000.00
$5 per $1,000 over $100,000	-$275.00
Amount Due with application	$1,725.00

$500.00

Legal Advertisement:

Doddridge County

Floodplain Permit Application

Please take notice that on the 3rd day of December, 2013

EQT GATHERING, LLC.

filed an

application for a Floodplain Permit to develop land located at or about: **SURFACE OWNERS: SHIRLEY GESSLER, DWAYNE KELLEY, & DORTHELLA MCINTRE**

GRANT DISTRICT BIG FLINT

WB 42/132, DB 249/546, & 251/593, TM 03/02/11, 03/5/5 & 03/6/12

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 **DECEMBER 23RD, 2013.**

Delivered to the:

Clerk of the County Court

118 E. Court Street, West Union, WV 26456.

Beth A Rogers, Doddridge County Clerk

Dan Wellings, Doddridge County Flood Plain Manager

P. 01

TRANSACTION REPORT

DEC-02-2013 MON 06:55 PM

FOR: DODDRIDGE CO. CLERK 304 873 1840

SEND

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
DEC-02	06:55 PM	93048731600	27″	1	FAX TX	OK	747	

TOTAL : 27S PAGES: 1

Legal Advertisement:

Doddridge County

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Delivered to the:

Clerk of the County Court

118 E. Court Street, West Union, WV 26456.

Beth A Rogers, Doddridge County Clerk

Dan Wellings, Doddridge County Flood Plain Manager

PERMIT NO. 13-098

DODDRIDGE COUNTY

FLOODPLAIN DEVELOPMENT

PERMIT

PURPOSE FOR PERMIT: ACCESS ROAD + PIPELINE
MOPA 5001 + 5006

ISSUED TO EQT

ADDRESS: 115 Professional Place
Bridgeport, WV

PROJECT ADDRESS: BIG FLINT + BRUSH RUN

ISSUED BY: Dan Welling

DATE: 12/23/2013

CONSTRUCTION MUST START WITHIN 180 DAYS FROM ISSUED DATE. PERMIT EXPIRES IN 12 MONTHS FROM ISSUED DATE. IF EXTENTION IS NEEDED A REQUEST MUST BE MADE IN WRITING STATING A REASON FOR THE EXTENTION.

THIS PERMIT MUST BE POSTED ON THE PREMISES IN A CONSPICUOUS PLACE SO AS TO BE CLEARLY VISIBLE FROM THE STREET.

#13-098
EQT -
MoPA-5001 + MoPA-5006 Pipeline Project

FILED
2013 NOV 22 PM 2:12
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

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 Megan E. Landfried

DATE 11/21/13

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: 304-841-2086

13-098

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

ENGINEER'S NAME: Thomas Woodrow, P.E
ADDRESS: 230 Executive Drive, Suite 122, Cranberry Township, PA 15143
TELEPHONE NUMBER: 831-531-5129

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	
☒	New Structure	☐	Residential (1— 4 Family)
☐	Addition	☐	Residential (more than 4 Family)
☐	Alteration	☒	Non-residential (floodproofing)
☐	Relocation	☐	Combined Use (res. & corn.)
☐	Demolition	☐	Replacement
☐	Manufactured/Mobil Home		

B. OTHER DEVEOPLMENT 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 $45,000.^{00}$

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

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

See Attachment A

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

NAME: See Attachment A **NAME:** _____

ADDRESS: _____ **ADDRESS:** _____

E. CONFIRMATION FORM

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

(A) PERSONAL SERVICE OF PROCESS BY THE DODDRIDGE COUNTY SHERIFF AT THE RATES PERMITTED BY LAW FOR SUCH SERVICE.

(B) SERVICE BY CERTIFIED MAIL RETURN RECEIPT REQUESTED.

(C) PUBLICATION.

(D) COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT.

(E) CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY FLOODPLAIN ADMINISTRATOR/MANAGER OR FLOODPLAIN APPEALS BOARD FOR REVIEW OF MATERIALS AND/OR TESTIMONY REGARDING THE EFFICACY OF GRANTING OR DENYING THE APPLICANT'S FLOODPLAIN PERMIT.

NAME (PRINT): Megan E. Lodfried

SIGNATURE: Megan E. Lodfried **DATE:** 11/21/13

Property Owner Table - Floodplain Permit
EQT Gathering, LLC - MOPA-S001 and MOPA-S006 Pipeline Project

13-098

Property Owner Name	Mailing Address	Tax Map	Parcel ID	Deed Book Reference	Land Book Description
HOST PROPERTIES (INSIDE FLOODPLAIN)					
Shirley Lee Gessler	9371 Big Flint Rd, West Union, WV 26456	03-02-11	422910265	WB 42 x132	Big Flint 384 Ac
Dwayne E Kelley	HC 67 Box 71, West Union, WV 26456	03-5-5	422909204	DB 249 x 546	Big Flint 27.27 Ac
Dwayne E Kelley	HC 67 Box 71, West Union, WV 26456	03-5-5.2	422909205	DB 249 x 546	.955 Ac Big Flint
Dorthella McIntyre	8375 Big Flint Road, West Union, WV 26456	03-6-12	422909327	DB 251 x 593	Big Flint 98.69 Ac
Jordan & Deania Stanley	Rt 2 Box 290, West Union, WV 26456	03-5-32	422904771	DB 285 x 540	Big Flint 4.30 Ac
Stephen & Remonda Trent	14 Millbrook Rd, Bridgeport, WV 26330-1054	03-5-5.1	422909129	DB 175 x 633	Big Flint Creek 11.88 Ac
PROPERTY OWNERS ABUTTING HOST PROPERTIES - INSIDE FLOODPLAIN					
Michael Benedum	426 RR5, Salem, WV 26426	03-2-3	422909470	N/A	N/A
Marty L Baker	164 Valley St. Salem, WV 26426	03-2-2	422910244	N/A	N/A
Chestnut Grove Church Trustees	Route 3, Salem, WV 26426	03-5-30	422909096	N/A	N/A
PROPERTY OWNERS ABUTTING HOST PROPERTIES - OUTSIDE FLOODPLAIN					
Stanley Jordan	Rt 2 Box 290, West Union, WV 26456	03-3-1	422904771	N/A	N/A
Albert & Roxann Leasure	HC 67 Box 73, West Union, WV 26456	03-6-1	422909199	N/A	N/A
Arnold & Juanita Kraft	726 Brush Run, West Union, WV 26456	03-6-7	422909172	N/A	N/A
Monty & Pamela Wilson	2290 Union School Rd, Mc Bee, SC 29101-8724	03-6-12.3	422909097	N/A	N/A
Vera Carroll	954 Ralphs Run, West Union, WV 26456	05-17-7	422909461	N/A	N/A
Roberta L Reed	Route 12 Ralphs Run Rd. Salem, WV 26426	05-17-12	422910270	N/A	N/A
Elvy & Mary Jane Underwood	12 Underwood Lane, West Union, WV 26456	05-17-15	422910261	N/A	N/A
Loris Underwood	Route 12 Ralphs Run Rd. Salem, WV 26426	05-17-8	422909478	N/A	N/A
Barbara Jean Durham	1 Route 3 Over, Salem, WV 26426	03-6-3	422907680	N/A	N/A
Jeffrey Lynn Bonnell	1 Route 3 Over, Salem, WV 26426	03-6-2	422909332	N/A	N/A
Flint O & G Co A Corp	Route 14, Salem, WV 26426	03-2-6	422909415	N/A	N/A
David Hayes et al	Route 14, Salem, WV 26426	03-2-10	422909360	N/A	N/A
Clark Jennings & Melissa Thompson	287A RR2 West Union, WV 26456	03-5-4.2	422909233	N/A	N/A
Robert Smith	410 Church St. West Union, WV 26456	03-5-9	422909326	N/A	N/A
Chestnut Grove Church Trustees	Off Route 3, Salem, WV 26426	03-5-30.1	422909080	N/A	N/A
Evelyn & Ronald Heintzelman	Route 3, Salem, WV 26426	03-6-20	422909036	N/A	N/A
Cecil Radcliff	127 Morgans Run Rd. West Union, WV 26456	03-6-21	422909027	N/A	N/A
Elizabeth Connor	1 Route 3 Over, Salem, WV 26426	03-6-14	422909110	N/A	N/A
Kenneth Ray Bonnell	1 Route 3 Over, Salem, WV 26426	03-6-2.2	422909151	N/A	N/A
Connie Sue Martin Life	1 Route 3 Over, Salem, WV 26426	03-6-4.1	422909325	N/A	N/A
Chestnut Christian Grove	Off Route 3, Salem, WV 26426	03-6-12.1	422909303	N/A	N/A
Trustees of Chestnut Grove	Route 3, Salem, WV 26426	03-6-12.2	422909300	N/A	N/A
Chestnut Grove Church & Cemetery	Off Route 3, Salem, WV 26426	03-5-22	422909299	N/A	N/A
Larry Haught	Off Route 3, Salem, WV 26426	03-6-18.1	422909019	N/A	N/A
Mark & Eilen Williams	67 HC 67 West Union, WV 26456	03-6-13	422909088	N/A	N/A

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: 130 & 40

Dated: 10/04/2011

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

[X] Is located in Special Flood Hazard Area.

FIRM zone designation A

100-Year flood elevation is: N/A NGVD ~~(MSL)~~

[] Unavailable

[] The proposed development is located in a floodway.

FBFM Panel No. _____ Dated _____

[] See section 4 for additional instructions.

SIGNED Dan Williams DATE 12/23/2013

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 _____

KLEINFELDER
Bright People. Right Solutions.

230 Executive Drive
Suite 122
Cranberry Township, PA
16066
o| 724.772.7072
f | 724.772.7079

TRANSMITTAL

To:

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

Date: December 3, 2013

Reference No: 136508

cc: Project File

Subject: **Doddridge County Floodplain Development Permit #13-098**
MOPA-S001 & MOPA-S006 Pipeline Project
Doddridge County, West Virginia
EQT Gathering, LLC

☒ **Attached** ☐ **Under separate cover**

Via:
- ☐ Messenger/Courier
- ☐ First Class Mail
- ☒ FedEx
- ☐ United Parcel
- ☐ DHL
- ☐ Lone Star Overnight
- ☐ Freight
- ☐ Other

Transmitted:
- ☐ As Requested
- ☐ For Approval
- ☐ For Your Use
- ☐ For Review & Comment

Remarks:

Revised check in the amount of $500.00 for fees associated with the pipeline crossing of a floodplain.

By: **Matt Albright**
Project Manager

FILED
2013 DEC -4 PM 2:19
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

#13-098

KLEINFELDER
Bright People. Right Solutions.

FILED
2013 NOV 22 PM 2:12
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

November 21, 2013

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

Re: Doddridge County Floodplain Development Permit Application
MOPA-S001 & MOPA-S006 Pipeline Project
Doddridge County, West Virginia
EQT Gathering, LLC

Dear Mr. Wellings:

EQT Gathering, LLC (EQT) is proposing to install the 0.93-mile, 16-inch diameter MOPA-S001 and the 0.82-mile, 12-inch diameter MOPA-S006 natural gas pipelines in Doddridge County, West Virginia (Figure 1). The proposed MOPA-S001 & MOPA-S006 pipelines (Project) will tie into an existing EQT Production Company Well Pad to the south and the proposed Pandora Compressor Facility to the north. Kleinfelder East, Inc. (Kleinfelder), on behalf of EQT, has enclosed a Doddridge County Floodplain Development Permit Application for your review and approval along with a permit fee detail sheet and check in the amount of $1,725.$\underline{00}$.

A list of property owners located along and adjacent to the Project is included as Attachment A.

The Project location maps (Figure 1 - USGS Topographic Map and Figure 2 - Aerial Imagery Map) depict the proposed right of way (ROW) associated with the pipeline construction activities. A description of the pipeline construction activities is included as Attachment B.

The Flood Hazard Map (Attachment C) depicts locations where temporary construction activities will enter and exit the floodplain. Approximately 350 feet of temporary access roads and 3,980 feet of pipeline will be installed in the floodplain with a temporary construction disturbance of 0.69 acres. Following completion of the pipeline installation activities, the Project ROW will be restored to pre-construction contours and no permanent structures will be constructed; therefore, there will be no change to the base flood elevations. It should be noted that a pig launcher will temporarily remain in the floodplain at the connection point of the MOPA-S001 and MOPA-S006 Pipelines (39.371291, -80.718763 (Figure 1)) until the MOPA-S003 Pipeline can be constructed and the pig launcher moved outside of the floodplain permanently.

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State and Federal permit applications for the Project have been submitted and are enclosed as Attachment D. In addition, available State and/or Federal approvals at the time of this submittal are enclosed (Attachment D). Remaining approval letters can be forwarded to your office upon receipt.

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

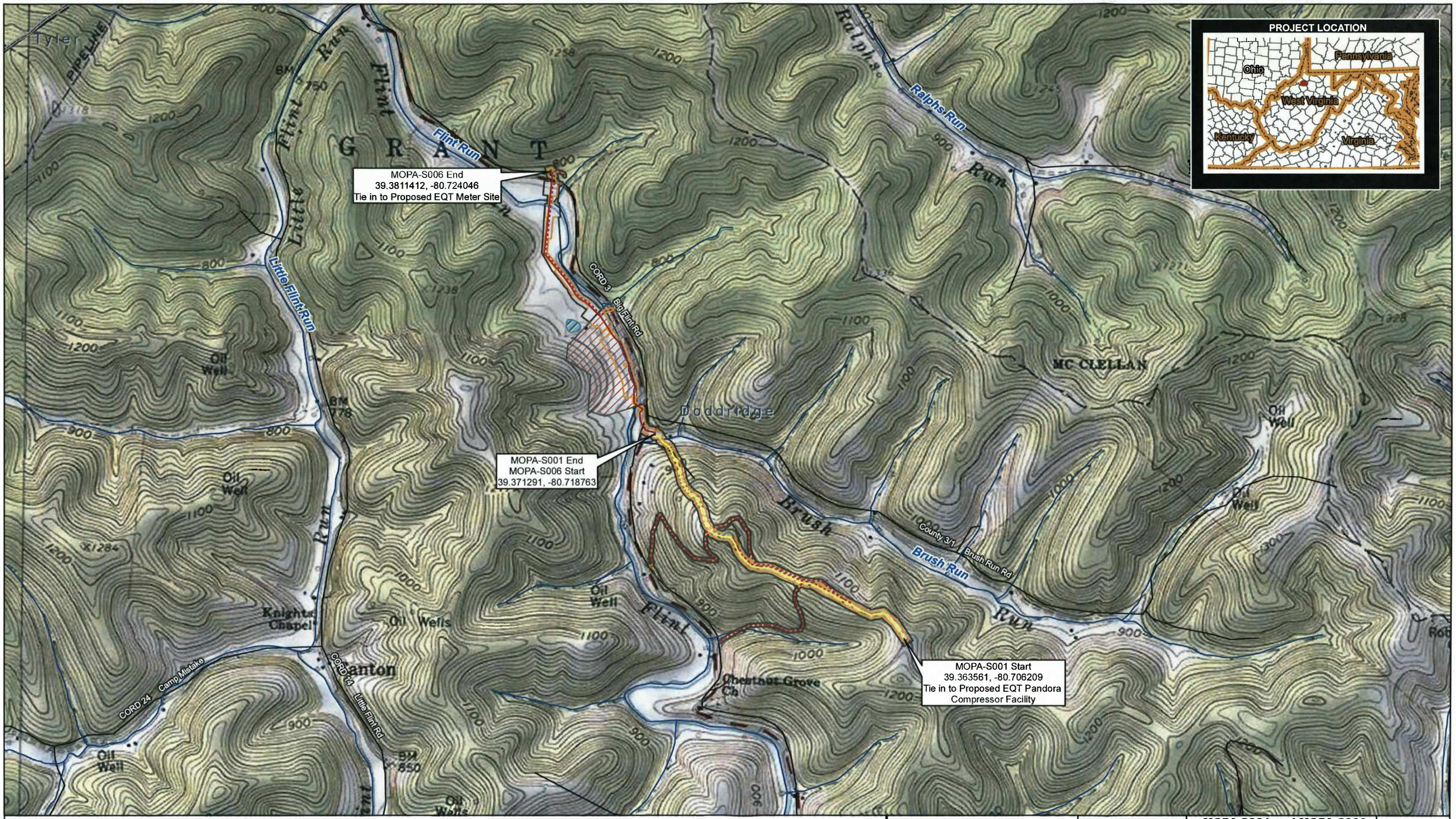
Respectfully submitted,

Matthew J. Albright
Project Manager

c: Megan Landfried, EQT

Enclosures (7)
- Doddridge County Floodplain Development Permit Application/Detail Sheet/Check
- Figure 1 – USGS Topographic Map
- Figure 2 – Aerial Imagery Map
- Attachment A – Property Owner Table
- Attachment B – Pipeline Construction Description
- Attachment C – Flood Hazard Map
- Attachment D – State & Federal Permit Applications and Approval Letters

230 Executive Drive, Suite 122, Cranberry Township, PA 16066 **p** | 724.772.7072 **f** | 724.772.7079



0 0.15 0.3 0.6 Miles

N

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Base map from ESRI Online Maps. USGS 1:24000 Center Point and Smithburg Topographic Quad

Legend

- MOPA-S001 Alignment
- MOPA-S006 Alignment
- MOPA-S001 & MOPA-S006 Access Roads
- Area of Interest
- MOPA-S001 & MOPA-S006 ROW
- AOI Delineated by Potesta for Gessler Impoundment
- NHD Stream
- NWI Wetlands
- Existing Road

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PROJECT NO.	136508
DRAWN:	11/15/2013
DRAWN BY:	B. McDavid
CHECKED BY:	H. Krepsik
FILE NAME:	MOPA_001006_Vicinity.mxd

MOPA-S001 and MOPA-S006 Pipeline Project

EQT Gathering, LLC
Doddridge County, West Virginia
USGS Topographic Map

FIGURE
1

0 0.075 0.15 0.3 Miles

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Base map from ESRI Online Maps. USGS 1:24000 Center Point and Smithburg Topographic Quad

Legend

- MOPA-S001 Alignment
- MOPA-S006 Alignment
- MOPA-S001 & MOPA-S006 ROW
- MOPA-S001 & MOPA-S006 Access Roads
- Area of Interest
- AOI Delineated by Potesta for Gessler Impoundment
- Potesta Delineated Streams
- Potesta Delineated Wetlands
- Delineated Wetlands
- Delineated Streams
- NWI Wetlands
- NHD Stream
- Existing Road

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PROJECT NO.	136027
DRAWN:	11/15/2013
DRAWN BY:	B. Carlin
CHECKED BY:	N.Peace
FILE NAME:	MOPA_001006_JurisdictionalFeatures.mxd

MOPA-S001 and MOPA-S006 Pipeline Project

EQT Gathering, LLC
Doddridge County, West Virginia
Jurisdictional Features Map

FIGURE
2

ATTACHMENT A

PROPERTY OWNER TABLE

ATTACHMENT B

PIPELINE CONSTRUCTION DESCRIPTION

EQT

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PIPELINE CONSTRUCTION DESCRIPTION

MOPA-S001 & MOPA-S006 Pipeline Project

Doddridge County, West Virginia

Construction on the MOPA-S001 & MOPA-S006 Pipeline Project will utilize erosion and sediment (E&S) control measures that consist of compost filter sock, silt fence, right-of-way (ROW) diversions, trench breakers (plugs), silt fence, and temporary and permanent seeding and mulching. Best Management Practice (BMP) specifications from the site-specific E&S control plan (E&SCP) will be utilized by the construction contractor. Straw/hay bales will not be used as an E&S control.

Descriptions of the Pipeline Project construction activities are outlined in the sequence below:

1. Prior to beginning land disturbing activities, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area. These shall be clearly marked, both in the field and on the plans, to prevent damage and offsite impacts.

2. Install stone construction entrances at all locations where temporary access roads will be accessing a paved roadway.

3. Install temporary E&S controls (silt fence, ROW diversions, etc.) Prior to any excavation work to ensure, to the maximum extent practicable, that no significant erosion or sedimentation occurs.

4. ROW diversions and/or other erosion and sediment control devices will be installed as needed. If clearing and grubbing is required, see below regarding the management and disposal of debris.

5. After access to and along the proposed utility line has been provided, the general clearing and grubbing of the trees and brush along the ROW for pipe trenching may commence to the width specified in the E&SCP. Trees shall be windrowed on low side of ROW. All pollutants, including waste materials and demolition debris, that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of surface waters. Woody debris may be chopped and spread on-site.

6. Minor grading within the ROW will be conducted where necessary to provide an even surface for safe and efficient operation of construction equipment. Grading will be the minimum amount necessary and BMPs will be installed promptly. Tree stumps, and large rocks and boulders will also be removed for safety at this time.

7. Excavate pipeline trench. Pipeline trench shall be excavated to a width of approximately 5 feet and a minimum cover of 3 feet shall be provided above pipeline at all locations except for wetlands and streams. A minimum cover of 5 feet shall be provided along pipeline at wetland and stream crossings.

8. The proposed construction ROW will be used as a work area for trench excavation, equipment movement, and the storage of soil stockpiles, as needed. Equipment soil stockpiles, and other materials area to remain upslope of BMPs during construction activities.

9. Segregation of topsoil and subsoil will be performed where trench excavation takes place in an agricultural, wetland, or residential area.

10. Temporary E&S controls for stream crossings shall be installed at locations shown on the E&SCP and associated detail sheets.

11. Stream and river pipeline crossing construction methods will be installed at locations shown on the E&SCP sheets and as specified on the detail sheets. Waterbodies will be crossed with temporary bridges, such as timber mats or approved equal crossings, prior to crossing the conveyance, if flowing water is present at the time of the construction of that waterbody. Stream bank stabilization will be performed immediately following completion of the pipeline installation.

12. Wetland crossing widths for utility crossings will be kept to a minimum and will be stabilized by placing timber mats, riprap, or pre-fabricated swamp mats, as shown on the detail sheets. All materials used to stabilize access roads in wetland areas will be removed from the wetland upon completion of the pipeline construction.

13. 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 material laid on the trench bottom to protect the pipe coating. Any wetness encountered during construction work will be dewatered by using pumps, hoses, and dewatering bags, and will be discharged to a well-vegetated upland area.

14. Install trench breakers (plugs) at locations as shown on the E&SCPs and as specified on the associated detail sheets.

15. The trench will be subsequently 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 stormwater-related problems from settling of the backfilled area. No crowning of the soils will take place in wetlands, streams, or floodplains, disturbed areas will be restored to their original topographic contours.

16. Exposed and unworked soils shall be stabilized by application of effective BMPs that protect the soil from erosive forces of raindrops, flowing water and wind. All disturbed areas that are at final grade must be seeded and mulched within seven days and areas that will not be worked again for 21 days or more must be seeded and mulched within seven days. For disturbed areas with slopes of 3:1 or greater, the area will be vertically tracked and erosion control fabric shall be installed after seed, mulch, and soil supplements have been applied. The temporary/permanent seeding and mulch table on the detail sheets consist of

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the type of seed and application rate that shall be applied, including the nurse crop that shall be used during certain time of the year to promote stabilization of the soil until the perennial seedlings establish.

17. In the unlikely event that there are excess excavated materials remaining after the trench has been backfilled, the material will be disposed of within the existing ROW in an upland area outside of wetlands, streams, and floodplains. Material will be spread in a thin layer and tied into existing contours to create positive drainage for stormwater runoff.

18. All E&S controls will be inspected, at a minimum, once every seven calendar days and within 24 hours after any storm event greater than 0.5-inch per 24-hour period until there is a 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.

19. No sediment tracking on the roadway is allowed. In the event that sediment is inadvertently tracked onto the road, the road shall be cleaned thoroughly by the end of each day. Sediment shall be removed from roads by shoveling or pickup sweeping and shall be transported to a controlled sediment disposal area. Street washing of sediments to the storm drain system is not allowed. If street wash wastewater can be controlled from entering the storm drainage system, then it shall be pumped back onto the site, contained and disposed of properly.

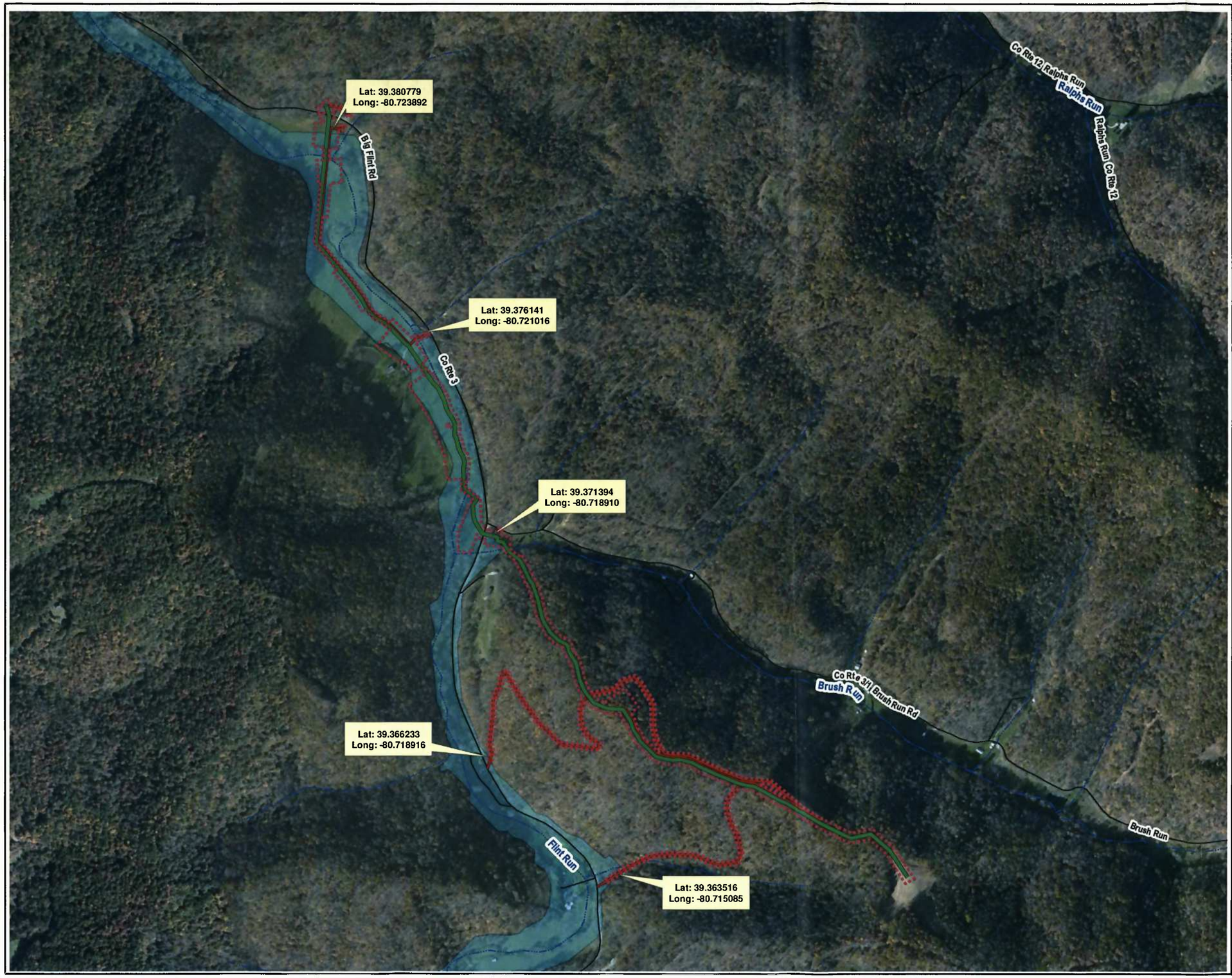
20. Construction access restoration shall be equal or better than the pre-construction condition and grades that were altered during construction activities shall be restored to original grades and match existing drainage patterns.

21. Linear construction activities such as right-of-way and easement clearing, roadway development, pipelines, and trenching for utilities, shall be conducted to meet the soil stabilization timeframe requirements. Contractors shall install the bedding materials, roadbeds, structures, pipelines, or utilities and re-stabilize the disturbed soils so that the 7-day requirements are met.

The current base flood elevation at the proposed Flint Run crossings is a maximum of approximately 765 feet. Following completion of the pipeline installation activities, the ROW will be restored to pre-construction contours and no permanent structures will be constructed; therefore, there will be no change to the base flood elevations. It should be noted that a pig launcher will temporarily remain in the floodplain at the connection point of the MOPA-S001 and MOPA-S006 Pipelines (39.371291, -80.718763 (Figure 1)) until the MOPA-S003 Pipeline can be constructed and the pig launcher moved outside of the floodplain permanently.

ATTACHMENT C

FLOOD HAZARD MAP



FLOOD HAZARD MAP

MOPA-S001 & MOPA-S006
Pipeline Project
EQT Gathering, LLC
Doddridge County, WV

- Alignment (1.75 mi)
- Right Of Way/Temporary Workspace
- Access Road
- 100 Year Floodplain (FEMA/WV 2013)
- Stream (NHD)

Doddridge District Doddridge County, WV Flint Run Watershed	
Will Construction activities take place in a floodplain:	YES
Coordination with county flooplain coordinator required:	YES
HEC-RAS study required:	N/A
Floodplain shown on mapping:	YES
FIRM Map number(s) for project:	54017C0130C, 54017C0040C
Acreage of temporary construction in floodplain :*	1.26 ac
Linear feet of pipeline in floodplain :	3,980 ft
Linear feet of temporary access roads in floodplain :	2,555 ft

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

Aerial Photography: ESRI; NWI Weltand: US FWS; Stream: USGS;
Floodplain: WV GIS Technical Center & FEMA

PROJECT NO.:	136027
DRAWN:	11/15/2013
DRAWN BY:	GHB
CHECKED BY:	MA/HK
FILE NAME:	MOPA001006_Floodplain

0 800 1,600
Feet

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ATTACHMENT D

STATE & FEDERAL PERMIT APPLICATIONS AND APPROVAL LETTERS

13-098

NATIONWIDE PERMIT-12 APPLICATION FOR MOPA-S001 & MOPA-S006 PIPELINE PROJECT

DODDRIDGE COUNTY, WEST VIRGINIA

PREPARED FOR:

EQT GATHERING, LLC
115 PROFESSIONAL PLACE
BRIDGEPORT, WV 26330

SUBMITTED TO:

MR. MARK TAYLOR
ENERGY RESOURCE BRANCH, REGULATORY DIVISION
U.S. ARMY CORPS OF ENGINEERS, HUNTINGTON DISTRICT
502 EIGHTH STREET
HUNTINGTON, WV 25701

PREPARED BY:
Kleinfelder East, Inc.
230 Executive Drive, Suite 122
Cranberry Township, PA 16066

NOVEMBER 15, 2013

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Figure 2 – Jurisdictional Features Map
Figure 3 – Soils Map

APPENDICES

Appendix A – Wetland Delineation Data Sheets
Appendix B – Wetland Delineation Photos for Impacted Features
Appendix C – Agency Correspondence Letters

Executive Summary

EQT Gathering, LLC (EQT) proposes to construct the 0.93-mile, 16-inch diameter MOPA-S001 and the 0.82-mile, 12-inch diameter MOPA-S006 steel natural gas pipelines in Doddridge County, West Virginia (Figure 1). The proposed MOPA-S001 and MOPA-S006 pipelines (Project) will tie into a proposed EQT Production Company Meter Site to the north and the proposed Pandora Compressor Facility to the south. The Project proposes to recover natural gas from state-permitted wells within the region. The purpose of the Project is to establish pipeline connections required for the gathering of natural gas.

Kleinfelder East, Inc. (Kleinfelder) conducted stream and wetland investigations between September 3 and 5, 2013 to identify streams and wetlands within the area of interest (AOI). A portion of this Project was delineated by Potesta & Associates, Inc. (Potesta) on October 22, 2012, which was formerly known as the Gessler Freshwater Impoundment. During combined field investigations, thirteen (13) jurisdictional features were observed within the AOI and included nine (9) streams and four (4) wetlands (Figure 2). Project-specific details regarding the AOI are provided in Section 1.0. The methodology utilized for Kleinfelder's site review and desktop analysis is provided in Section 2.0. Section 3.0 provides documentation of the features identified during delineation of the project AOI.

The proposed MOPA-S001 and MOPA-S006 pipelines and associated access roads would temporarily impact two (2) perennial streams, two (2) intermittent streams, three (3) ephemeral streams and two (2) palustrine emergent (PEM) wetlands. These temporary impacts would be associated with fill-related activities. Section 4.0 provides information regarding the proposed impacts and avoidance and minimization measures taken to reduce impacts. Section 5.0 includes engineer drawings depicting cross sections and profiles of the proposed impacts.

1.0 Introduction

The contents of this report constitute a Nationwide Permit-12 (NWP-12) application and Preliminary Jurisdictional Determination (PJD) request. As such, this report contains all information applicable to a Pre-Construction Notification (PCN) for a NWP-12.

Applicant Information:
EQT Gathering, LLC
c/o Megan Landfried
115 Professional Place
Bridgeport, WV 26330
Business Phone: 304-848-0061
Fax: 304-848-0040

Agent Information:
Kleinfelder
c/o Thomas Woodrow, P.E.
230 Executive Drive, Suite 122
Cranberry Township, PA 16066, USA
Business Phone: 724-831-5129
Fax: 724-772-7079

1.1 Project Description

The proposed 0.93-mile, 16-inch diameter MOPA-S001 and the 0.82-mile, 12-inch diameter MOPA-S006 steel natural gas pipelines will be installed at a minimum depth of three (3) feet below the ground surface in upland areas and at a depth of four (4) feet below the ground surface at stream and wetland crossings within the construction Right-of-Way (ROW). The Project is approximately 1.75 miles total in length with an AOI of approximately 60.76 acres in total. Kleinfelder completed the survey of approximately 37.69 acres in September 2013. Potesta surveyed approximately 23.07 acres in October 2012. The Project will tie into a proposed EQT Production Company Meter Site to the north and the proposed Pandora Compressor Facility to the south. The proposed Project crosses four separate streams listed in the National Hydrography Dataset (NHD) and no National Wetland Inventory (NWI) wetlands (Figure 1).

1.2 Land Owner Information

Table 1. Land Owner Information

Property Owner	Address
Stanley L. & Loreen V. Jordan	348 Knights Fork Rd, West Union, WV 26456
Eric S. Gessler	9371 Big Flint Rd, West Union, WV 26456
Dwayne E. Kelley	62 HC 67, West Union, WV 26456-9314
Roxann S. & Albert Leasure	200 Brush Run, West Union, WV 26456-9300
Dorthella McIntyre Life	Unknown Address
Juanita M. Krafft Et. Al.	726 Brush Run, West Union, WV 26456
Monty S. & Pamela M. Wilson	2290 Union School Rd, Mc Bee, SC 29101-8724
Stephen W. & Remonda L. Trent	14 Millbrook Rd, Bridgeport, WV 26330-1054

1.3 Location

Approximate coordinates of the Project are: Northern terminus (MOPA-S006 End) 39.3811412°, -80.724046°; Start of MOPA-S006 and End of MOPA-S001 39.371291°, -80.718763°. Southern terminus (MOPA-S001 Start) 39.363561°, -80.706209°. The project is located in Doddridge County as shown on the General Vicinity Map (Figure 1).

To drive to the Project site: From the town of West Union, WV, drive approximately 9.5 miles east on US Route 50 to Big Flint Road (County Road 3). Turn left (north) on Big Flint Road and travel for approximately 8.8 miles to the intersection of Big Flint Road and Brush Run Road. This intersection is at the approximate midpoint of the proposed project.

1.4 Site Description

Figure 1 depicts the general location of the proposed AOI. The Project predominantly traverses upland deciduous forests and pasture lands. The landscape ranges from predominantly forested ridges that transition into multiple valleys, ravines, and a floodplain. Four wetlands were identified within the AOI, as well as three ephemeral, four intermittent, and two perennial streams. Elevations throughout the AOI range from approximately 740 feet to 1,220 feet above mean sea level (MSL). A County Road (Big Flint Road) crosses the AOI at two different locations.

1.5 Climate/Site Conditions

According to the National Weather Service, average annual precipitation for Clarksburg, WV (approximately 26 miles east of the site) is 45 inches. During the 12 months preceding the September 2013 field studies, Clarksburg, WV received 46.56 inches of precipitation. This area received approximately 8.18 inches of precipitation during the month preceding the field studies (August 2013). This level of precipitation is approximately 3.77 inches above the monthly average. During the week preceding the field studies, precipitation measured 3.06 inches. Weather conditions during the week of the site visit consisted of temperatures averaging 64-81 degrees Fahrenheit with intermittent rain.

2.0 Methods

2.1 Date of Field Work and Personnel

Field work was conducted between September 3 and 5, 2013 by Kleinfelder biologists Evan McClung and Jillian Tompkins. Evan McClung is a Senior Environmental Scientist with 15 years of experience conducting stream assessments, wetland delineations, and habitat assessments. Jillian Tompkins is an Environmental Scientist with two years of experience conducting stream assessments, wetland delineations, habitat assessments, and the operation of professional-grade Global Positioning System (GPS) units. A portion of the Project was delineated by Potesta on October 22, 2012, which was formerly known as the Gessler Freshwater Impoundment.

2.2 Scope of Work

At the request of EQT, Kleinfelder biologists delineated wetlands and watercourses within a minimum 150-foot AOI (minimum 75 feet on either side of the pipeline centerline) of the proposed pipeline alignments and a minimum 50-foot AOI (25 feet on either side of the centerline) of access roads according to procedures outlined in the 1987 U.S. Army Corps of Engineers' (ACOE) Wetland Delineation Manual and the ACOE Eastern Mountains and Piedmont Regional Supplement Version 2.0 (ACOE, 2012).

Kleinfelder utilized a three-parameter approach involving the examination of vegetation, soils, and hydrology to identify wetlands. Representative photographs were taken of each stream or wetland feature, which are provided in Appendix B. Wetlands were delineated in the field at the wetland boundary. Larger streams (greater than 10-feet wide at the banks) were delineated at the top of each stream bank, and smaller streams (less than 10-feet wide at the banks) were delineated along the centerline of the stream channel. All feature delineation points were collected with a sub-meter accuracy GPS unit. Each data point was recorded with reference to a numbered flag location where it was collected. The GPS data points were verified and validated by the field and engineering teams and combined into shapefiles, which were used to create the mapping (Figures 1, 2 and 3) and the engineer drawings (Section 5.0).

Jurisdictional determinations were made in accordance with the procedures outlined in the 1987 ACOE Wetland Delineation Manual, the ACOE's Eastern Mountains and Piedmont Regional Supplement to the Wetland Delineation Manual (ACOE, 2012), and instruction and guidance conducted by ACOE personnel during field training in October 2012.

Wetlands determined to be ACOE jurisdictional exhibited hydric soils, hydrophytic vegetation, and indicators of hydrology. Jurisdictional streams exhibited ordinary high water marks, defined beds and banks, and a sorted substrate. Additionally, jurisdictional features were determined to have a significant nexus to a Traditional Navigable Water (TNW) via direct connectivity or the ability to affect physical, chemical or biological integrity to a TNW. Sections 3.0 and 4.0 provide detailed descriptions of each jurisdictional wetland and stream feature.

2.3 Desktop Analysis

Kleinfelder conducted a desktop analysis to examine known stream and wetland data from the NWI and NHD databases. NWI data were obtained from the U.S. Fish and Wildlife Service (USFWS) (http://www.fws.gov/wetlands/Data/State-Downloads.html). NHD data were obtained from the ESRI online map service. These datasets were superimposed upon USGS topographic data to identify areas likely to contain hydrologic features.

After delineation, a desktop review was conducted to determine stream classifications (Tables 2 and 3). Designated trout streams were evaluated through consultation with the West Virginia Department of Environmental Protection (WV DEP). High Quality Waters were evaluated by reviewing Water Quality Standard Data available through the WV DEP website (http://www.dep.wv.gov/WWE/Programs/wqs/Pages/default.aspx).

2.4 ACOE Jurisdictional Statement

This report reflects the professional opinion of Kleinfelder. Formal determination of jurisdiction regarding wetlands and waters of the United States (U.S.) can only be determined by the ACOE with the submittal of a jurisdictional determination request by the Project Applicant.

3.0 Findings

During the site reviews conducted by Kleinfelder and Potesta, thirteen (13) jurisdictional features were observed within the AOI and included nine (9) streams and four (4) wetlands.

3.1 Jurisdictional Findings

Jurisdictional streams and wetlands in the AOI are described below and depicted in Figure 2. Table 2 provides a list of the jurisdictional features and descriptive information. Thirteen (13) jurisdictional features were observed and included nine (9) streams and four (4) wetlands. Data sheets for these features were completed and are included in this report as Appendix A. Photographs of streams and wetlands are included as Appendix B.

Table 2. Potentially Jurisdictional Aquatic Features Identified in the AOI

Name	Cowardin Code	HGM Code	Measurement Type	Amount	Units	Waters Types	Latitude	Longitude	Local Waterway	Wild Trout	Stocked Trout	High Quality Water
Streams												
Stream 1 (PER)	R3UB1	Riverine	length	910	feet	RPW	39.37219	-80.71978	Flint Run	No	No	Yes
Stream 2 (INT)	R4SB3	Riverine	length	150	feet	RPW	39.38067	-80.72363	UNT to Flint Run	No	No	No
Stream 3 (EPH)	R6	Riverine	length	175	feet	NRPW	39.37757	-80.72384	UNT to Flint Run	No	No	No
Stream UNT2 (INT)	R6	Riverine	length	750	feet	RPW	39.37261	-80.71987	UNT to Flint Run	No	No	No
Stream 5 (PER)	R3UB1	Riverine	length	295	feet	RPW	39.37108	-80.71862	Brush Run	No	No	No
Stream 6 (EPH)	R6	Riverine	length	40	feet	NRPW	39.36404	-80.71342	UNT to Flint Run	No	No	No
Stream 7 (INT)	R4SB3	Riverine	length	200	feet	RPW	39.36352	-80.71526	UNT to Flint Run	No	No	No
Stream UNT1 (INT)	R4SB3	Riverine	length	140	feet	RPW	39.37533	-80.72093	UNT to Flint Run	No	No	No
Stream UNT3 (EPH)	R6	Riverine	length	175	feet	NRPW	39.37505	-80.72156	UNT to Flint Run	No	No	No
Wetlands												
Wetland A	PEM	Depress	area	0.30	acres	DELINEATE	39.37676	-80.72263	N/A	N/A	N/A	N/A
Wetland B	PEM	Depress	area	0.02	acres	DELINEATE	39.36438	-80.71511	N/A	N/A	N/A	N/A
Wetland WL1	PEM	Depress	area	0.02	acres	DELINEATE	39.37307	-80.72043	N/A	N/A	N/A	N/A
Wetland WL2	PEM	Depress	area	0.02	acres	DELINEATE	39.37250	-80.72030	N/A	N/A	N/A	N/A

Description of Jurisdictional Findings:

Stream 1 (MO-S-1) is a perennial stream (Flint Run) that is located in the northern half of the Project AOI. Stream 1 is hydrologically connected to Streams 2, 3, 4, and 5 and Wetland A. At the time of the field investigation, the stream contained water 12 inches deep and 35 feet wide moving at a moderate pace over the streambed. The stream substrate was primarily composed of a silt/clay/mud mixture. Pools were observed and measured to a depth of approximately two (2) feet. This stream is a relatively permanent waterway (RPW) and meets the definition of jurisdictional water of the United States.

In addition, the WVDNR classifies Stream 1 as a High Quality Stream and as a state listed mussel stream. A mussel survey was conducted on September 24, 2013 which did not identify any state listed mussels in the area of the proposed pipeline and access road crossings. A copy of the report is provided as Appendix C.

Stream 2 (MO-S-2) is shown as a blue line perennial stream on Figure 1. Field investigations determined that it is an intermittent stream (unnamed tributary (UNT) to Flint Run). This stream is located within the northernmost portion of Project AOI. Stream 2 is hydrologically connected to Stream 1. At the time of the field investigation, the stream contained water zero (0) to one (1) inch deep and zero (0) to five (5) inches wide. The stream substrate was primarily composed of gravel. Pools were observed and measured to a depth of approximately five (5) inches. This stream maintains surface connectivity to an RPW and meets the definition of jurisdictional water of the United States.

Stream 3 (MO-S-3) is an ephemeral stream (UNT to Flint Run) that is located predominantly within a pasture in the northern portion of Project AOI. Stream 3 is hydrologically connected to Stream 1. At the time of the field investigation, the stream contained water less than one (<1) inch deep and six (6) inches wide. The stream substrate was primarily composed of a silt/clay/mud mixture. This stream maintains surface connectivity to an RPW and meets the definition of jurisdictional water of the United States.

Stream UNT2 is an intermittent stream (UNT to Flint Run) that is located in the central portion of Project AOI. The stream substrate was primarily composed of gravel and cobble. This stream, as delineated by Potesta, is an RPW and meets the definition of jurisdictional water of the United States.

Stream 5 (MO-S-5) is a perennial stream (Brush Run) that is located centrally within the Project AOI. Stream 5 is hydrologically connected to Stream 1. At the time of the field investigation, the stream contained water five (5) inches deep and 10 feet wide moving at a moderate pace over the streambed. The stream substrate was primarily composed of gravel. Pools were observed and measured to a depth of approximately 10 inches. This stream is a RPW and meets the definition of jurisdictional water of the United States.

Stream 6 (MO-S-6) is an ephemeral stream (UNT to Flint Run) that is located in the southern portion of Project AOI at a proposed access road crossing. Stream 6 is hydrologically connected to Stream 7. At the time of the field investigation, the stream did not containing any flowing water. The stream substrate was primarily composed of cobbles. This stream maintains surface connectivity to an RPW and meets the definition of jurisdictional water of the United States.

Stream 7 (MO-S-7) is shown as a blue line perennial stream on Figure 1. Field investigations determined that it is an intermittent stream (UNT to Flint Run). This stream is located in the southern portion of Project AOI at an access road crossing. Stream 7 is hydrologically connected to Stream 1 outside the AOI. At the time of the field investigation, the stream contained water approximately one (1) inch deep and six (6) inches wide. The stream substrate was primarily composed of gravel. Pools contained water at depths of four (4) inches. This stream maintains surface connectivity to an RPW and meets the definition of jurisdictional water of the United States.

Stream UNT 1 is an intermittent stream (UNT to Flint Run) that is located in the northern portion of the Project AOI. The stream substrate was primarily composed of gravel and cobble. This stream, as delineated by Potesta, is an RPW and meets the definition of jurisdictional water of the United States.

Stream UNT 3 is an ephemeral stream (UNT to Flint Run) that is located in the northern portion of the Project AOI. The stream substrate was primarily composed of gravel and cobble. This stream, as delineated by Potesta, maintains surface connectivity to an RPW and meets the definition of jurisdictional water of the United States.

Wetland A is a PEM wetland located in the northern portion of the Project AOI. Wetland A occurs within a field and floodplain of Flint Run (Stream 1). Data obtained during the site visit indicate hydric soils, hydrophytic vegetation, and indicators of hydrology parameters were met; therefore this area was determined to be a wetland as defined by the ACOE. This wetland maintains a surface connection to a RPW and is anticipated to be jurisdictional to the ACOE.

Wetland B is a PEM wetland located in the southern portion of the Project AOI associated with a proposed access road. Wetland B has been impacted by significant mechanical waste debris. Hydric soils, hydrophytic vegetation, and indicators of hydrology were observed and collected in the field, and therefore this area was determined to be a wetland as defined by the ACOE. This wetland maintains a surface connection to a RPW and is anticipated to be jurisdictional to the ACOE.

Wetland WL1 is a PEM located in the central portion of the Project AOI within a field. Potesta staff observed hydric soils, hydrophytic vegetation, and indicators of hydrology, and therefore this area was determined to be a wetland as defined by the ACOE. This wetland exhibited a physical, chemical or biological connection to a RPW and meets the definition of a jurisdictional water of the United States.

Wetland WL2 is a PEM wetland located in the central portion of the Project AOI within a field. Potesta staff observed hydric soils, hydrophytic vegetation, and indicators of hydrology, and therefore this area was determined to be a wetland as defined by the ACOE. As determined by Potesta, this wetland maintains a hydrologic connection to an RPW (Flint Run) and is anticipated to be jurisdictional to the ACOE.

4.0 Impacts

The proposed MOPA-S001 and MOPA-S006 pipelines and associated access roads would temporarily impact two (2) perennial streams, two (2) intermittent streams, three (3) ephemeral streams and two (2) PEM wetlands. Section 5.0 includes plan drawings depicting cross sections and profiles of the proposed impacts. Table 3 summarizes the proposed stream and wetland impacts and the avoidance and minimization measures for each aquatic feature. The coordinates provided in Table 3 reflect where the proposed impact will occur. Proposed impacts would be temporary in nature and less than 0.10 acre in area so no compensation or mitigation is proposed.

Proposed fill impacts associated with the installation of the pipelines will utilize a dry open cut installation method. Temporary impacts associated with access road improvements will be required due to grading and widening of existing road beds.

To the extent practicable, the location of the proposed pipeline was developed to avoid and minimize impacts to wetlands and streams. Field data collected during stream and wetland delineations provided the basis for adjusting the pipeline location in a manner that minimized and avoided impacts to aquatic habitats and biological features.

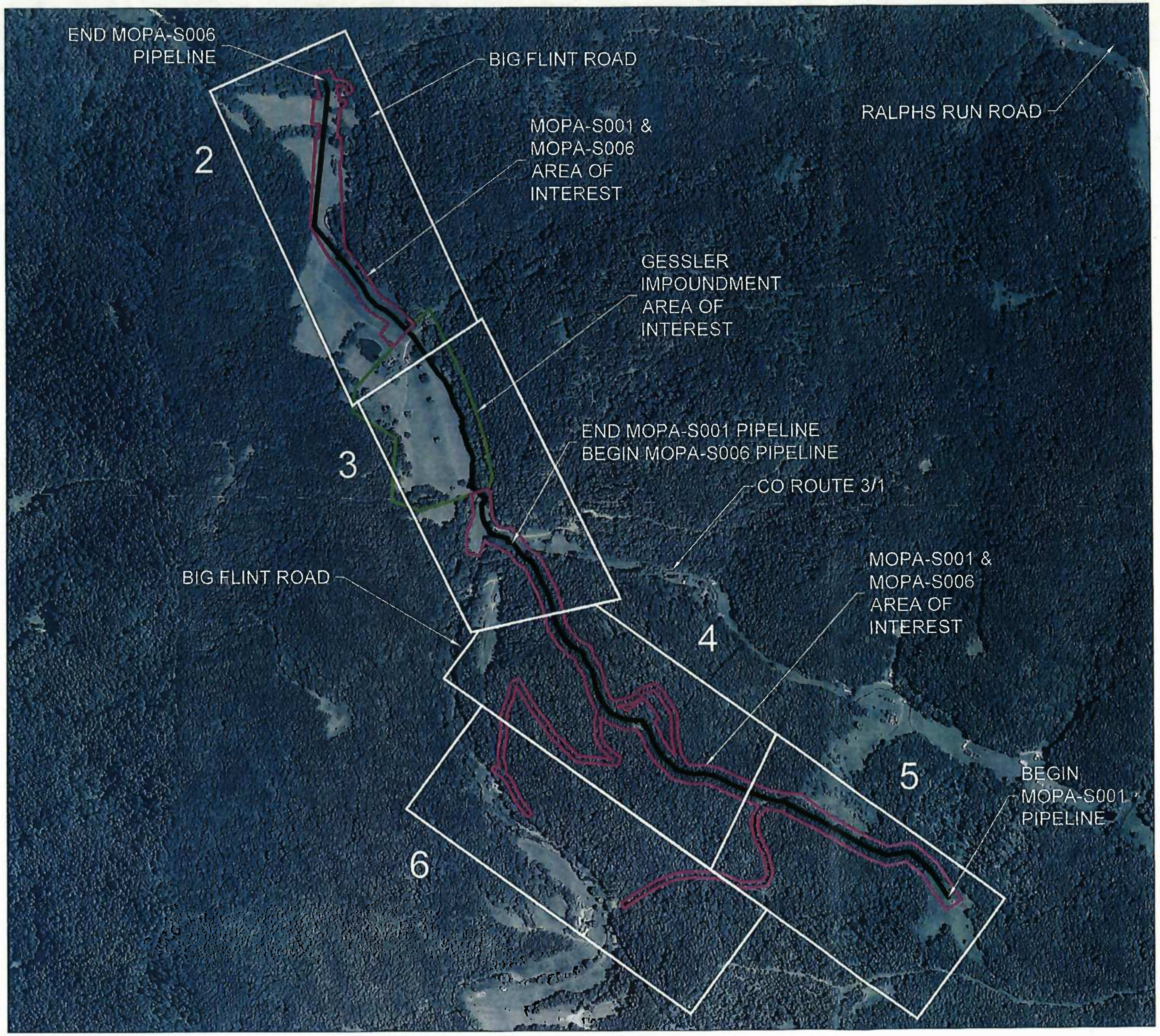
Waters Name	Local Waterway	Waterbody Type	HGM Code	Cowardin Code	Latitude	Longitude	Proposed Crossing Method	Bank-to-Bank Width at Pipeline Crossings (feet)	Temporary Impacts Associated with Access Road Installation (cubic yards)	Temporary Impacts Associated with Installation of 12-inch diameter pipeline (cubic yards)[1]	Temporary Impacts Associated with Backfill of Native Fill Material around 12-inch diameter pipeline (cubic yards)	Temporary Impacts Associated with Installation of 16-inch diameter pipeline (cubic yards)	Temporary Impacts Associated with Backfill of Native Fill Material around16-inch diameter pipeline (cubic yards)	Total Feature Length Temporarily Affected by Pipeline Fill (Feet)	Total Feature Area Temporarily Affected by Pipeline Fill (Acres)	Feature Length Located within Construction LOD (Feet)	Feature Area Located within Construction LOD (Acres)	Potential Temporary Construction Impacts - Non-Fill (Linear Feet)[2]	Potential Temporary Construction Impacts - Non-Fill (Acres)[2]	Avoidance and Minimization
Streams																				
STREAM 1 1ST CROSSING (PER)	Flint Run	RPW	Riverine	R3UB1	39.380276	80.723951	OPEN-CUT	59.014	22.257	1.717	53.317	N/A	N/A	59.014	0.007	40.060	0.054	35.060	0.047	Cannot reroute around this feature due to the length and nature of the stream.
STREAM 3 (EPH)	Unnamed Tributary to Flint Run	NRPW	Riverine	R6	39.377657	80.723706	OPEN-CUT	2.000	0.748	0.058	1.794	N/A	N/A	2.002	0.001	49.650	0.002	44.650	0.001	Cannot reroute around this feature due to the length and nature of the stream.
STREAM 1[3] 2ND CROSSING (PER)	Flint Run	RPW	Riverine	R3UB1	39.376133	80.721146	CONSTRUCTION	N/A	0.000[3]	N/A	N/A	N/A	N/A	N/A	N/A	31.065	0.045	31.065	0.045	Cannot reroute around this feature due to the length and nature of the stream.
STREAM 1 3RD CROSSING (PER)	Flint Run	RPW	Riverine	R3UB1	39.372345	80.719516	OPEN-CUT	46.074	N/A	1.340	41.299	N/A	N/A	46.074	0.005	40.000	0.043	35.000	0.037	Cannot reroute around this feature due to the length and nature of the stream.
STREAM 5 (PER)	Brush Run	RPW	Riverine	R3UB1	39.371032	80.718389	OPEN-CUT	25.418	N/A	N/A	N/A	1.506	25.466	29.188	0.003	61.600	0.037	56.600	0.034	Cannot reroute around this feature due to the length and nature of the stream.
STREAM 6 (EPH)	Unnamed Tributary to Flint Run	NRPW	Riverine	R6	39.364028	80.713403	CONSTRUCTION	N/A	0.449	N/A	N/A	N/A	N/A	N/A	N/A	18.100	0.001	18.100	0.001	Cannot reroute around this feature due to adjacent topography. Access road routed through existing road bed.
STREAM 7 (INT)	Unnamed Tributary to Flint Run	RPW	Riverine	R4SB3	39.363549	80.715016	CONSTRUCTION	N/A	8.594	N/A	N/A	N/A	N/A	N/A	N/A	96.276	0.019	96.276	0.019	Cannot reroute around this feature due to adjacent topography. Access road routed through existing road bed.
Stream UNT 2[4] (INT)	Unnamed Tributary to Flint Run	RPW	Riverine	R4SB3	39.372651	80.719788	OPEN-CUT	2.900	N/A	0.084	2.787	N/A	N/A	3.108	0.001	43.349	0.003	38.349	0.003	Cannot reroute around this feature due to the length and nature of the stream.
Stream UNT 3[4] (EPH)	Unnamed Tributary to Flint Run	NRPW	Riverine	R6	39.375285	80.721027	OPEN-CUT	2.330	N/A	0.068	2.090	N/A	N/A	2.330	0.001	40.037	0.002	35.037	0.001	Cannot reroute around this feature due to the length and nature of the stream.
Wetlands																				
WETLAND A	N/A	DELINEATE	DEPRESS	PEM	39.376760	80.722630	OPEN-CUT	N/A	N/A	2.009	61.950	N/A	N/A	N/A	0.008	77.000	0.088	69.293	0.080	Shifting the alignment in this area would result in additional stream and wetland impacts.
WETLAND B	N/A	DELINEATE	DEPRESS	PEM	39.364380	80.715110	CONSTRUCTION	N/A	1.733	N/A	N/A	N/A	N/A	N/A	N/A	18.741	0.008	10.524	0.006	Access road routed through existing road bed.

Notes:

1) Temporary impacts reported above will consist of excavating a ditch 5-feet wide by 5-feet deep across the existing stream channel or wetland. Fill will consist of placing either a 12-inch diameter or a 16-inch diameter pipeline (indicated above) into the ditch and stabilizing the pipeline with compacted native material. Minimal impacts of fill will occur due to nominal loss of native fill during compaction process. Stream banks will be restored to original contours and crossings will be completed within 72 hours to minimize impacts to the stream. BMPs will be placed to minimize sediment transport during construction. If stream flows are excessive, dam and flume crossing methods may be utilized.

2) Construction related disturbances would primarily consist of equipment crossings. Matting will be placed at temporary crossings to minimize vehicular impacts. Stream banks will be restored to orignial contours. No fill will be placed in any of the streams or wetlands (detailed above) at any time during construction activites.
3) Access road and culverts currently exist at this crossing. Temporary impacts may occur if repairs are required due to damage during project use.
4) Data collected by Potesta on October 22, 2012.

5.0 Engineer Drawings



NOTES:

1. MOPA-S001 & MOPA-S006 PIPELINE PROJECT AREA OF INTEREST DELINEATED FROM 09/3/13 THROUGH 09/05/13.
2. TOTAL MOPA-S001 & MOPA-S006 PIPELINE PROJECT AND GESSLER IMPOUNDMENT AREA OF INTEREST = 60.76 AC.

N

LEGEND

- PROPOSED MOPA-S001 & MOPA-S006 PIPELINE PROJECT
- SHEET CUT
- MOPA-S001 & MOPA-S006 PIPELINE PROJECT AREA OF INTEREST
- GESSLER IMPOUNDMENT AREA OF INTEREST
- 2 — SHEET NUMBER

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MOPA-S001 & MOPA-S006 OVERALL KEY MAP (AERIAL)

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT

DODDRIDGE COUNTY — WEST VIRGINIA

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MODIFIED BY: -
CHECKED BY: JBC
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SCALE: NTS

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1 of 16 sheets

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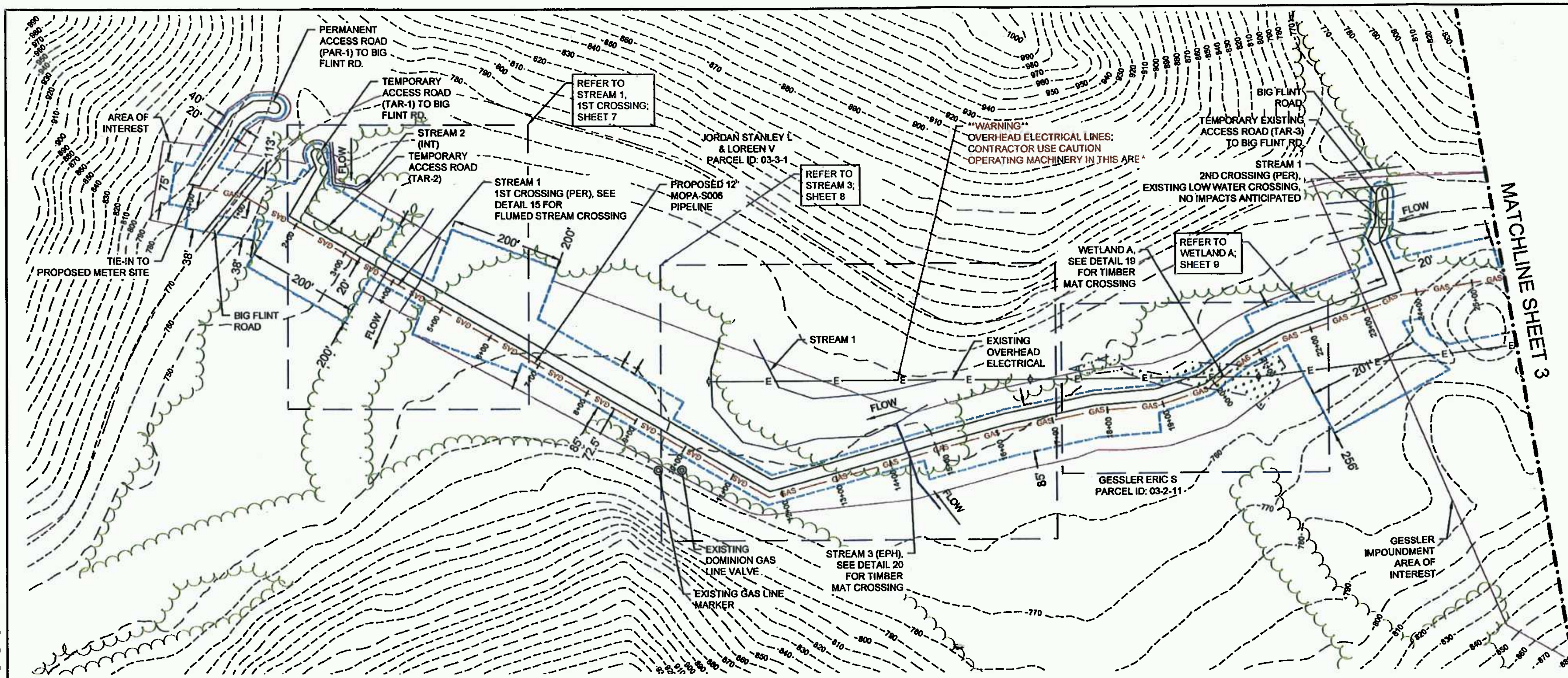
PERMANENT ACCESS ROAD (PAR-1) TO BIG FLINT RD.
TEMPORARY ACCESS ROAD (TAR-1) TO BIG FLINT RD.
REFER TO STREAM 1, 1ST CROSSING; SHEET 7
STREAM 2 (INT)
TEMPORARY ACCESS ROAD (TAR-2)
AREA OF INTEREST
STREAM 1 1ST CROSSING (PER), SEE DETAIL 15 FOR FLUMED STREAM CROSSING
JORDAN STANLEY L & LOREEN V PARCEL ID: 03-3-1
PROPOSED 12" MOPA-S006 PIPELINE
REFER TO STREAM 3; SHEET 8
WARNING OVERHEAD ELECTRICAL LINES; CONTRACTOR USE CAUTION OPERATING MACHINERY IN THIS AREA
BIG FLINT ROAD
TEMPORARY EXISTING ACCESS ROAD (TAR-3) TO BIG FLINT RD.
STREAM 1 2ND CROSSING (PER), EXISTING LOW WATER CROSSING, NO IMPACTS ANTICIPATED
FLOW
WETLAND A, SEE DETAIL 19 FOR TIMBER MAT CROSSING
REFER TO WETLAND A; SHEET 9
MATCHLINE SHEET 3
TIE-IN TO PROPOSED METER SITE
BIG FLINT ROAD
STREAM 1
EXISTING OVERHEAD ELECTRICAL
GESSLER ERIC S PARCEL ID: 03-2-11
EXISTING DOMINION GAS LINE VALVE
EXISTING GAS LINE MARKER
STREAM 3 (EPH), SEE DETAIL 20 FOR TIMBER MAT CROSSING
GESSLER IMPOUNDMENT AREA OF INTEREST

NOTICE TO CONTRACTOR
** WARNING ** WARNING ** WARNING **

UNDERGROUND OR OVERHEAD UTILITIES MAY BE PRESENT AT ROAD CROSSING. CONTRACTOR SHALL FIELD VERIFY UTILITIES PRIOR TO START OF CONSTRUCTION AND SHALL USE CAUTION WHEN USING MACHINERY IN THESE AREAS.

LEGEND

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

SCALE: 1 INCH=100 FEET

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MOPA-S001 & MOPA-S006 PLANS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY, WEST VIRGINIA

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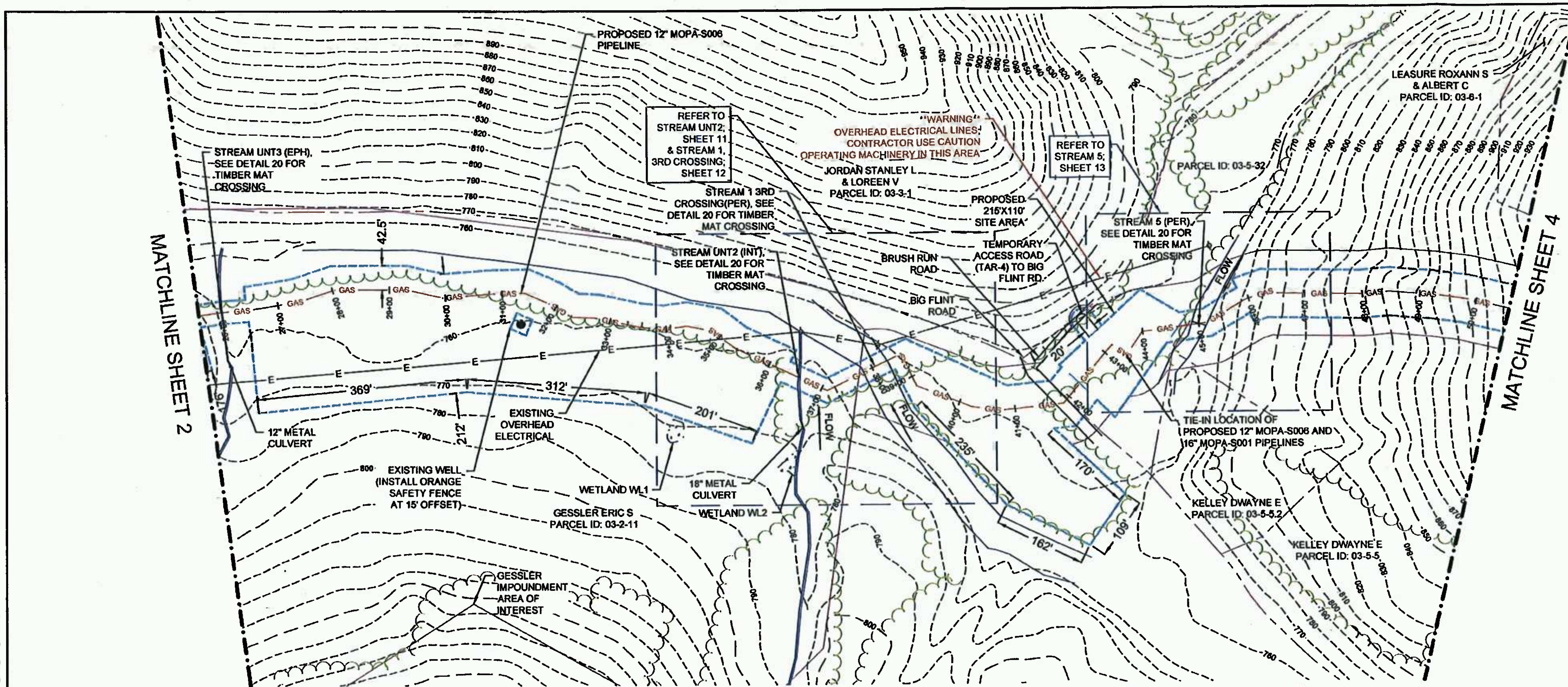

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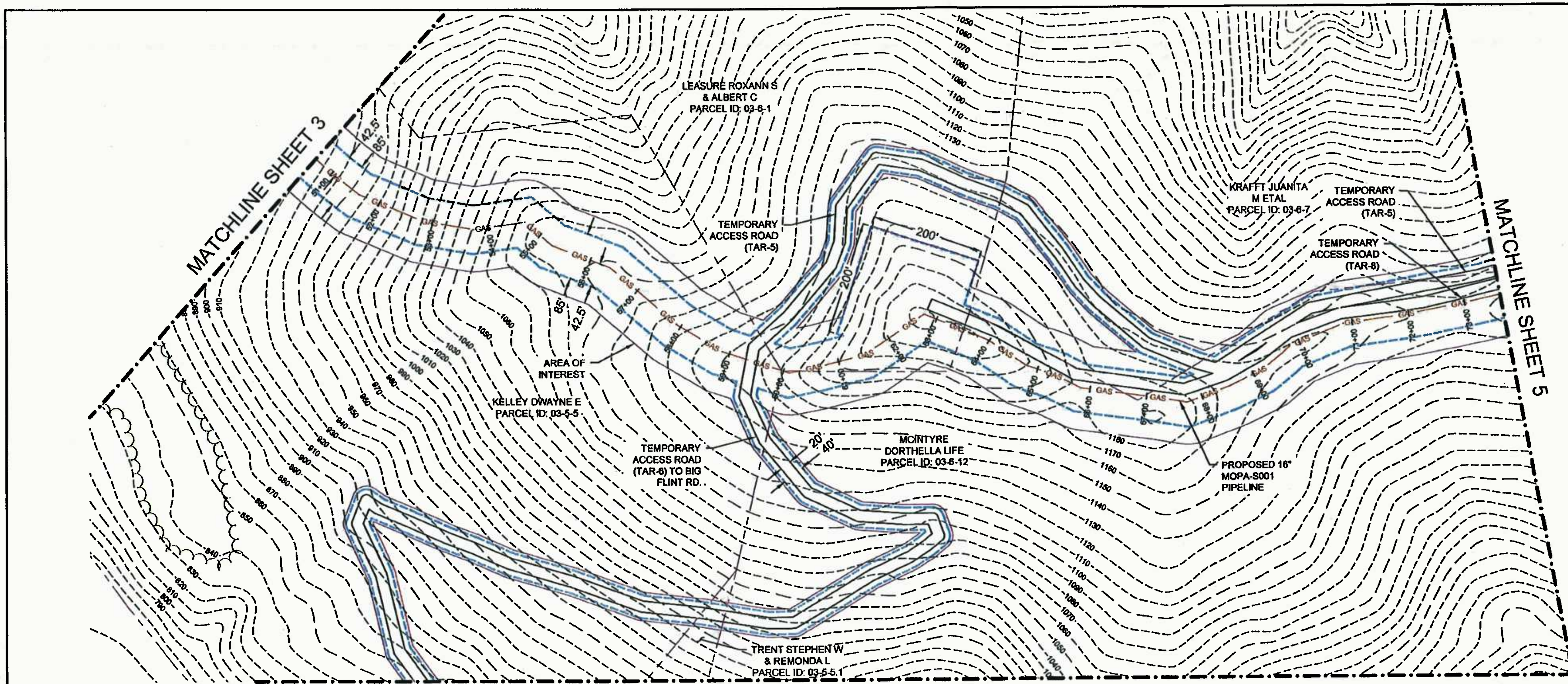

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- EXISTING PROPERTY LINE
- E — E EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- GAS — GAS PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST

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MOPA-S001 & MOPA-S006
PLANS

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MOPA-S001 & MOPA-S006 PIPELINE PROJECT
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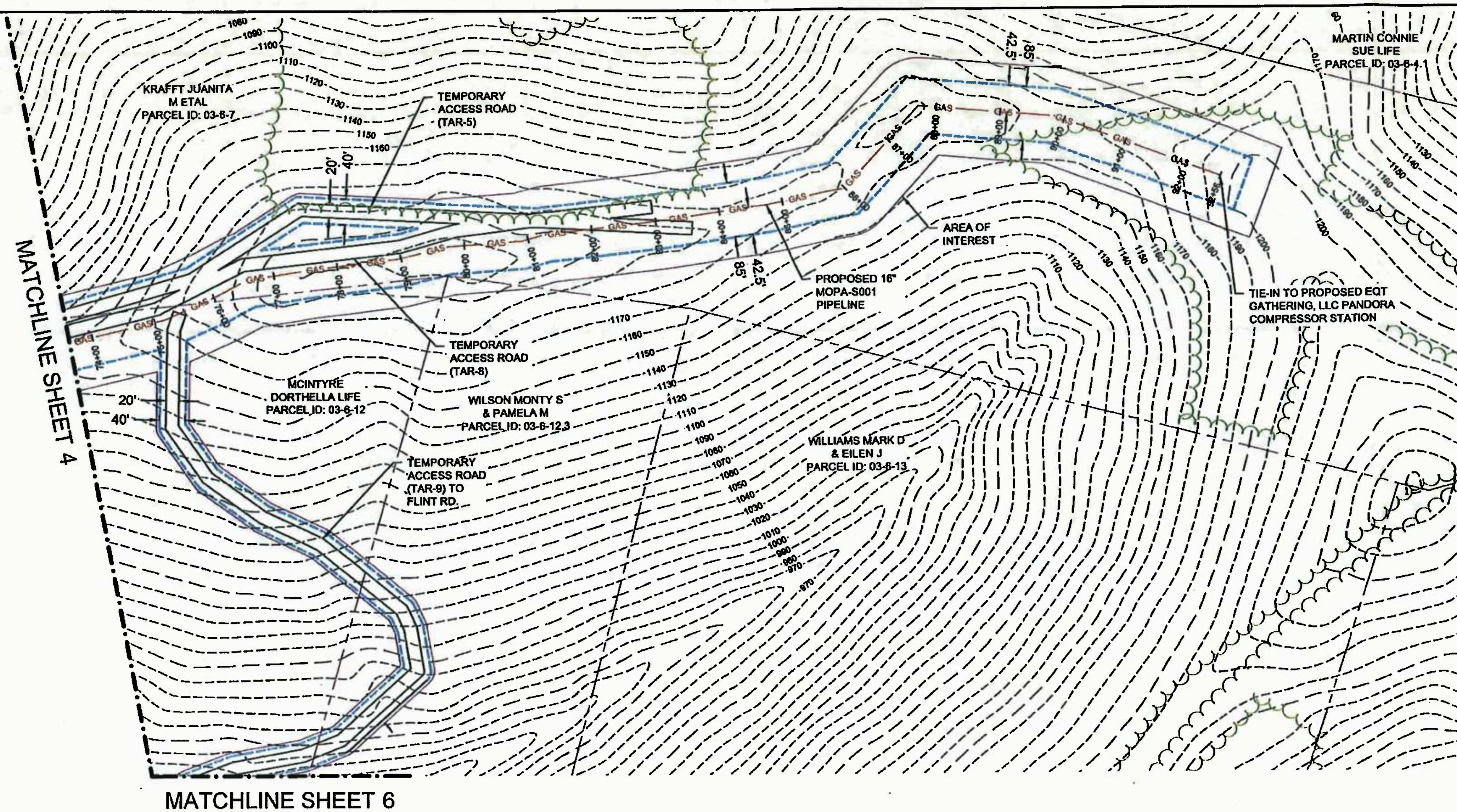

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- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST

100 50 0 100
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5 of 16 sheets

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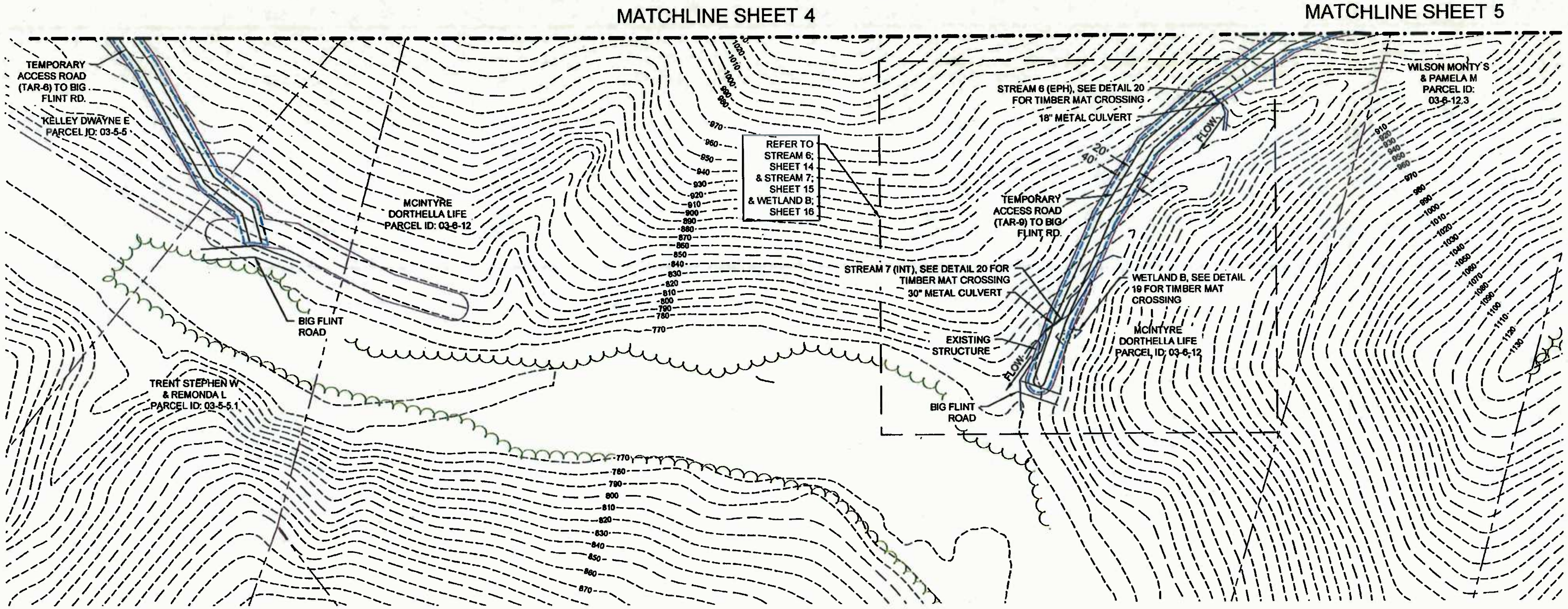

NOTICE TO CONTRACTOR
** WARNING ** WARNING ** WARNING **

UNDERGROUND OR OVERHEAD UTILITIES MAY BE PRESENT AT ROAD CROSSING. CONTRACTOR SHALL FIELD VERIFY UTILITIES PRIOR TO START OF CONSTRUCTION AND SHALL USE CAUTION WHEN USING MACHINERY IN THESE AREAS.

LEGEND

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

SCALE: 1 INCH=100 FEET

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PROJ. NO. 136508
CAD FILE: NW-12_Plans.dwg

MOPA-S001 & MOPA-S006 PLANS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY WEST VIRGINIA

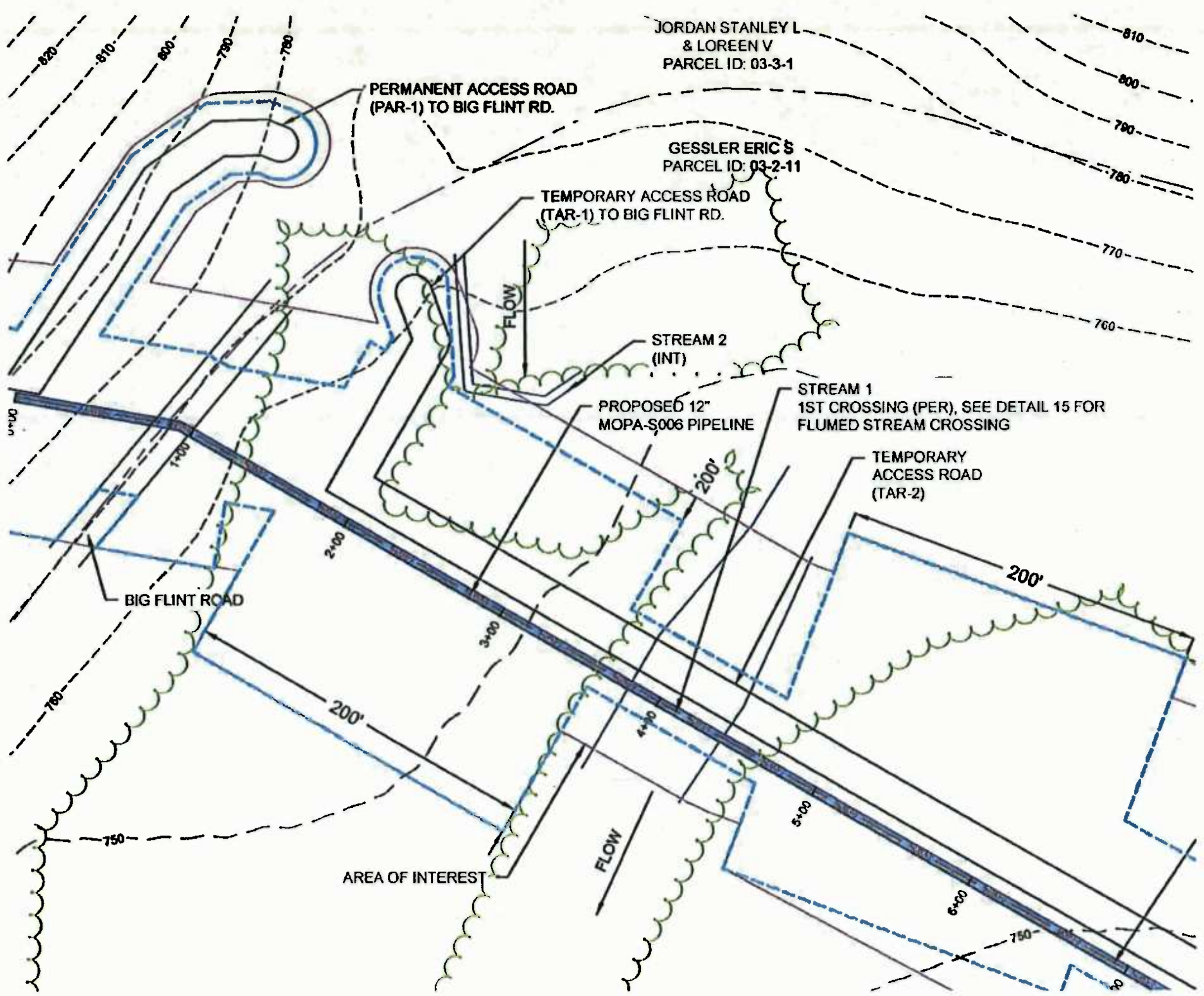
DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE: ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

NWP-12

6

6 of 18 sheets

PLOTTED: 20 Nov 2013, 2:19pm, smarvel

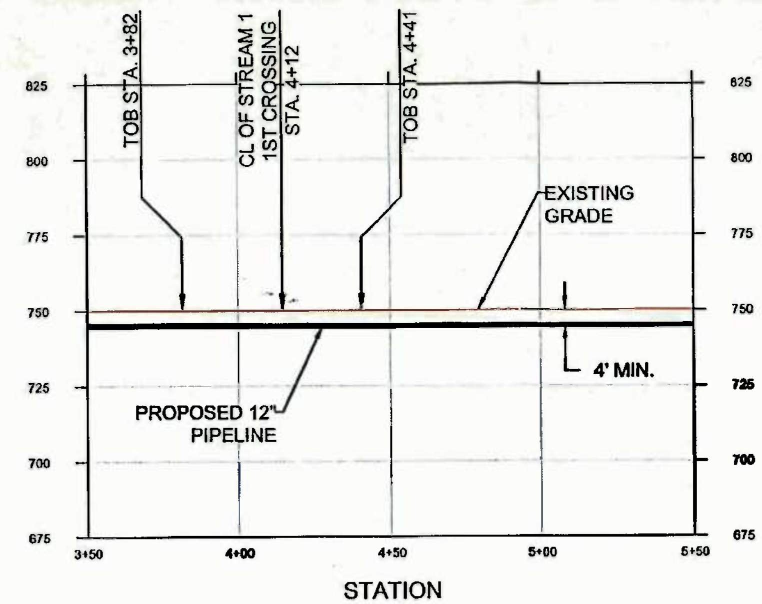


STREAM 1 - 1ST CROSSING DESIGNATION: PERENNIAL

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

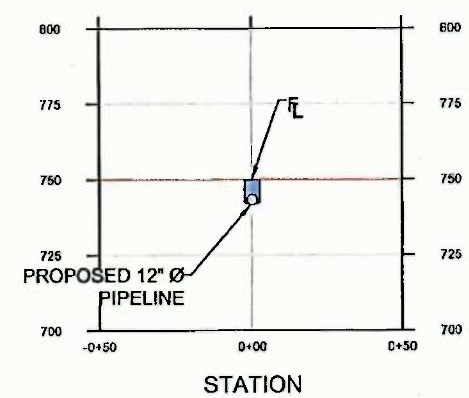
PLAN VIEW
SCALE : 1" = 50'

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



PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM 1
1ST CROSSING
4+12



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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED TRENCHING

SEAL: THOMAS WELLS WOODROW, JR. REGISTERED 19684 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE
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2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

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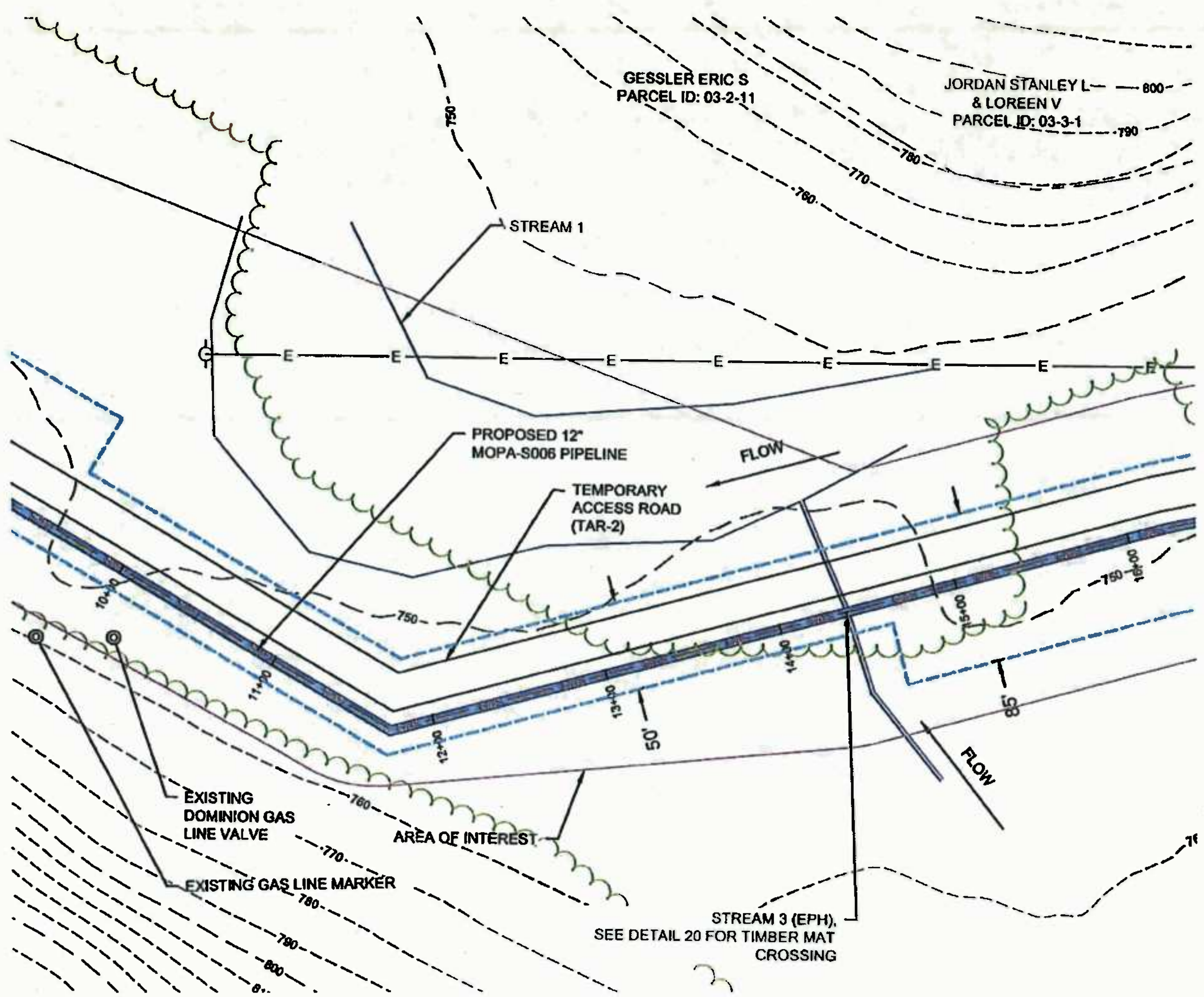
PROJ. NO. 136508
ACAD FILE: NW-12_Crossing Details.dwg

MOPA-S001 & MOPA-S006
STREAM 1 - 1ST CROSSING DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY WEST VIRGINIA

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12
7
7 of 16 sheets

PLOTTED: 20 Nov 2013, 2:20pm, smarvel

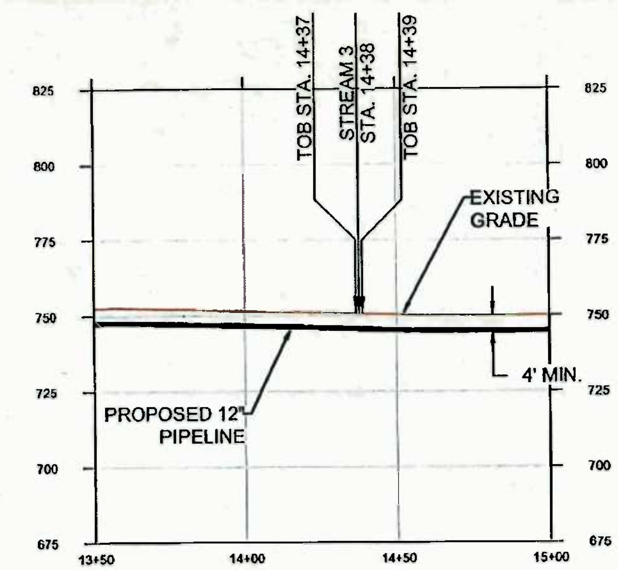


PLAN VIEW
SCALE : 1" = 50'

STREAM 3 DESIGNATION: EPHEMERAL

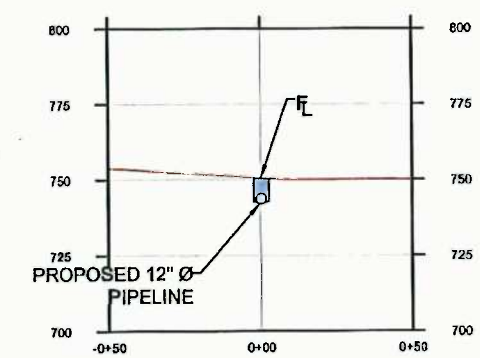
PROPOSED METHOD OF CONSTRUCTION:
OPEN CUT CROSSING (DRY CROSSING)

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



PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM 3
CROSSING
14+38



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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED TRENCHING

THOMAS WELLS WOODROW, JR.
REGISTERED
19684
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
SEAL

NO.	REVISION	BY	DATE
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

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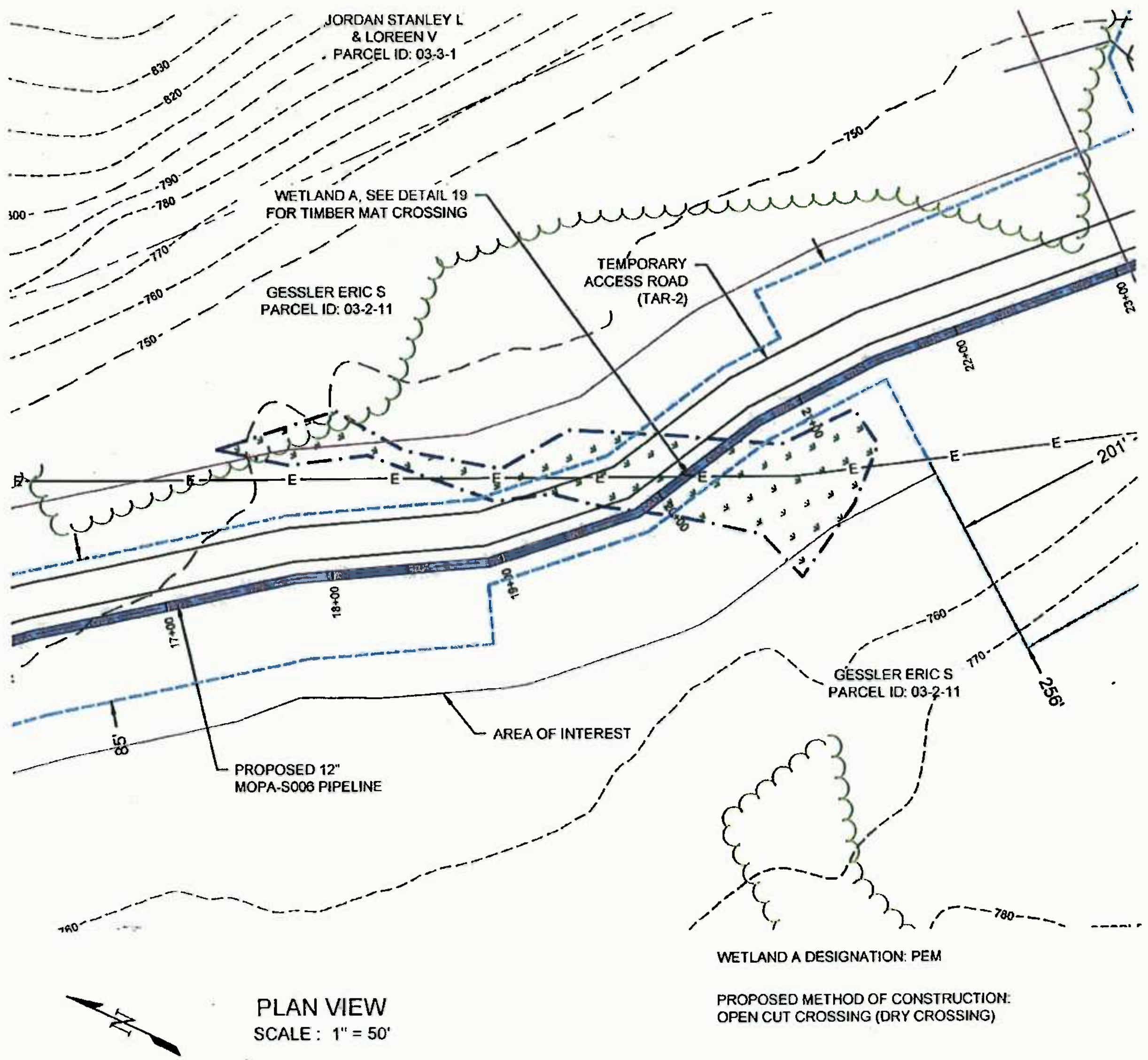
MOPA-S001 & MOPA-S006
STREAM 3 CROSSING DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY
WEST VIRGINIA

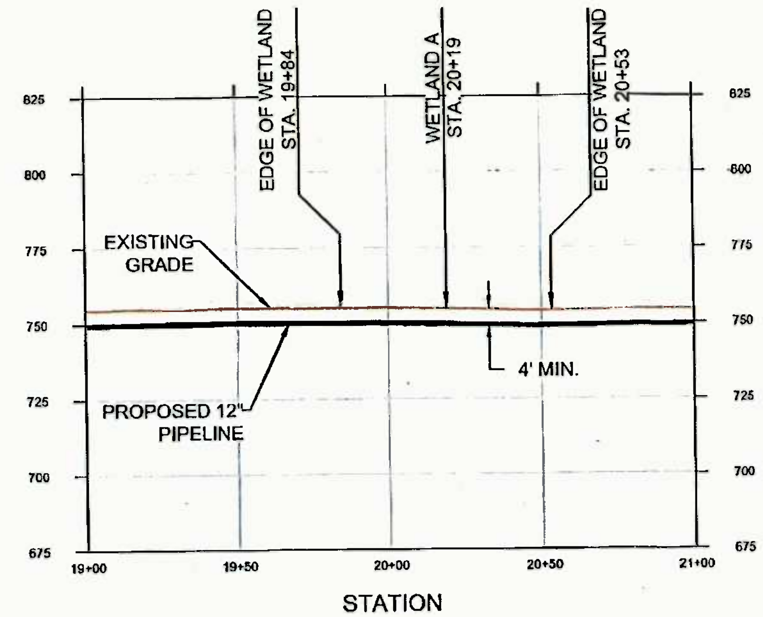
DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12
8
8 of 16 sheets

PLOTTED: 20 Nov 2013, 2:20pm, smorvel



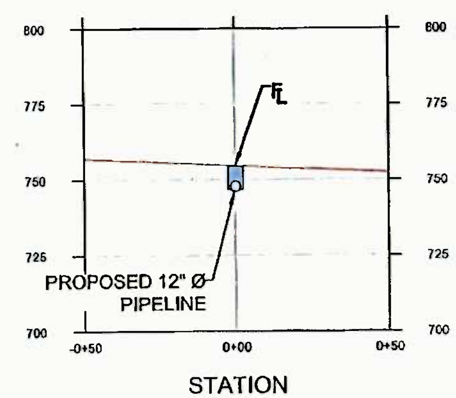
PLAN VIEW
SCALE : 1" = 50'

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



PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

WETLAND A
CROSSING
20+19



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

LEGEND

Symbol	Description
	EXISTING INDEX CONTOUR (50')
	EXISTING INTERMEDIATE CONTOUR (10')
	EXISTING ROAD
	EXISTING TREE LINE
	EXISTING PROPERTY LINE
E — E	EXISTING ELECTRICAL
	PROPOSED PROJECT BOUNDARY
GAS — GAS	PROPOSED PIPELINE
	DELINEATED STREAM
	DELINEATED WETLAND
	DELINEATED WETLAND AREA
	AREA OF INTEREST
	PROPOSED TRENCHING

THOMAS WELLS WOODROW JR. REGISTERED 19684 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE

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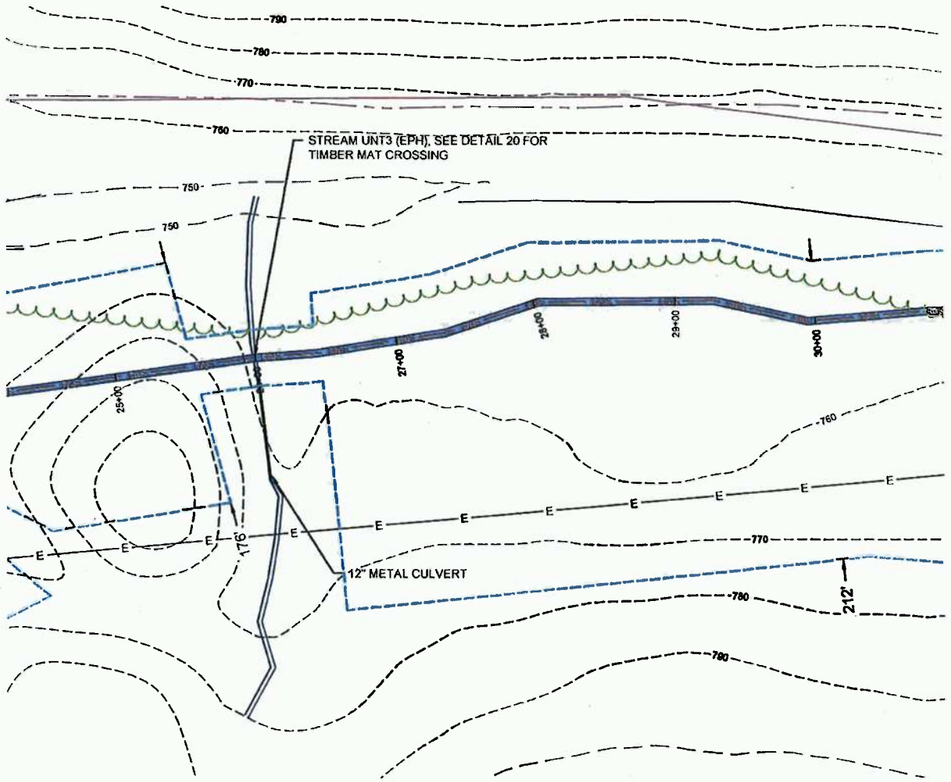
MOPA-S001 & MOPA-S006
WETLAND A CROSSING DETAILS
EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY
WEST VIRGINIA

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
NWP-12
9
9 of 16 sheets

PLOTTED: 20 Nov 2013, 2:20pm, smarvel

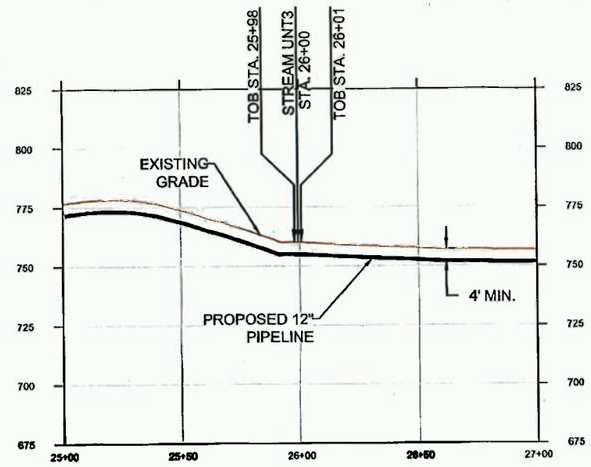


PLAN VIEW
SCALE : 1" = 50'

STREAM UNT3 DESIGNATION: EPHEMERAL

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

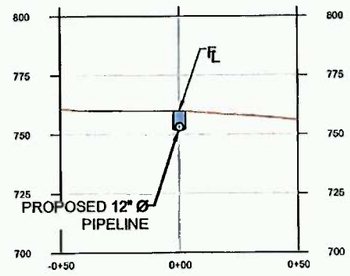
NOTES:
1. CONTRACTOR SHALL MAINTAIN 4' MIN. COVER AT WETLAND AND STREAM CROSSINGS UNLESS DIRECTED OTHERWISE BY EQT.



STATION

PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM UNT3
CROSSING
26+00



STATION

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

LEGEND

— — — — — —	EXISTING INDEX CONTOUR (50')
- - - - - - - -	EXISTING INTERMEDIATE CONTOUR (10')
———————	EXISTING ROAD
⌒⌒⌒⌒⌒⌒	EXISTING TREE LINE
— - - — - - —	EXISTING PROPERTY LINE
——E——E——	EXISTING ELECTRICAL
- - - - - - - -	PROPOSED PROJECT BOUNDARY
—— GAS —— GAS ——	PROPOSED PIPELINE
———————	DELINEATED STREAM
-·-·-·-·-·-	DELINEATED WETLAND
▨	DELINEATED WETLAND AREA
———————	AREA OF INTEREST
🟦	PROPOSED TRENCHING

THOMAS WELLS WOODROW, JR.
19684

NO.	REVISION	BY	DATE
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△		-	-
△		-	-
△		-	-
△		-	-

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ACAD FILE: NW-12_Crossing Details.dwg

MOPA-S001 & MOPA-S006 STREAM UNT3 CROSSING DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY WEST VIRGINIA

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12
10
10 of 16 sheets

PLOTTED: 20 Nov 2013, 2:20pm, smarvel

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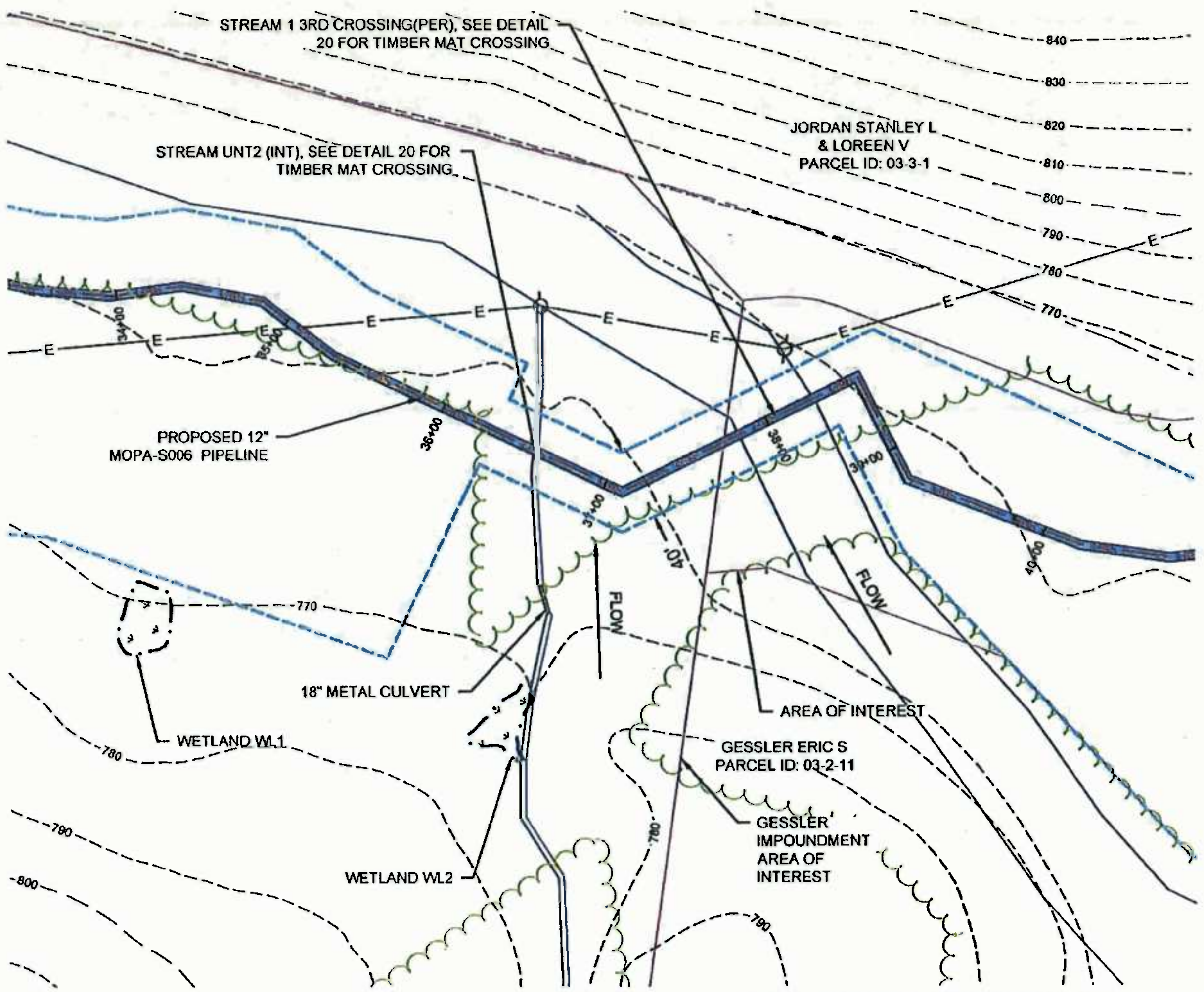
ATTACHED XREFS: XRef: NWP-12_Title Block: XRef: Xref_MOPA_Permit Base: XRef: Xref_MOPA_Base: XRef: Xref_MOPA_Property Lines: XRef: Xref_MOPA_Survey: XRef: MOPA_S001_S006_BioSurvey
CAD FILE: G:_clients\EQT Gathering LLC\MOPA\S001\Design\Civil\NWP-12\ LAYOUT: 10 STREAM UNT3 CROSSING DETAILS

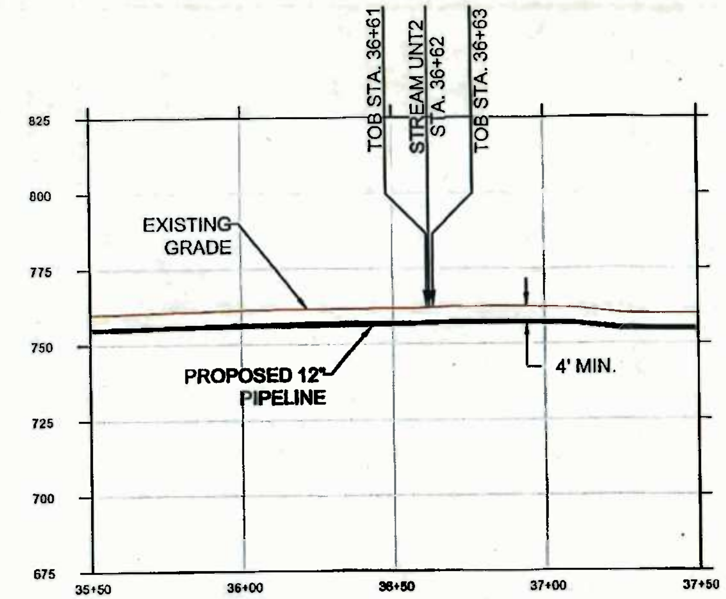


STREAM UNT2 DESIGNATION: INTERMITTENT

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

PLAN VIEW
SCALE : 1" = 50'

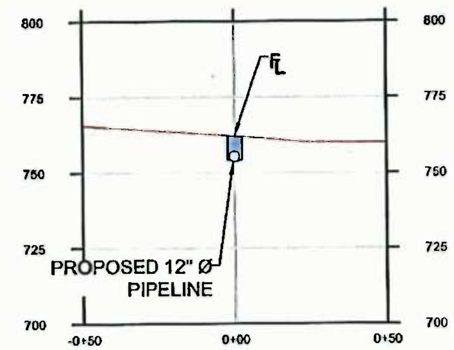
NOTES:
1. CONTRACTOR SHALL MAINTAIN 4' MIN. COVER AT WETLAND AND STREAM CROSSINGS UNLESS DIRECTED OTHERWISE BY EQT.



STATION

PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM UNT2
CROSSING
36+62



STATION

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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED TRENCHING

THOMAS WELLS WOODROW JR. REGISTERED 19684 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER
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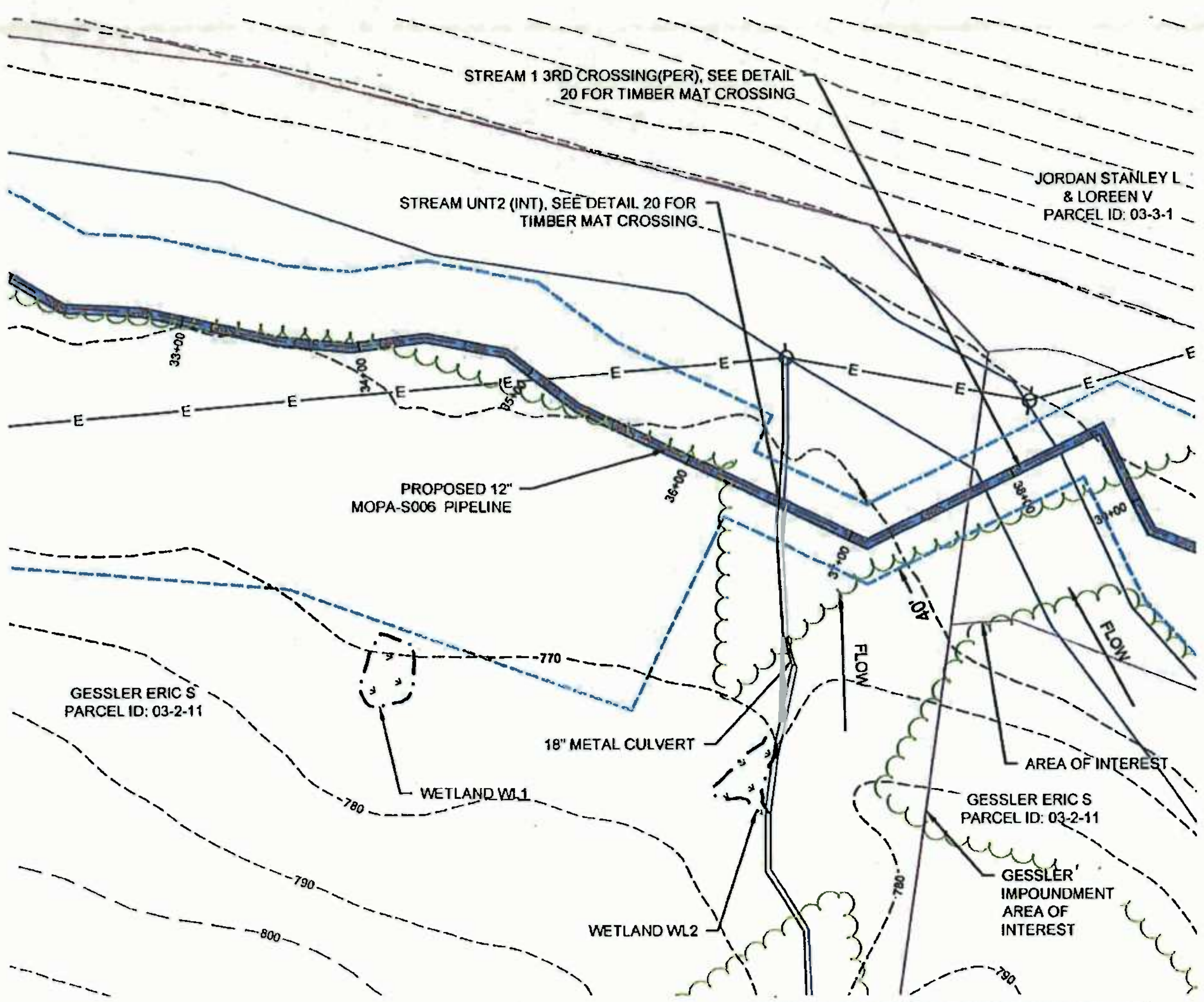
MOPA-S001 & MOPA-S006
STREAM UNT2 CROSSING
DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY WEST VIRGINIA

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12
11
11 of 16 sheets

PLOTTED: 20 Nov 2013, 2:21pm, smarvel

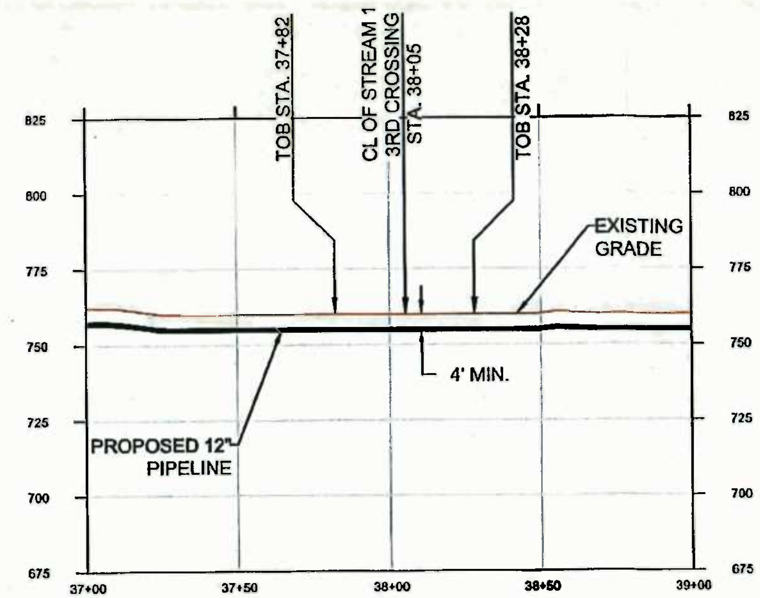


STREAM 1 - 3RD CROSSING DESIGNATION: PERENNIAL

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

PLAN VIEW
SCALE : 1" = 50'

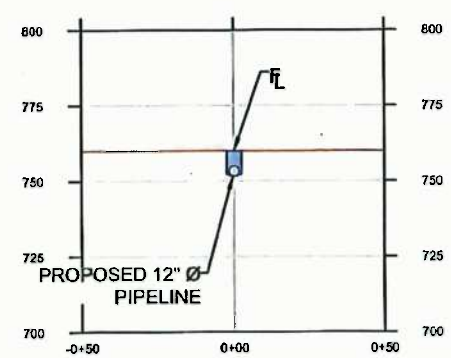
NOTES:
1. CONTRACTOR SHALL MAINTAIN 4' MIN. COVER AT WETLAND AND STREAM CROSSINGS UNLESS DIRECTED OTHERWISE BY EQT.



STATION

PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM 1
3RD CROSSING
38+05



STATION

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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED TRENCHING

THOMAS WELLS WOODROW, JR.
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NO.	REVISION	BY	DATE
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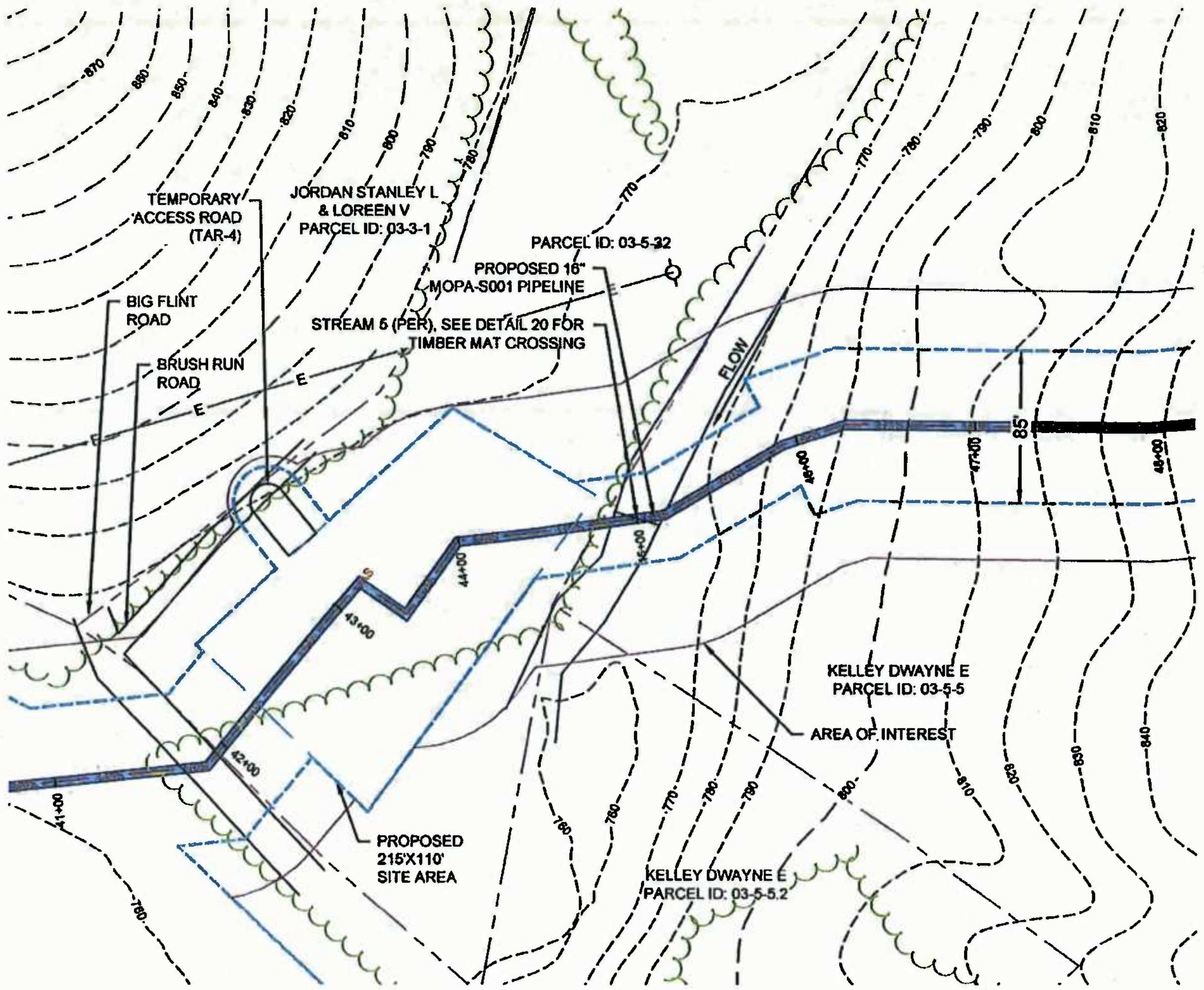
ACAD FILE: NW-12_Crossing Details.dwg

MOPA-S001 & MOPA-S006 STREAM 1 - 3RD CROSSING DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY WEST VIRGINIA

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12
12
12 of 16 sheets

PLOTTED: 20 Nov 2013, 2:21pm, smarvel

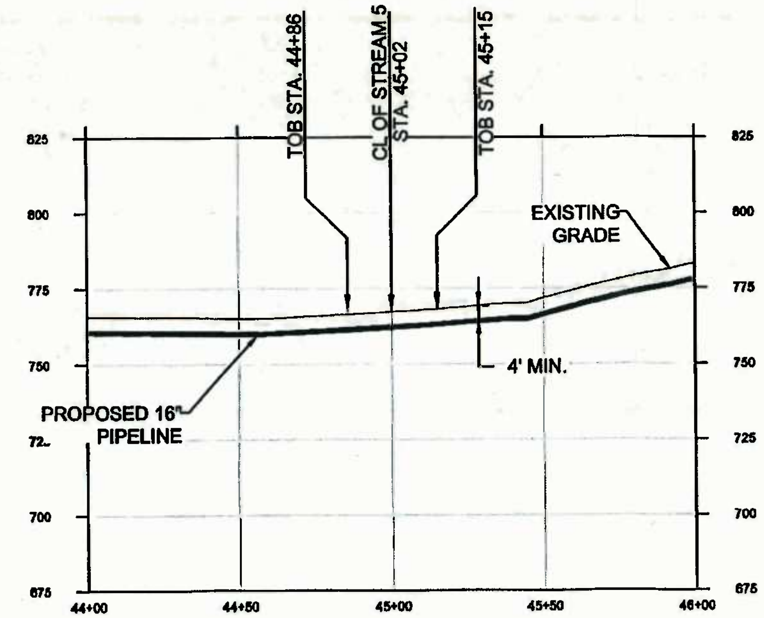


STREAM 5 DESIGNATION: PERENNIAL

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

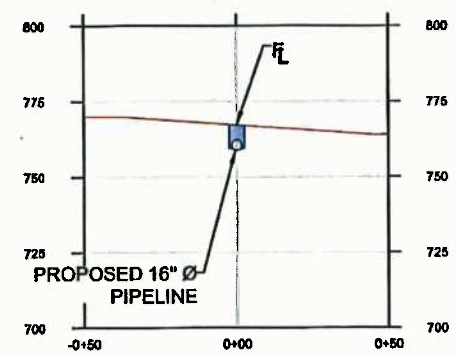
PLAN VIEW
SCALE : 1" = 50'

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



PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM 5
CROSSING
45+02



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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED PIPELINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED TRENCHING

THOMAS WELLS WOODROW, JR.
REGISTERED
19684
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

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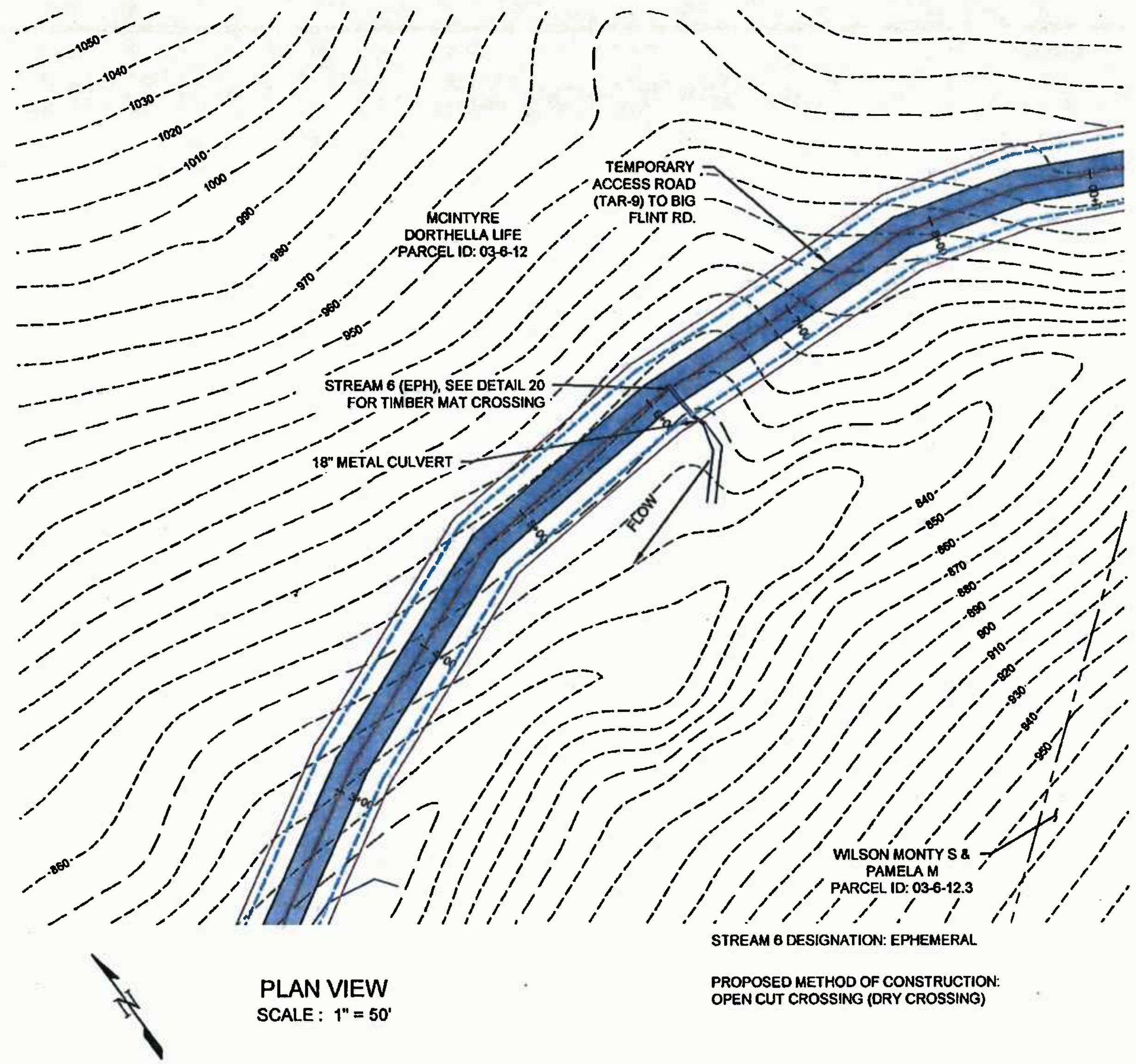
MOPA-S001 & MOPA-S006
STREAM 5 CROSSING DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY WEST VIRGINIA

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12

13
13 of 16 sheets

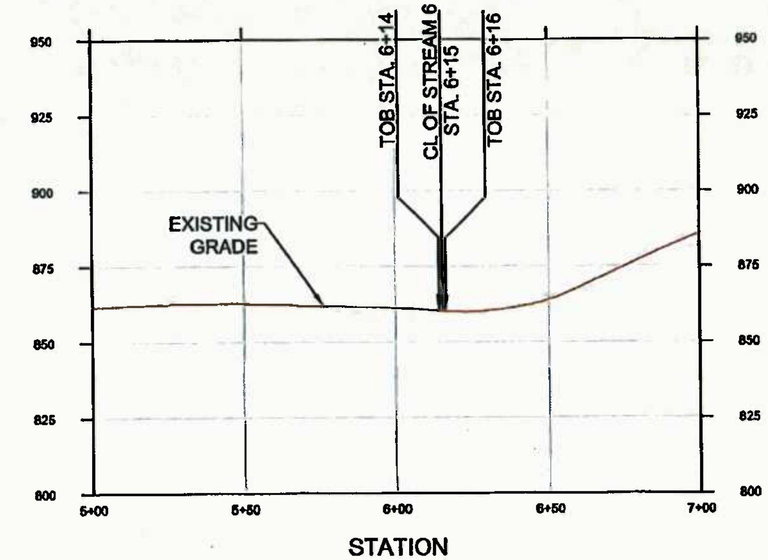
PLOTTED: 20 Nov 2013, 2:21pm



STREAM 6 DESIGNATION: EPHEMERAL

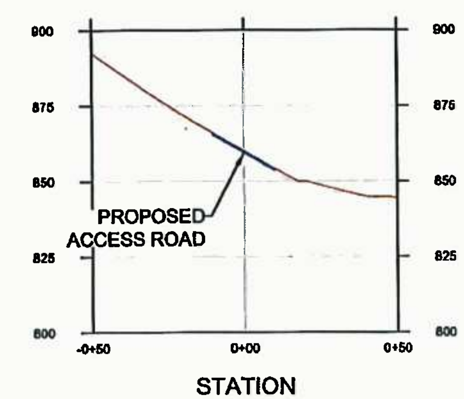
PLAN VIEW
SCALE: 1" = 50'

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



PROFILE
VERTICAL SCALE: 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM 6
CROSSING
6+15



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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED ACCESS ROAD CENTERLINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED ACCESS ROAD

NO.	REVISION	BY	DATE
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

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PROJ. NO. 135506
ACAD FILE: NW-12_Crossing Details.dwg

MOPA-S001 & MOPA-S006
STREAM 6 CROSSING DETAILS

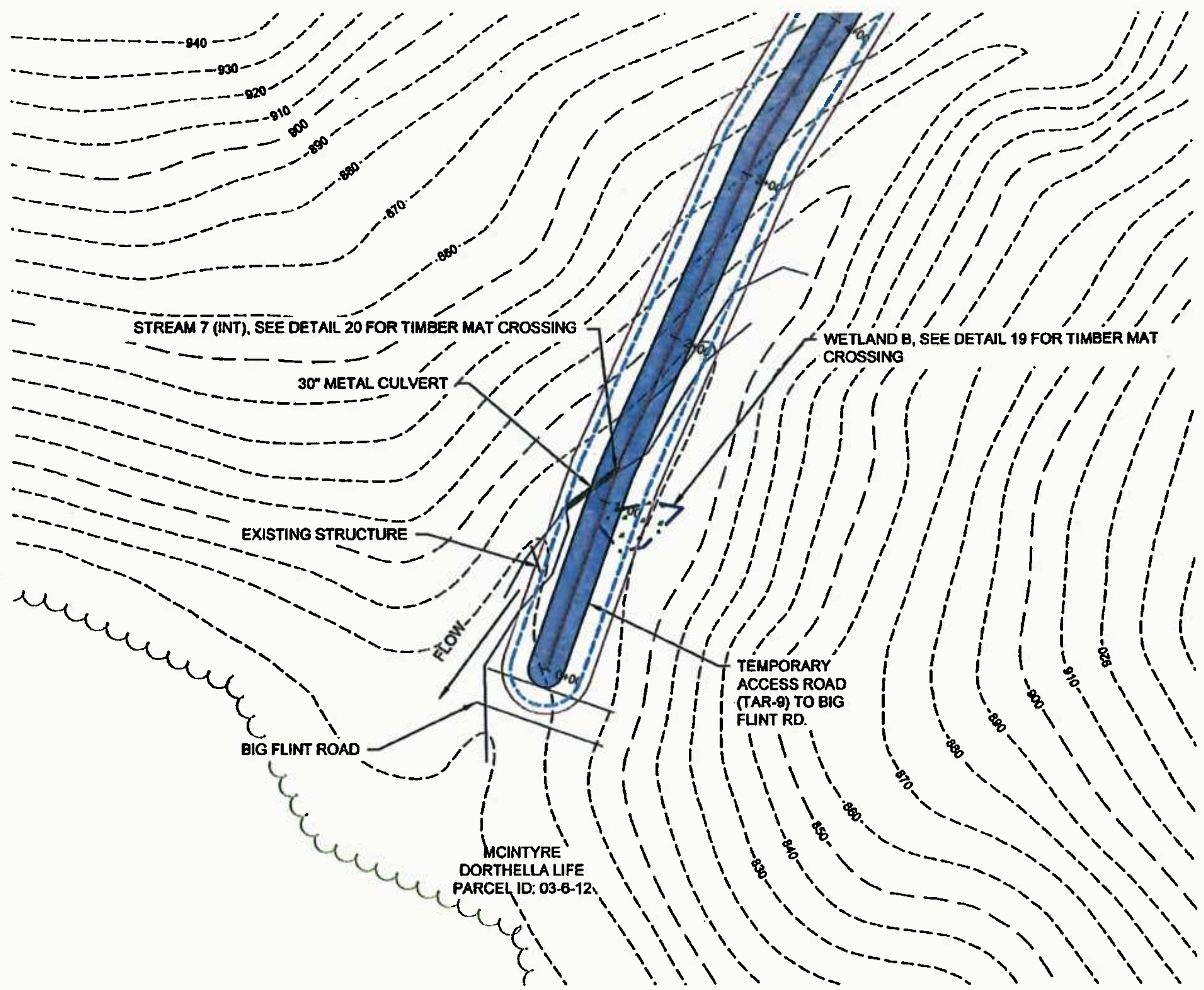
EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY
WEST VIRGINIA

THOMAS WELLS WOODROW, JR.
REGISTERED
19684
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
SEAL

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12

14
14 of 16 sheets

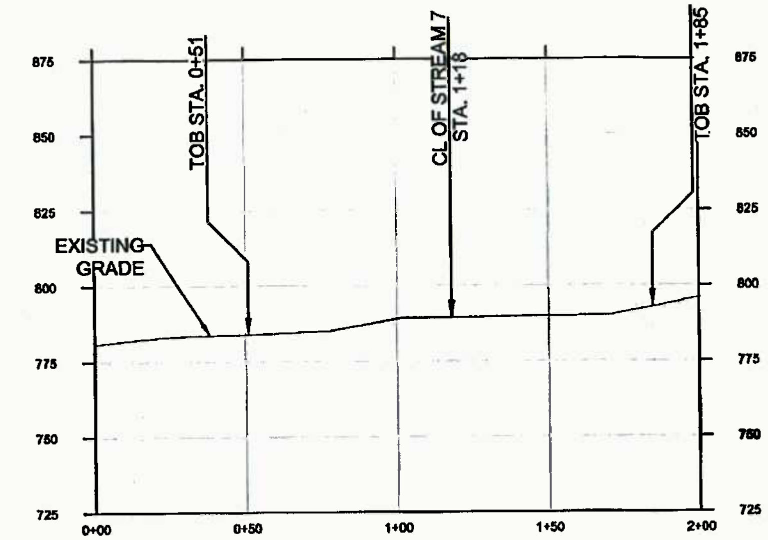
PLOTTED: 20 Nov 2013, 2:21pm, smarvel



STREAM 7 DESIGNATION: INTERMITTENT

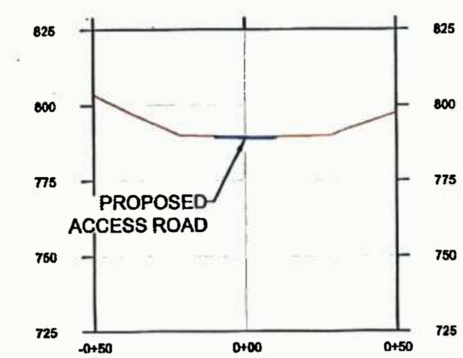
PROPOSED METHOD OF CONSTRUCTION: OPEN CUT CROSSING (DRY CROSSING)

PLAN VIEW
SCALE : 1" = 50'



PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

STREAM 7 CROSSING 1+18



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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED ACCESS ROAD CENTERLINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED ACCESS ROAD

NO.	REVISION	BY	DATE
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

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MOPA-S001 & MOPA-S006
STREAM 7 CROSSING DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT

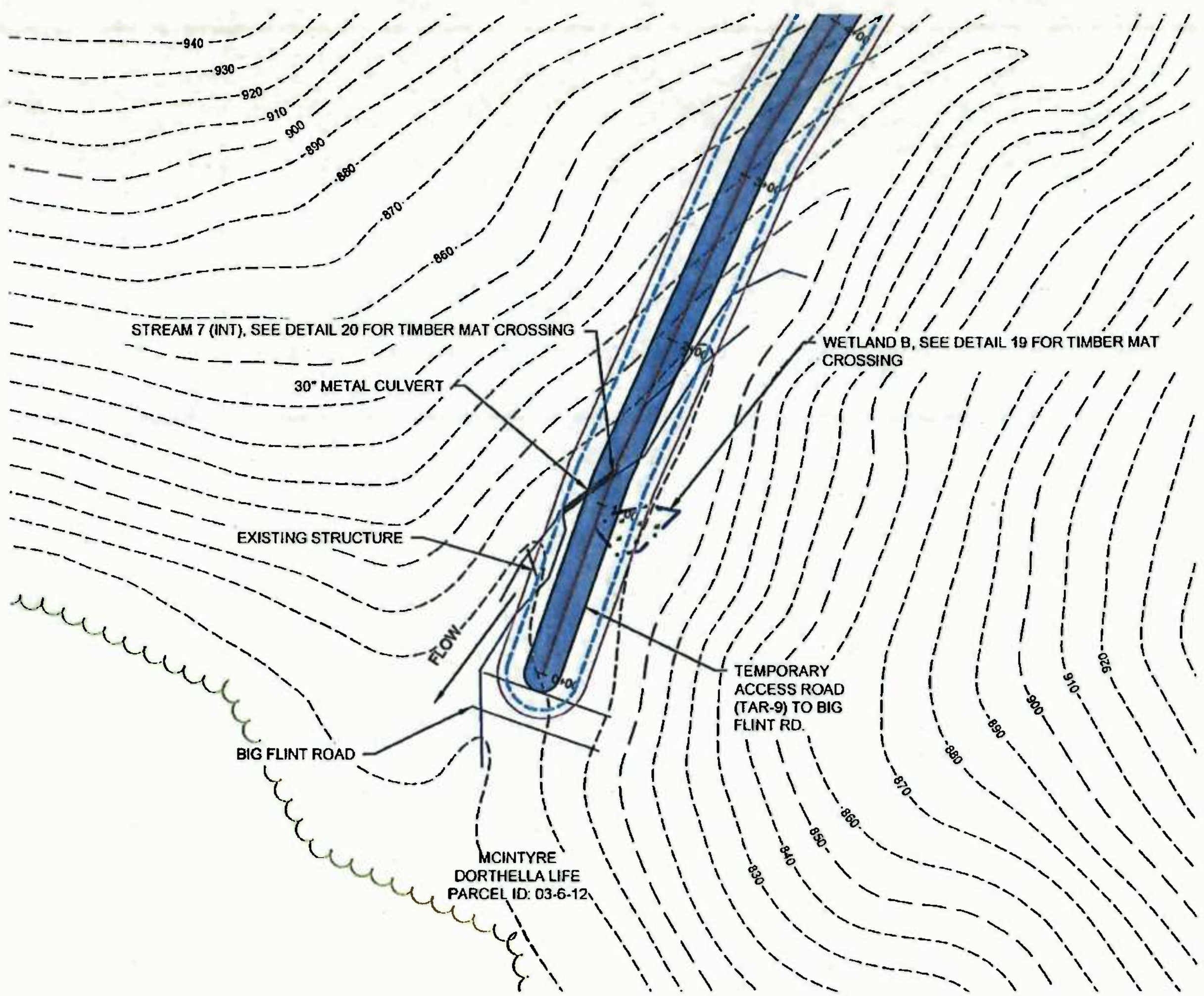
DODDRIDGE COUNTY
WEST VIRGINIA

THOMAS WELLS WOODROW JR.
REGISTERED
19684
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
SEAL

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0

NWP-12
15
15 of 16 sheets

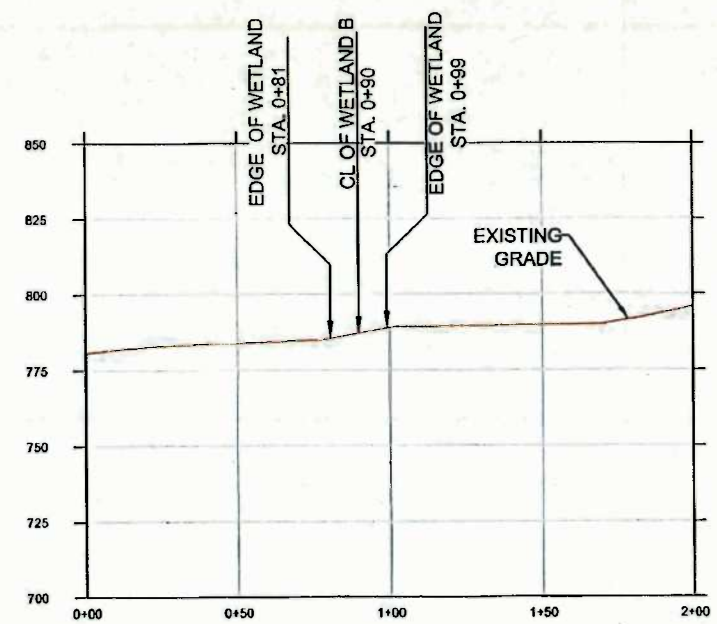
PLOTTED: 20 Nov 2013, 2:21pm, smarvel



PLAN VIEW
SCALE : 1" = 50'

WETLAND B DESIGNATION: PEM

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



STATION

PROFILE
VERTICAL SCALE : 1" = 30'
HORIZONTAL SCALE: 1" = 30'

WETLAND B
CROSSING
0+90

STATION

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

LEGEND

- EXISTING INDEX CONTOUR (50')
- EXISTING INTERMEDIATE CONTOUR (10')
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- EXISTING ELECTRICAL
- PROPOSED PROJECT BOUNDARY
- PROPOSED ACCESS ROAD CENTERLINE
- DELINEATED STREAM
- DELINEATED WETLAND
- DELINEATED WETLAND AREA
- AREA OF INTEREST
- PROPOSED ACCESS ROAD

NO.	REVISION	BY	DATE
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

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CAD FILE: NW-12_Crossing Details.dwg

MOPA-S001 & MOPA-S006
WETLAND B CROSSING DETAILS

EQT GATHERING, LLC
MOPA-S001 & MOPA-S006 PIPELINE PROJECT
DODDRIDGE COUNTY
WEST VIRGINIA

THOMAS WELLS WOODROW JR.
REGISTERED
19684
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
SEAL

DESIGNED BY: SAM
MODIFIED BY: -
CHECKED BY: JBC
DATE: 11-14-2013
SCALE:
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
0 0.5 1.0 1.5 2.0
NWP-12

16
16 of 16 sheets

6.0 Permit Requirements

The proposed temporary impacts associated with the Project would be covered by a NWP-12. A PCN is required for the proposed project and a Preliminary Jurisdictional Determination is requested.

A Stream Activity Application for coverage under a Right-of-Entry Permit will be submitted to the WV Division of Natural Resources (WVDNR). As part of the Stream Activity Application process a permit application will be filed with the Doddridge County Floodplain Coordinator.

No isolated wetland impacts are proposed, therefore consultation/approval from the West Virginia Department of Natural Resources – Division of Water and Waste Management (WVDEP-DWWM) is not required. The proposed project does not require Individual 401 certification through the WVDEP.

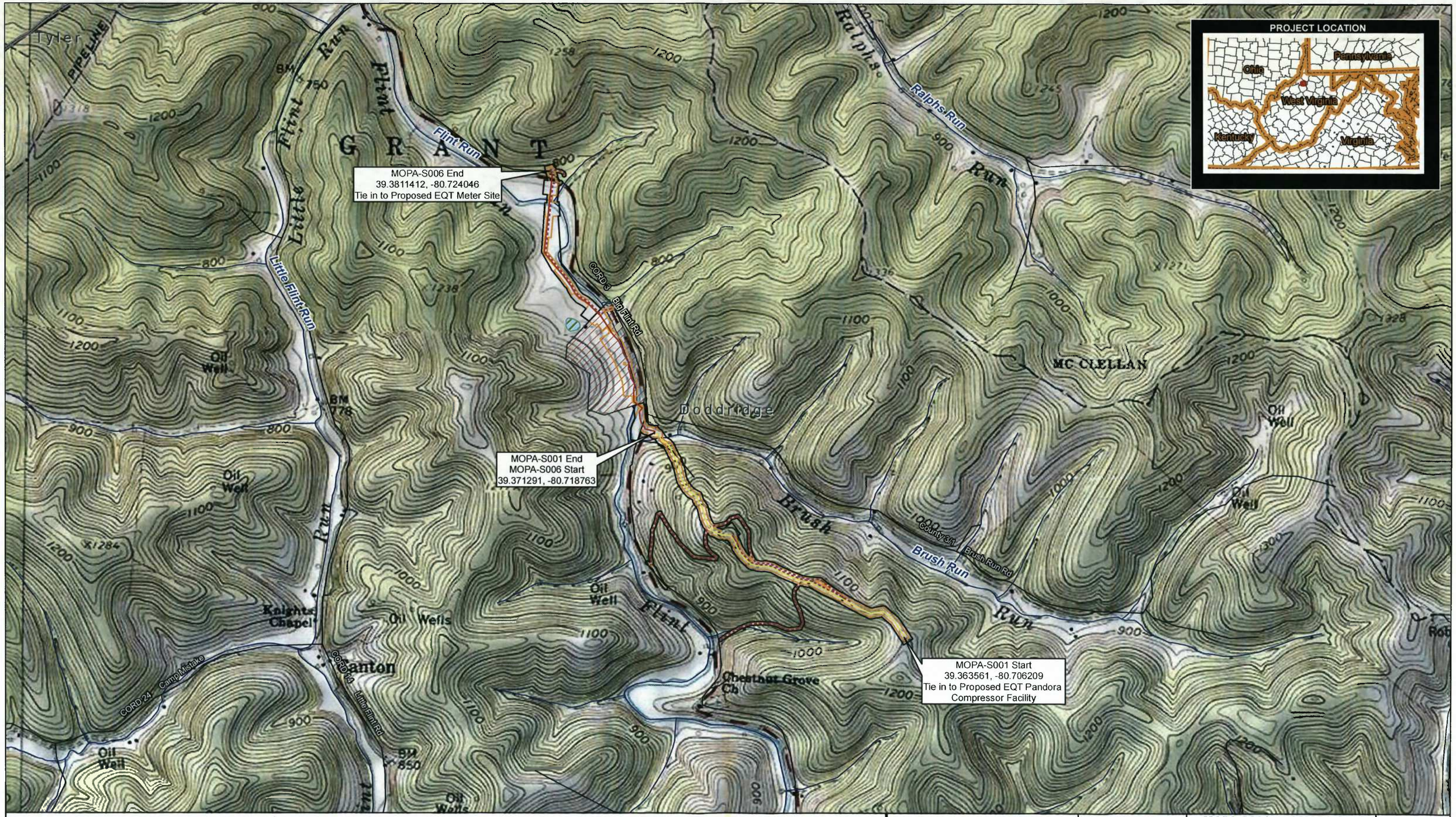
A General Water Pollution Control Permit for Stormwater (GWPCP) is required and will be submitted electronically to WVDEP.

Rare, threatened and endangered (RTE) species consultation letters were submitted to the USFWS and the WVDNR on September 26, 2013. The proposed project will cross one (1) state listed mussel stream (Flint Run). A mussel survey was conducted on September 24, 2013 for each of the proposed crossings of Flint Run and no mussels were observed. The results of the mussel survey were provided in a report to WVDNR on October 29, 2013. Since a request to conduct winter clearing was made, no additional consultation is anticipated for this project. Final concurrence from USFWS was received in a letter dated October 17, 2013. Final concurrence from WVDNR is pending, and expected by November 28, 2013. No further consultation is expected.

Cultural Resource Analysts, Inc. (CRA), conducted a literature review at the WV Division of Culture and History (WVDCH) office for the proposed project site. Based on the results of the desktop analysis, the proposed project will have no effect on any recorded archeological sites, architectural resources or historic-period cemeteries listed on or determined eligible to the National Register of Historic Places. No further archeological assessment is recommended for the survey area. A report summarizing the results was provided to the WVDCH by CRA on October 14, 2013. In a letter dated November 5, 2013, WVDCH requested the performance of a Phase I archeological survey. The results will be reported to WVDCH and a copy of the concurrence letter will be provided to ACOE.

FIGURES

Figure 1 General Vicinity Map
Figure 2 Jurisdictional Features Map
Figure 3 Soils Map



0 0.15 0.3 0.6 Miles

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Base map from ESRI Online Maps. USGS 1:24000 Center Point and Smithburg Topographic Quad

Legend

- MOPA-S001 Alignment
- MOPA-S006 Alignment
- MOPA-S001 & MOPA-S006 Access Roads
- Area of Interest
- MOPA-S001 & MOPA-S006 ROW
- AOI Delineated by Potesta for Gessler Impoundment
- NHD Stream
- NWI Wetlands
- Existing Road

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PROJECT NO.	136508
DRAWN:	11/15/2013
DRAWN BY:	B. McDavid
CHECKED BY:	H. Krepsik
FILE NAME:	MOPA_001006_Vicinity.mxd

MOPA-S001 and MOPA-S006 Pipeline Project

EQT Gathering, LLC
Doddridge County, West Virginia
General Vicinity Map

FIGURE
1

0 0.075 0.15 0.3 Miles

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Base map from ESRI Online Maps. USGS 1:24000 Center Point and SmithburgTopographic Quad

Legend

- MOPA-S001 Alignment
- MOPA-S006 Alignment
- MOPA-S001 & MOPA-S006 ROW
- MOPA-S001 & MOPA-S006 Access Roads
- Area of Interest
- AOI Delineated by Potesta for Gessler Impoundment
- Potesta Delineated Streams
- Potesta Delineated Wetlands
- Delineated Wetlands
- Delineated Streams
- NWI Wetlands
- NHD Stream
- Existing Road

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PROJECT NO.	136027
DRAWN:	11/15/2013
DRAWN BY:	B. Carlin
CHECKED BY:	N.Peace
FILE NAME:	MOPA_001006_JurisdictionalFeatures.mxd

MOPA-S001 and MOPA-S006 Pipeline Project

EQT Gathering, LLC
Doddridge County, West Virginia
Jurisdictional Features Map

FIGURE
2

0 375 750 1,500 Feet

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Base map from ESRI Online Maps. USGS 1:24000 Center Point and SmithburgTopographic Quad

Legend

- MOPA-S001 Alignment
- MOPA-S006 Alignment
- MOPA-S001 & MOPA-S006 ROW
- MOPA-S001 & MOPA-S006 Access Roads
- NHD Stream
- Existing Road

Soils Data

- Non-Hydric
- Hydric

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PROJECT NO.	136508
DRAWN:	11/15/2013
DRAWN BY:	B. Carlin
CHECKED BY:	H. Krepsik
FILE NAME:	MOPA_001006_Soils.mxd

MOPA-S001 and MOPA-S006 Pipeline Project

EQT Gathering, LLC
Doddridge County, West Virginia
Soils Map

FIGURE
3

ATTACHMENT A

Wetland Delineation Data Sheets

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MOPA S007/S006 City/County: Doddridge Co. Sampling Date: 9/3/13
Applicant/Owner: EQT Gathering LLC State: WV Sampling Point: A
Investigator(s): E. McClung Section, Township, Range:
Landform (hillslope, terrace, etc.): valley Local relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR or MLRA): LRR N Lat: 39.37676 Long: -80.72263 Datum: NAD83
Soil Map Unit Name: NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks: Groundwater seepage wetland within a fallow valley field.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✓ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✓	Depth (inches): ____
Water Table Present?	Yes ____	No ✓	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✓	No ____	Depth (inches): 8

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: A

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size:)			
1. Cyperus esculentus	5		FACW
2. Persicaria pennsylvanica	25	Y	FACW
3. Setaria parviflora	15	Y	FAC
4. Dichanthelium clandestinum	15	Y	FAC
5. Eleocharis palustris	6		OBL
6. Phalaris arundinacea	10		FACW
7. Juncus effusus	10		FACW
8.			
9.			
10.			
11.			
	95 = Total Cover		

50% of total cover: 42.5 20% of total cover: 17

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	50	x 2 =	100
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		195 (B)

Prevalence Index = B/A = 2.29

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

✓ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: A

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 4/3	95	5YR 4/6	5	C	M	clay loam	
8-20	7.5YR 4/2	90	5YR 4/6	10	C	M	silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MVPA 5001/5006 City/County: Doddridge Co, WV Sampling Date: 9/3/13
Applicant/Owner: EQT Gathering LLC State: _____ Sampling Point: Upland A
Investigator(s): E. McClung Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Convex Slope (%): 1
Subregion (LRR or MLRA): LRR N Lat: 39.37671 Long: -80.72279 Datum: _____
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	Is the Sampled Area within a Wetland? Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes _____	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Fallow field adjacent to wetland.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Upland A

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: _____)			
1. Solanum ptychanthum	5		FACU
2. Dichanthelium clandestinum	10	Y	FAC
3. Setaria parviflora	15	Y	FAC
4. Solidago canadensis	15	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45 = Total Cover		
50% of total cover: 22.5	20% of total cover: 9		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover: _____	20% of total cover: _____		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 62.5 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 25	x 3 = 75
FACU species 20	x 4 = 80
UPL species _____	x 5 = _____
Column Totals: 45 (A)	155 (B)

Prevalence Index = B/A = 3.44

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: Upland A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5YR 4/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MOPA S001/S006 City/County: Doddridge Co. Sampling Date: 9/5/2013
Applicant/Owner: EQT Gathering LLC State: WV Sampling Point: B
Investigator(s): E. McClung Section, Township, Range:
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%): 0
Subregion (LRR or MLRA): LRR N Lat: 39.36438 Long: -80.71511 Datum: NAD 83
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No ____	Is the Sampled Area within a Wetland?	Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____		
Wetland Hydrology Present?	Yes ✓ No ____		

Remarks: Non-isolated PEM wetland that has been impacted by waste materials (automotive and machinery debris). However, Normal Circumstances remain for wetland identification purposes.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): ____
Water Table Present? Yes ✓ No ____ Depth (inches): ~5
Saturation Present? (includes capillary fringe) Yes ✓ No ____ Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: B

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size:)			
1. Impatiens capensis	60	Y	FACW
2. Epilobium coloratum	15		FACW
3. Juncus effusus	5		FACW
4. Scirpus cyperinus	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		

50% of total cover: 42.5 20% of total cover: 17

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 85	x 2 =	170
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 85 (A)		170 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:

- ✓ 1 - Rapid Test for Hydrophytic Vegetation
- ✓ 2 - Dominance Test is >50%
- ✓ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/2	90	5YR 5/6	10	C	M	silty clay loam	
10+								gravel/rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ✓ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: gravel/rock

Depth (inches): 10

Hydric Soil Present? Yes ✓ No ___

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: MOPA 5007/5006 City/County: Doddridge Co. Sampling Date: 9/5/2013
Applicant/Owner: EQT Gathering LLC State: WV Sampling Point: Upland B
Investigator(s): E. McClung Section, Township, Range: _____
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10
Subregion (LRR or MLRA): LRR N Lat: 39.36359 Long: -80.71497 Datum: _____
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	Is the Sampled Area within a Wetland? Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____
Water Table Present? Yes _____ No _____ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Upland B

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Paulownia tomentosa	10		FACU
2. Fagus grandifolia	30	Y	FACU
3. Platanus occidentalis	15	Y	FACW
4.			
5.			
6.			
	55	= Total Cover	

50% of total cover: 27.5 20% of total cover: 11

Sapling Stratum (Plot size:)			
1. Fagus grandifolia	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
	10	= Total Cover	

50% of total cover: 5 20% of total cover: 2

Shrub Stratum (Plot size:)			
1. Rosa multiflora	15	Y	FACU
2.			
3.			
4.			
5.			
6.			
	15	= Total Cover	

50% of total cover: 7.5 20% of total cover: 3

Herb Stratum (Plot size:)			
1. Solidago canadensis	10	Y	FACU
2. Polystichum acrostichoides	10	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20	= Total Cover.	

50% of total cover: 10 20% of total cover: 4

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

50% of total cover: 20% of total cover:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Upland B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5YR 4/3	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Gessler Impoundment City/County: Doddridge Sampling Date: 10/22/12
Applicant/Owner: EQT Production Company State: WV Sampling Point: Data Pt. 1
Investigator(s): Shawn Evans Section, Township, Range:
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): <2%
Subregion (LRR or MLRA): Lat: 39.373086 Long: -80.720406 Datum: NAD 83
Soil Map Unit Name: NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No	Is the Sampled Area within a Wetland?	Yes ✓ No
Hydric Soil Present?	Yes ✓ No		
Wetland Hydrology Present?	Yes ✓ No		

Remarks: Palustrine emergent. Isolated

I believe the dominant plant is Microstegium vimineum. However, the plant was dried + hard to identify. Ideally, additional delineation should be done in the growing season next year.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches):
Water Table Present?	Yes ___	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches):

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Not many hydrology indicators, but fairly certain there would be more in other parts of the year. Area is situated between toe of hillslope + an old road, which is now more of a "bench."

Wetland is isolated. No channel exists below it to connect it to Flint Run.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: Data Pt. 1

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	___ = Total Cover		
Sapling Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	___ = Total Cover		
Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	___ = Total Cover		
Herb Stratum (Plot size: 5ft)			
1. Microstegium vimineum	80	Yes	FAC
2. Carex hirsuta	5	No	OBL
3. Juncus effusus	5	No	FACW
4. Platanus occidentalis	4	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	94 = Total Cover		
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	___ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	9	x 2 =	18
FAC species	80	x 3 =	240
FACU species	___	x 4 =	
UPL species	___	x 5 =	
Column Totals:	94 (A)		263 (B)

Prevalence Index = B/A = 2.79

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✓ 2 - Dominance Test is >50%
- ✓ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

Not much diversity.

SOIL

Sampling Point: Data Point 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-0.5	10YR 4/3	100						Organic
0.5-12	10YR 5/2	90	10YR 5/6	10	C	M	loam	
12-20+	10YR 5/3	100					loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) (LRR N)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ___ Thin Dark Surface (S9) (MLRA 147, 148)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ___ Umbric Surface (F13) (MLRA 136, 122)
- ___ Piedmont Floodplain Soils (F19) (MLRA 148)
- ___ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (MLRA 147)
- ___ Coast Prairie Redox (A16) (MLRA 147, 148)
- ___ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ✓ No

Remarks:

WETLAND DATA FORM

EASTERN MOUNTAINS AND PIEDMONT

PROJECT NAME: Gessler Impoundment

PROJECT NUMBER: 0101-11-0147 001

DATE: 10/22/12

SAMPLING POINT: Wetland 1 - Data Point 1

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Gessler Impoundment City/County: Doddridge Sampling Date: 10/22/12
Applicant/Owner: EQT Production Company State: WV Sampling Point: WL 2 Data Pnt. 1
Investigator(s): Shaun Evans Section, Township, Range:
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): slightly concave Slope (%): 2-10%
Subregion (LRR or MLRA): Lat: 39.372517 Long: -80.720276 Datum: NAD 83
Soil Map Unit Name: NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	Is the Sampled Area within a Wetland? Yes ✓ No ___
Hydric Soil Present?	Yes ✓	No ___	
Wetland Hydrology Present?	Yes ✓	No ___	

Remarks: Palustrine emergent

Plants were hard to identify due to the season. Ideally, an additional delineation should be completed in the next growing season.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches):
Water Table Present?	Yes ✓	No ___	Depth (inches): 9-10
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 12

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Abuts unnamed tributary #2, which connects to Flint Run

WL 2

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: Data Pnt. 1

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	___ = Total Cover		
Sapling Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	___ = Total Cover		
Shrub Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	___ = Total Cover		
Herb Stratum (Plot size: 5ft)			
1. Cyperus strigosus	50%	Yes	FACW
2. Juncus effusus	9%	No	FACW
3. Polygonum pensylvanicum	8%	No	FACW
4. Verbesina alternifolia	5%	No	FAC
5. Trifolium pratense	2%	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	74 = Total Cover		
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
3.			
4.			
5.			
	___ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species ___	x 1 =	
FACW species 67	x 2 =	134
FAC species 5	x 3 =	15
FACU species 2	x 4 =	8
UPL species ___	x 5 =	
Column Totals: 74	(A)	157 (B)

Prevalence Index = B/A = 2.12

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ✓ 2 - Dominance Test is >50%
- ✓ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No

Remarks: (Include photo numbers here or on a separate sheet.)
At least 15% unidentifiable. (Dead)

WL-2

SOIL Sampling Point: Data Pt 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	7.5YR 4/3	100						
1-20	7.5YR 4/2	75	7.5YR 5/8	15	C	M	loam	
			2.5YR 6/6	10	C	M	loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ 2 cm Muck (A10) (LRR N)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7)
- __ Polyvalue Below Surface (S8) (MLRA 147, 148)
- __ Thin Dark Surface (S9) (MLRA 147, 148)
- __ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- __ Umbric Surface (F13) (MLRA 136, 122)
- __ Piedmont Floodplain Soils (F19) (MLRA 148)
- __ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) (MLRA 147)
- __ Coast Prairie Redox (A16) (MLRA 147, 148)
- __ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ✓ No

Remarks:

WETLAND DATA FORM

EASTERN MOUNTAINS AND PIEDMONT

PROJECT NAME: Gessner Impoundment

PROJECT NUMBER: 0101-11-0147 001

DATE: 10/22/12

SAMPLING POINT: Wetland 2 - Data Point 1

Appendix C
Identified and Delineated Stream/Wetland Characteristics
Gessler Freshwater Impoundment

Watershed	Stream/Pond/Wetland	Bank Full Height (ft)	Bank Full Width (ft)	Stream/Wetland Classification	Stream Length (ft)/Wetland Acreage within AOI*	Substrate
Flint Run/McElroy Creek/Middle Island Creek/Ohio River	Flint Run	2.0	25.0	Perennial	1523.37	Silt/Gravel/Cobble
	Unnamed Tributary No. 1 (UNT 1)	0.5	7.1	Intermittent	83.63	Gravel/Cobble
	Unnamed Tributary No. 2 (UNT 2)	0.3	2.9	Intermittent	662.78	Gravel/Cobble
	Unnamed Tributary No. 3 (UNT 3)	0.1	0.6	Ephemeral	376.44	Gravel/Cobble
	Wetland No. 2 (WL 2)	---	---	Palustrine Emergent	0.02	---
	Ditch 1	---	---	Drainage Conveyance	168.98	---
	Wetland No. 1 (WL 1)	---	---	Palustrine Emergent/Isolated	0.02	---

*Values listed in this column are not indicative of proposed impacts.

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Stream Characterization Data Form

Stream Datasheet 6

Stream evaluations should be performed while facing upstream.

Date: 4/3/2013 Client: EQT Gathering LLC Site: MOPA 5006

County/State: Doddridge/WV Investigators: Evan McClung & Jillian Tompkins

GPS Coordinates: LAT: 39.372N LONG: -80.71978 Data Entered by: E McClung

Stream Name: Flint Run Field ID: MO-5-1

Type of Stream: Perennial Predominant weather in past: ☐ 24hrs ☐ 48hrs ☑ 72hrs intermittent rain

1. a) Approximate depth of water in stream: 12in. ___N/A
   b) Approximate width of water flow: 35 ft. ___N/A
   c) Approximate width of stream: (from top of bank to top of bank) 40 ft
   d) Approximate width of stream: (from toe of bank to toe of bank) 38 ft
   e) Approximate depth of pool(s): 24in. ___N/A
   f) Approximate height of banks (channel depth): left 6 ft right 6 ft
   g) OHWM Depth 24 in. ___N/A
   h) OHWM Width 38 ft. ___N/A
   Flow: Moderate

2. Is there a significant nexus to another water source? yes a) If so, is the water source: delineated
   b) If delineated, list connected features: MO-5-2, MO-5-3, MO-5-4-MO-5-5-MO-W5

3. Plant Species Adjacent to stream (scientific name):
   Trees: Platanus occidentalis, Acer rubrum
   Shrubs: Asimina triloba
   Understory: POACEAE

4. Stream habitats present: ☑ Pools ☑ Runs ☑ Riffles ☐ N/A 5. Aquatic Fauna Present? yes If Yes - Describe: fish

6. Nature of the particles in the stream bottom:
   silt/clay/mud: Most cobbles (2" to 10" diam.): Some
   sand: little boulders (> 10" diam.): little
   gravel: some bedrock: none

7. Presence of:
   a) naturally occuring organic material in stream: occasional
   b) logs or large woody debris in stream: occasional

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 5 ft right side 5 ft
   And what is the % of that cover? left side 25 % right side 25 %
   b) What is the extent of shrub cover out to 50 ft. of the stream? left side 5 ft right side 5 ft
   And what is the % of that cover? left side 5 % right side 5 %

9. Water Appearance: clear If other, explain:

10. Water Odor: none If other, explain:

11. Pick the description that best fits the stream bank and the channel: Left steep Right steep

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees	present	present
Bushes, Shrubs	present	present
Tall grasses, ferns	common	common
Lawn		
Boulders/Rocks		
Gravel/Sand		
Bare Soil		
Pavement Structures		
Agriculture		
Other		
if other, explain:		

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded		
Banks collapsed/eroded	present	present
Garbage/junk adjacent to the stream		
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream		
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes		
Other pipes		
Ditches entering stream		

Additional Comments: Perennial stream through pasture

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Stream Characterization Data Form

Stream Datasheet 6

Stream evaluations should be performed while facing upstream.

Date: 9/3/2013 Client: EQT Gathering LLC Site: MOPA 5006

County/State: Doddridge/WV Investigators: Evan McClung & Jillian Tamplains

GPS Coordinates: LAT: 39.38867 LONG: -80.72363 Data Entered by: E. McClung

Stream Name: UNT to Flint Run Field ID: MO-5-2

Type of Stream: Intermittent Predominant weather in past ☐ 24hrs ☐ 48hrs ☑ 72hrs intermittent rain

1. a) Approximate depth of water in stream: 0-1 in. ___ N/A
   b) Approximate width of water flow: 0-5 in. ___ N/A
   c) Approximate width of stream: (from top of bank to top of bank) 5 ft.
   d) Approximate width of stream: (from toe of bank to toe of bank) 4 ft.
   e) Approximate depth of pool(s): 5 in. ___ N/A
   f) Approximate height of banks (channel depth): Flow: none
   left 1.5 ft right 1.5 ft
   g) OHWM Depth 2 in. ___ N/A
   h) OHWM Width 4.5 ft ___ N/A

2. Is there a significant nexus to another water source? Yes a) If so, is the water source: delineated
   b) If delineated, list connected features: MO-5-1 (off-site)

3. Plant Species Adjacent to stream (scientific name):
   Trees: Acer negundo, Platanus occidentalis
   Shrubs: Rosa multiflora
   Understory: POACEAE

4. Stream habitats present: ☑ Pools ☐ Runs ☐ Riffles ☐ N/A 5. Aquatic Fauna Present? NO if Yes - Describe:

6. Nature of the particles in the stream bottom:
   silt/clay/mud some cobbles (2-10" diam.) some
   sand little boulders (> 10" diam.) little
   gravel most bedrock none

7. Presence of:
   a) naturally occuring organic material in stream occasional
   b) logs or large woody debris in stream occasional

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 5 ft right side 5 ft
   And what is the % of that cover? left side 25 % right side 25 %
   b) What is the extent of shrub cover out to 50 ft. of the stream? left side 5 right side 5
   And what is the % of that cover? left side 5 % right side 5 %

9. Water Appearance: Clear If other, explain:

10. Water Odor none If other, explain:

11. Pick the description that best fits the stream bank and the channel Left steep Right steep

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees	present	present
Bushes, Shrubs	present	present
Tall grasses, ferns	common	common
Lawn		
Boulders/Rocks		
Gravel/Sand		
Bare Soil		
Pavement Structures		
Agriculture		
Other		
If other, explain:		

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded	present	present
Banks collapsed/eroded	present	present
Garbage/junk adjacent to the stream		
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream		
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes		
Other pipes		
Ditches entering stream	yes	yes

Additional Comments

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Stream Characterization Data Form

Stream Datasheet 6

Stream evaluations should be performed while facing upstream.

Date: 9/3/2013 Client: EQT Gathering LLC Site: MOPA 5006

County/State: Doddridge / WV Investigators: E. McClung & J. Tompkins

GPS Coordinates: LAT: 39.27757 LONG: -80.72384 Data Entered by: E. McClung

Stream Name: UNT to Flint Run Field ID: MD-5-3

Type of Stream: Ephemeral Predominant weather in past: ☐ 24hrs ☐ 48hrs ☐ 72hrs Intermittent

1. a) Approximate depth of water in stream: 2 in. ___ N/A
   b) Approximate width of water flow: 6 in. ___ N/A
   c) Approximate width of stream: (from top of bank to top of bank) 2 ft
   d) Approximate width of stream: (from toe of bank to toe of bank) 1 ft
   e) Approximate depth of pool(s): ___ ✓ N/A
   f) Approximate height of banks (channel depth): left 1 ft right 1 ft Flow: Slow
   g) OHWM Depth 2 in. ___ N/A
   h) OHWM Width 1.5 ft ___ N/A

2. Is there a significant nexus to another water source? Yes a) If so, is the water source: delineated
   b) If delineated, list connected features: MD-5-1

3. Plant Species Adjacent to stream (scientific name):
   Trees: —
   Shrubs: —
   Understory: Aster spp. Asclepias spp. POACEAE

4. Stream habitats present: ☐ Pools ☐ Runs ☑ Riffles ☐ N/A 5. Aquatic Fauna Present? No If Yes - Describe:

6. Nature of the particles in the stream bottom:
   silt/clay/mud: Moist cobbles (2-10" diam.): little
   sand: None boulders (> 10" diam.): None
   gravel: Some bedrock: None

7. Presence of:
   a) naturally occuring organic material in stream: little
   b) logs or large woody debris in stream: little

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 0 right side 0
   And what is the % of that cover? left side 0 % right side 0 %
   b) What is the extent of shrub cover out to 50 ft. of the stream? left side 0 right side 0
   And what is the % of that cover? left side 0 % right side 0 %

9. Water Appearance: clear If other, explain:

10. Water Odor none If other, explain:

11. Pick the description that best fits the stream bank and the channel: Left steep Right steep

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees		
Bushes, Shrubs		
Tall grasses, ferns	Common	Common
Lawn		
Boulders/Rocks		
Gravel/Sand		
Bare Soil		
Pavement Structures		
Agriculture		
Other		
If other, explain:		

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded	Common	Common
Banks collapsed/eroded		
Garbage/junk adjacent to the stream		
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream		
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes		
Other pipes		
Ditches entering stream		

Additional Comments

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Stream Characterization Data Form

Stream Datasheet 8

Stream evaluations should be performed while facing upstream.

Date: 9/4/13 Client: EQT Gathering LLC Site: MOPA S-001 + S-006

County/State: Doddridge / WV Investigators: E. McClung & J. Tompkins

GPS Coordinates: LAT: 39.37108 LONG: -80.71862 Data Entered by: E. McClung

Stream Name: Brush Run Field ID: MO-S-5

Type of Stream: perennial Predominant weather in past: ☐ 24hrs ☐ 48hrs ☑ ~~72hrs~~ Sunny

1. a) Approximate depth of water in stream: 5 in. ___ N/A
   b) Approximate width of water flow: 10 ft. ___ N/A
   c) Approximate width of stream: (from top of bank to top of bank) 30 ft
   d) Approximate width of stream: (from toe of bank to toe of bank) 28 ft
   e) Approximate depth of pool(s): 10 in. ___ N/A
   f) Approximate height of banks (channel depth): left 2.5 ft right 2.5 ft Flow: Moderate
   g) OHWM Depth 12 in. ___ N/A
   h) OHWM Width 29 ft ___ N/A

2. Is there a significant nexus to another water source? yes a) If so, is the water source: delineated
   b) If delineated, list connected features: MO-S-1

3. Plant Species Adjacent to stream (scientific name):
   Trees: Platanus occidentalis, Acer negundo
   Shrubs: Rosa multiflora
   Understory: Solidago spp.

4. Stream habitats present: ☐ Pools ☑ Runs ☑ Riffles ☐ N/A

5. Aquatic Fauna Present? yes If Yes - Describe: fish

6. Nature of the particles in the stream bottom:
   silt/clay/mud: Some cobbles (2-10" diam.): Some
   sand: Some boulders (> 10" diam.): 1 Hit
   gravel: most bedrock: None

7. Presence of:
   a) naturally occuring organic material in stream: occas. mod
   b) logs or large woody debris in stream: occas. mod

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 20ft right side 50ft
   And what is the % of that cover? left side 40 % right side 70 %
   b) What is the extent of shrub cover out to 50 ft. of the stream? left side 20ft right side 50ft
   And what is the % of that cover? left side 5 % right side 10 %

9. Water Appearance: clear If other, explain: ___

10. Water Odor None If other, explain: ___

11. Pick the description that best fits the stream bank and the channel Left ___ Right ___

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees	~~Exposed~~ present	common
Bushes, Shrubs	present	common
Tall grasses, ferns	common	common
Lawn		
Boulders/Rocks	present	present
Gravel/Sand		
Bare Soil	present	present
Pavement Structures		
Agriculture		
Other		
If other, explain:		

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded		
Banks collapsed/eroded		
Garbage/junk adjacent to the stream		
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream		
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes		
Other pipes		
Ditches entering stream		

Additional Comments

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Stream Characterization Data Form

Stream Datasheet 6

Stream evaluations should be performed while facing upstream.

Date: 9/9/2013 Client: EQT Gathering LLC Site: MOPA S-001 & S-006

County/State: Doddridge / WV Investigators: E. McClung & J. Tomokins

GPS Coordinates: LAT: 39.36404 LONG: -80.71342 Data Entered by: E. McClung

Stream Name: UNT to Flint Run Field ID: MO-S-6

Type of Stream: Ephemeral Predominant weather in past: ☐ 24hrs ☐ 48hrs ☑ ~~72hrs~~ Clear/Sunny

1. a) Approximate depth of water in stream: ___ ✓ N/A
   b) Approximate width of water flow: ___ ✓ N/A
   c) Approximate width of stream: (from top of bank to top of bank) 5 ft
   d) Approximate width of stream: (from toe of bank to toe of bank) 4 ft
   e) Approximate depth of pool(s): ___ ✓ N/A
   f) Approximate height of banks (channel depth): Flow: None
   left 2 ft right 2 ft
   g) OHWM Depth 2 in. ___ N/A
   h) OHWM Width 4.5 ft. ___ N/A

2. Is there a significant nexus to another water source? Yes a) If so, is the water source: offsite (delineated)
   b) If delineated, list connected features: MO-S-7

3. Plant Species Adjacent to stream (scientific name):
   Trees: Acer rubrum, Fagus grand. folia, Ulmus rubra
   Shrubs: Hamamelis virginiana
   Understory: Polystichum acrostichoides

4. Stream habitats present: ☐ Pools ☐ Runs ☐ Riffles ☑ ~~N/A~~ 5. Aquatic Fauna Present? No If Yes - Describe:

6. Nature of the particles in the stream bottom:
   silt/clay/mud Some; sand Little; gravel Some; cobbles (2-10" diam.) Most; boulders (> 10" diam.) Some; bedrock None
   7. Presence of:
   a) naturally occuring organic material in stream occasional
   b) logs or large woody debris in stream occasional

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 50 ft right side 50 ft
   And what is the % of that cover? left side 25 % right side 25 %
   b) What is the extent of shrub cover out to 50 ft. of the stream? left side 50 right side 50
   And what is the % of that cover? left side 15 % right side 15 %

9. Water Appearance: NA If other, explain: ___ 10. Water Odor NA If other, explain: ___

11. Pick the description that best fits the stream bank and the channel: Left steep Right steep

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees	common	common
Bushes, Shrubs	common	common
Tall grasses, ferns	present	present
Lawn		
Boulders/Rocks	present	present
Gravel/Sand		
Bare Soil	present	present
Pavement Structures		
Agriculture		
Other		
If other, explain:		

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded	Common	Common
Banks collapsed/eroded	present	present
Garbage/junk adjacent to the stream	Common	common
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream	Common	Common
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes	yes	yes
Other pipes		
Culvert Ditches entering stream		

Additional Comments

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Stream Characterization Data Form

Stream Datasheet 6

Stream evaluations should be performed while facing upstream.

Date: 9/5/13 Client: EQT Gathering LLC Site: MOPA S-001 to S-006
County/State: Doddridge / WV Investigators: E. McClung & J. Tompkins
GPS Coordinates: LAT: 39.36352 LONG: -80.71526 Data Entered by: E. McClung
Stream Name: UNT to Flint Run Field ID: MO-S-7
Type of Stream: ~~ASS~~ Intermittent Predominant weather in past ☐ 24hrs ☐ 48hrs ☒ 72hrs clear

1. a) Approximate depth of water in stream: 1 in. ___ N/A
b) Approximate width of water flow: 6 in. ___ N/A
c) Approximate width of stream: (from top of bank to top of bank) 7 ft
d) Approximate width of stream: (from toe of bank to toe of bank) 6 ft
e) Approximate depth of pool(s): 4 in. ___ N/A
f) Approximate height of banks (channel depth): left 4 ft right 4 ft
g) OHWM Depth 8 in. ___ N/A
h) OHWM Width 6.5 ft ___ N/A
Flow: None to slow

2. Is there a significant nexus to another water source? Yes
a) If so, is the water source: delineated (offsite)
b) If delineated, list connected features: MO-S-1 (off-site)

3. Plant Species Adjacent to stream (scientific name):
Trees: Platanus Occidentalis, Acer rubrum, Fagus grandifolia
Shrubs: Hamamelis Virginiana
Understory: Parthenocissus Quinquefolia

4. Stream habitats present: ☒ Pools ☐ Runs ☒ Riffles ☐ N/A
5. Aquatic Fauna Present? Yes If Yes - Describe: macro invertebrates

6. Nature of the particles in the stream bottom:
silt/clay/mud Some
sand Some
gravel Most
cobbles (2-10" diam.) Some
boulders (> 10" diam.) Some
bedrock None

7. Presence of:
a) naturally occuring organic material in stream Occasional
b) logs or large woody debris in stream occasional

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 50 right side 50
And what is the % of that cover? left side 50 % right side 50 %
b) What is the extent of shrub cover out to 50 ft. of the stream? left side 50 right side 50
And what is the % of that cover? left side 15 % right side 15 %

9. Water Appearance: clear If other, explain:
10. Water Odor None If other, explain:

11. Pick the description that best fits the stream bank and the channel Left Steep Right Steep

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees	Common	common
Bushes, Shrubs	common	Common
Tall grasses, ferns	common	Common
Lawn		
Boulders/Rocks	present	present
Gravel/Sand		
Bare Soil	present	present
Pavement Structures		
Agriculture		
Other	present	present
If other, explain:	debris/waste (old cars, tires, e.g.)	

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded	✓	✓
Banks collapsed/eroded	✓	✓
Garbage/junk adjacent to the stream	✓	✓
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream	✓	✓
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes		
Other pipes	✓	✓
Ditches entering stream		

culverts

Additional Comments

ATTACHMENT B

Wetland Delineation Photos for Impacted Features

Appendix B: Photos of Jurisdictional Features Proposed for Impacts

Photo #1: View west (upstream) of Stream 1 (first pipeline crossing)

Photo #2: View west across Stream 1
(second crossing at existing access road/bridge)

Appendix B: Photos of Jurisdictional Features Proposed for Impacts

Photo #3: View northeast (upstream) of Stream 1 (third pipeline crossing)

Photo #4: View west (upstream) of Stream 3

Appendix B: Photos of Jurisdictional Features Proposed for Impacts

Photo #5: View west (upstream) of Stream UNT2

Photo #6: View east (upstream) of Stream 5

Appendix B: Photos of Jurisdictional Features Proposed for Impacts

Photo #7: View north (upstream) of Stream 6

Photo #8: View east (upstream) of Stream 7

Appendix B: Photos of Jurisdictional Features Proposed for Impacts

Photo #9: View west (upstream) of Stream UNT3 (photo by Potesta)

Photo #10: View east of Wetland A

Appendix B: Photos of Jurisdictional Features Proposed for Impacts

Photo #11: View east of Wetland B

ATTACHMENT C

Agency Correspondence Letters

- USFWS
- WVDNR
- WVDCH

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September 26, 2013

Mr. John Schmidt
Endangered Species Biologist
United States Fish and Wildlife Service
West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

Re: Rare, Threatened and Endangered Species Consultation
MOPA-S001 & MOPA-S006 Pipeline Project
Doddridge County, West Virginia
EQT Gathering, LLC

Dear Mr. John Schmidt:

EQT Gathering, LLC (EQT) is proposing to install the 0.93-mile, 16-inch diameter MOPA-S001 and the 0.81-mile, 12-inch diameter MOPA-S006 natural gas pipelines in Doddridge County, West Virginia (Figure 1). The proposed MOPA-S001 & MOPA-S006 pipelines (Project) will tie into an existing EQT Production Company Well Pad to the south and the proposed Pandora Compressor Facility to the north. Site location maps are provided as Figure 1 (USGS Topographic Map) and Figure 2 (Aerial Imagery Map). A review of the United States Fish and Wildlife Service (USFWS) Aquatic and Terrestrial Area shapefiles, provided to Kleinfelder by the USFWS on February 5, 2013 and March 6, 2013, indicates that the Project area is not within any known aquatic or terrestrial buffers. The closest terrestrial buffer is approximately five (5) miles northwest of the proposed Project, and the closest aquatic buffer is approximately 0.80 mile north of the proposed Project.

The proposed Project will cross four (4) separate streams listed on the National Hydrography Dataset (NHD) and will not cross any National Wetland Inventory (NWI) wetlands (Figure 2). Two (2) major land uses, deciduous forest and open pasture, were observed during the field site reviews conducted between September 3 and 5, 2013. The forested community was dominated by chestnut oak (*Quercus montana*), pignut hickory (*Carya glabra*), northern red oak (*Quercus rubra*), white oak (*Quercus alba*), poplar (*Liriodendron tulipifera*), American beech (*Fagus grandifolia*), hophornbeam (*Ostrya virginiana*), black cherry (*Prunus serotina*),

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and blackgum (*Nyssa sylvatica*). The open pasture was dominated by orchard grass (*Dactylis glomerata*) with goldenrod (*Solidago* spp.) and other grass species intermixed.

The USFWS lists 14 animal species occurring within West Virginia as either endangered or threatened. The table below summarizes the species that are known to occur within Doddridge County. This list also includes species not assigned to specific counties.

Common Name	Scientific Name	Status
gray bat	*Myotis grisescens*	Endangered
Indiana bat	*Myotis sodalis*	Endangered
pearly mussel	*Epioblasma torulosa torulosa*	Endangered
clubshell	*Pleurobema clava*	Endangered
sheepnose mussel	*Plethobasus cyphyus*	Endangered
snuffbox mussel	*Epioblasma triquetra*	Endangered
spectaclecase (mussel)	*Cumberlandia monodonta*	Endangered

Gray bat

This species of bat roosts in caves throughout the year. A desktop review of known caves and mine portals was conducted, and no indications of caves or mine portals were discovered. Additionally, Kleinfelder staff biologists did not identify any caves or mine portals within the Project boundary during the September 2013 field site reviews, and no impacts are proposed to caves or mine portals.

Indiana bat

During the September 2013 field site reviews, Kleinfelder assessed the onsite bat habitat. Mature upland forests were observed throughout the Project boundary with tree sizes ranging from approximately one (1) to three (3) feet Diameter at Breast Height (DBH). Relatively few shagbark hickory (*Carya ovata*) or snags were observed. Open pasture areas were also observed and could potentially serve as bat flight corridors. The proposed Project boundary contained fair to moderate habitat.

The proposed Project will impact 20.87 acres, of which approximately 13.30 acres are forested (based on GIS reviews of aerial photography). There are 571.11 pre-construction acres of forested land within a 0.25-mile radial buffer surrounding the proposed centerline of the alignment. The post-construction forested land is 557.81 acres. It is Kleinfelder's professional opinion that sufficient forested habitat will remain on the post-construction landscape to support Indiana bats. Furthermore, EQT will conduct tree clearing activities between November 15 and March 31 to ensure summer-roosting bats are not affected. Therefore, the

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Project will not result in adverse effects to Indiana bats, and Kleinfelder is requesting concurrence with this assessment.

Mussels

The MOPA-S006 portion of the Project proposes four (4) crossings (three (3) crossings by the pipeline and one crossing by an access road) of Flint Run, which is a state-listed mussel stream. This perennial stream was delineated on September 3, 2013 by Kleinfelder biologists as Stream 1. At the time of the field investigation, this stream contained water 12 inches deep and 35 feet wide. The stream substrate was primarily composed of a silt/clay/mud mixture. Pools were observed and measured to a depth of approximately 24 inches. The datasheet and photographs of this stream are provided in the Appendix.

A mussel survey is currently scheduled to be conducted at the four (4) proposed crossings of this stream during the week of September 22, 2013. The results of the mussel survey will be provided under separate cover.

Kleinfelder requests any additional information concerning the potential occurrence of rare, threatened and endangered species and their critical habitat within a 0.5-mile radius of the proposed project and concurrence that the MOPA-S001 and MOPA-S006 Pipelines will not adversely affect endangered species.

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

c: Barbara Sargent, West Virginia Division of Natural Resources

Enclosures (3)
- Figure 1 – USGS Topographic Map
- Figure 2 – Aerial Imagery Map
- Appendix – Stream 1 Datasheet and Photographs

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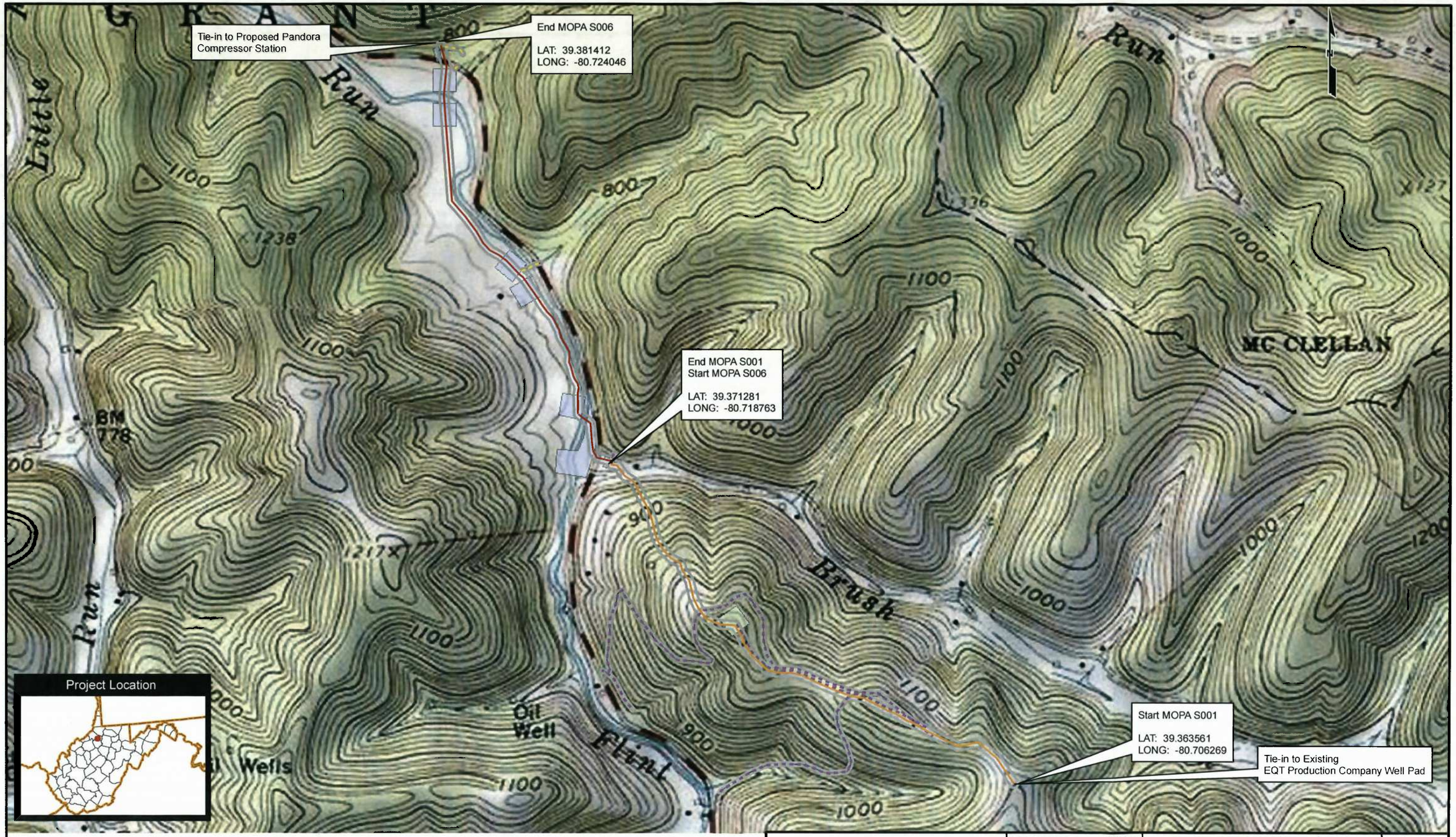
FIGURE 1
USGS Topographic Map



0 500 1,000 2,000 Feet

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Legend

- MOPA S001 Alignment (0.93 mi)
- MOPA S006 Alignment (0.81 mi)
- MOPA S001 Access Road
- MOPA S006 Access Roads
- Project Boundary (20.87 ac)
- MOPA S001 Workspace
- MOPA S006 Workspace

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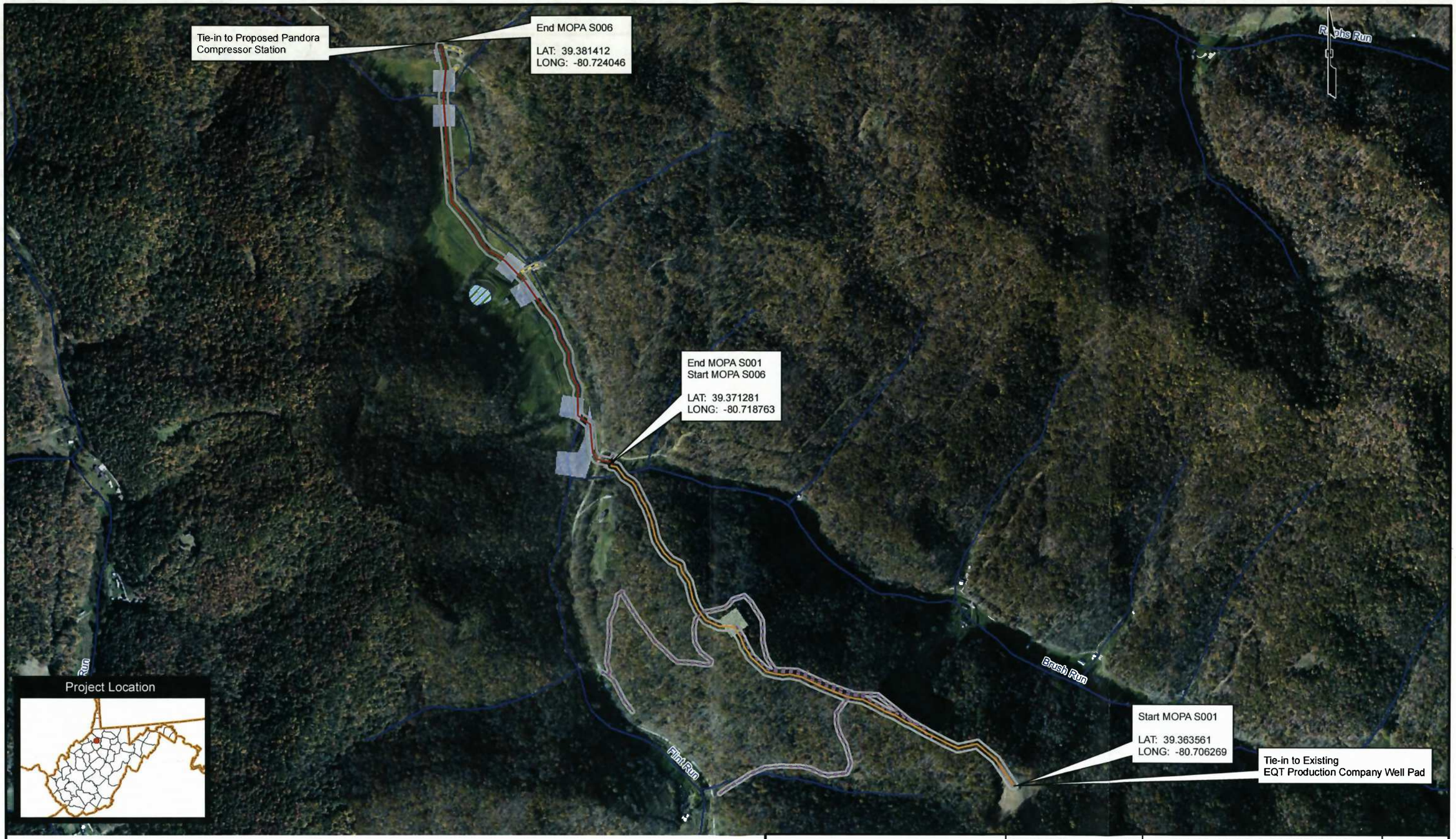
PROJECT NO.	136508
DRAWN:	9/26/2013
DRAWN BY:	A.Leonard
CHECKED BY:	N Peace
FILE NAME:	MOPA_S001-S006_General_v2.mxd

MOPA-S001 & MOPA-S006 Alignment General Location Map

Doddridge County, West Virginia

FIGURE 1

FIGURE 2
Aerial Imagery Map



0 500 1,000 2,000 Feet

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Legend

- MOPA S001 Alignment (0.93 mi)
- MOPA S006 Alignment (0.81 mi)
- MOPA S001 Access Road
- MOPA S006 Access Roads
- Project Boundary (20.87 ac)
- MOPA S001 Workspace
- MOPA S006 Workspace
- NHD Stream
- NWI Wetlands

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PROJECT NO.	136508
DRAWN:	9/26/2013
DRAWN BY:	A.Leonard
CHECKED BY:	N Peace
FILE NAME:	MOPA_S001-S006_Aerial_v2.mxd

MOPA-S001 & MOPA-S006 Alignment Aerial Imagery Map

Doddridge County, West Virginia

FIGURE 2

APPENDIX
Stream 1 Datasheet and Photographs

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Stream Characterization Data Form

Stream Datasheet 6

Stream evaluations should be performed while facing upstream

Date: 6/3/2013 Client: EQT Site: MOPA SOOG

County/State: Doddridge / WV Investigators: Evan McClung & Jillian Tompkins

GPS Coordinates: LAT: 39.372N LONG: -80.71978 Data Entered by: E McClung

Stream Name: Flint Run Field ID: MO-S-1

Type of Stream: Perennial Predominant weather in past ☐ 24hrs ☐ 48hrs ☑ 72hrs intermittent rain

1. a) Approximate depth of water in stream: 12 in. ___ N/A
   b) Approximate width of water flow: 35 ft. ___ N/A
   c) Approximate width of stream: (from top of bank to top of bank) 40 ft
   d) Approximate width of stream: (from toe of bank to toe of bank) 38 ft
   e) Approximate depth of pool(s): 24 in. ___ N/A
   f) Approximate height of banks (channel depth): left 6 ft right 6 ft Flow: moderate
   g) OHWM Depth 24 in. ___ N/A
   h) OHWM Width 38 ft. ___ N/A

2. Is there a significant nexus to another water source? yes a) If so, is the water source: delineated
   b) If delineated, list connected features: MO-S-2

3. Plant Species Adjacent to stream (scientific name):
   Trees: Platanus occidentalis, Acer rubrum
   Shrubs: Asimina triloba
   Understory: POACEAE

4. Stream habitats present: ☑ Pools ☑ Runs ☑ Riffles ☐ N/A 5. Aquatic Fauna Present? yes If Yes - Describe: fish

6. Nature of the particles in the stream bottom:
   silt/clay/mud Most cobbles (3" diam.) some
   sand little boulders (> 10" diam.) little
   gravel some bedrock none

7. Presence of:
   a) naturally occuring organic material in stream occasional
   b) logs or large woody debris in stream occasional

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 5 ft right side 5 ft
   And what is the % of that cover? left side 25 % right side 25 %
   b) What is the extent of shrub cover out to 50 ft. of the stream? left side 5 ft right side 5 ft
   And what is the % of that cover? left side 5 % right side 5 %

9. Water Appearance: clear If other, explain: ___ 10. Water Odor none If other, explain: ___

11. Pick the description that best fits the stream bank and the channel Left steep Right steep

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees	present	present
Bushes, Shrubs	present	present
Tall grasses, ferns	common	common
Lawn		
Boulders/Rocks		
Gravel/Sand		
Bare Soil		
Pavement Structures		
Agriculture		
Other		
If other, explain:		

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded		
Banks collapsed/eroded	present	present
Garbage/junk adjacent to the stream		
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream		
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes		
Other pipes		
Ditches entering stream		

Additional Comments

Perennial stream through pasture

Photograph 1 – View west (upstream) of Stream 1 at first proposed crossing (by pipeline)

Photograph 2 – View east (upstream) of Stream 1 at second proposed crossing (by pipeline)

Photograph 3 – View north (upstream) of Stream 1 at third proposed crossing (by access road)

Photograph 4 – View northeast (upstream) of Stream 1 at fourth proposed crossing (by pipeline)

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RECEIVED
SEP 27 2013
WVFO

September 26, 2013

Mr. John Schmidt
Endangered Species Biologist
United States Fish and Wildlife Service
West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

Re: Rare, Threatened and Endangered Species Consultation
MOPA-S001 & MOPA-S006 Pipeline Project
Doddridge County, West Virginia
EQT Gathering, LLC

Dear Mr. John Schmidt:

EQT Gathering, LLC (EQT) is proposing to install the 0.93-mile, 16-inch diameter MOPA-S001 and the 0.81-mile, 12-inch diameter MOPA-S006 natural gas pipelines in Doddridge County, West Virginia (Figure 1). The proposed MOPA-S001 & MOPA-S006 pipelines (Project) will tie into an existing EQT Production Company Well Pad to the south and the proposed Pandora Compressor Facility to the north. Site location maps are provided as Figure 1 (USGS Topographic Map) and Figure 2 (Aerial Imagery Map). A review of the United States Fish and

United States Department of the Interior

FISH AND WILDLIFE SERVICE

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

In response to your letter above, we have made a "no effect" determination that the project will not affect federally-listed endangered or threatened species. Therefore no biological assessment or further section 7 consultation under the Endangered Species Act is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed and proposed species becomes available, this determination may be reconsidered.

Definitive determinations of the presence 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.

9/30/2013
Reviewer's signature and date

10/17/13
Field Supervisor's signature and date

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September 26, 2013

Ms. Barbara Sargent
Environmental Resources Specialist
West Virginia Division of Natural Resources
Wildlife Resources Section
Operations Center
P.O. Box 67
Elkins, West Virginia 26241-3235

Re: Rare, Threatened and Endangered Species Consultation
MOPA-S001 & MOPA-S006 Pipeline Project
Doddridge County, West Virginia
EQT Gathering, LLC

Dear Ms. Sargent:

EQT Gathering, LLC (EQT) is proposing to install the 0.93-mile, 16-inch diameter MOPA-S001 and the 0.81-mile, 12-inch diameter MOPA-S006 natural gas pipelines in Doddridge County, West Virginia (Figure 1). The proposed MOPA-S001 & MOPA-S006 pipelines (Project) will tie into an existing EQT Production Company Well Pad to the south and the proposed Pandora Compressor Facility to the north. Site location maps are provided as Figure 1 (USGS Topographic Map) and Figure 2 (Aerial Imagery Map). A review of the United States Fish and Wildlife Service (USFWS) Aquatic and Terrestrial Area shapefiles, provided to Kleinfelder by the USFWS on February 5, 2013 and March 6, 2013, indicates that the Project area is not within any known aquatic or terrestrial buffers. The closest terrestrial buffer is approximately five (5) miles northwest of the proposed Project, and the closest aquatic buffer is approximately 0.80 mile north of the proposed Project.

The proposed Project will cross four (4) separate streams listed on the National Hydrography Dataset (NHD) and will not cross any National Wetland Inventory (NWI) wetlands (Figure 2). Two (2) major land uses, deciduous forest and open pasture, were observed during the field site reviews conducted between September 3 and 5, 2013. The forested community was dominated by chestnut oak (*Quercus montana*), pignut hickory (*Carya glabra*), northern red oak (*Quercus rubra*), white oak (*Quercus alba*), poplar (*Liriodendron tulipifera*), American beech (*Fagus grandifolia*), hophornbeam (*Ostrya virginiana*), black cherry (*Prunus serotina*),

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and blackgum (*Nyssa sylvatica*). The open pasture was dominated by orchard grass (*Dactylis glomerata*) with goldenrod (*Solidago* spp.) and other grass species intermixed.

The USFWS lists 14 animal species occurring within West Virginia as either endangered or threatened. The table below summarizes the species that are known to occur within Doddridge County. This list also includes species not assigned to specific counties.

Common Name	Scientific Name	Status
gray bat	*Myotis grisescens*	Endangered
Indiana bat	*Myotis sodalis*	Endangered
pearly mussel	*Epioblasma torulosa torulosa*	Endangered
clubshell	*Pleurobema clava*	Endangered
sheepnose mussel	*Plethobasus cyphyus*	Endangered
snuffbox mussel	*Epioblasma triquetra*	Endangered
spectaclecase (mussel)	*Cumberlandia monodonta*	Endangered

Gray bat

This species of bat roosts in caves throughout the year. A desktop review of known caves and mine portals was conducted, and no indications of caves or mine portals were discovered. Additionally, Kleinfelder staff biologists did not identify any caves or mine portals within the Project boundary during the September 2013 field site reviews, and no impacts are proposed to caves or mine portals.

Indiana bat

During the September 2013 field site reviews, Kleinfelder assessed the onsite bat habitat. Mature upland forests were observed throughout the Project boundary with tree sizes ranging from approximately one (1) to three (3) feet Diameter at Breast Height (DBH). Relatively few shagbark hickory (*Carya ovata*) or snags were observed. Open pasture areas were also observed and could potentially serve as bat flight corridors. The proposed Project boundary contained fair to moderate habitat.

The proposed Project will impact 20.87 acres, of which approximately 13.30 acres are forested (based on GIS reviews of aerial photography). There are 571.11 pre-construction acres of forested land within a 0.25-mile radial buffer surrounding the proposed centerline of the alignment. The post-construction forested land is 557.81 acres. It is Kleinfelder's professional opinion that sufficient forested habitat will remain on the post-construction landscape to support Indiana bats. Furthermore, EQT will conduct tree clearing activities between November 15 and March 31 to ensure summer-roosting bats are not affected. Therefore, the

230 Executive Drive, Suite 122, Cranberry Township, PA 16066 p | 724.772.7072 f | 724.772.7079

Project will not result in adverse effects to Indiana bats, and Kleinfelder is requesting concurrence with this assessment.

Mussels

The MOPA-S006 portion of the Project proposes four (4) crossings (three (3) crossings by the pipeline and one crossing by an access road) of Flint Run, which is a state-listed mussel stream. This perennial stream was delineated on September 3, 2013 by Kleinfelder biologists as Stream 1. At the time of the field investigation, this stream contained water 12 inches deep and 35 feet wide. The stream substrate was primarily composed of a silt/clay/mud mixture. Pools were observed and measured to a depth of approximately 24 inches. The datasheet and photographs of this stream are provided in the Appendix.

A mussel survey is currently scheduled to be conducted at the four (4) proposed crossings of this stream during the week of September 22, 2013. The results of the mussel survey will be provided under separate cover.

Kleinfelder requests any additional information concerning the potential occurrence of rare, threatened and endangered species and their critical habitat within a 0.5-mile radius of the proposed project and concurrence that the MOPA-S001 and MOPA-S006 Pipelines will not adversely affect endangered species.

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,

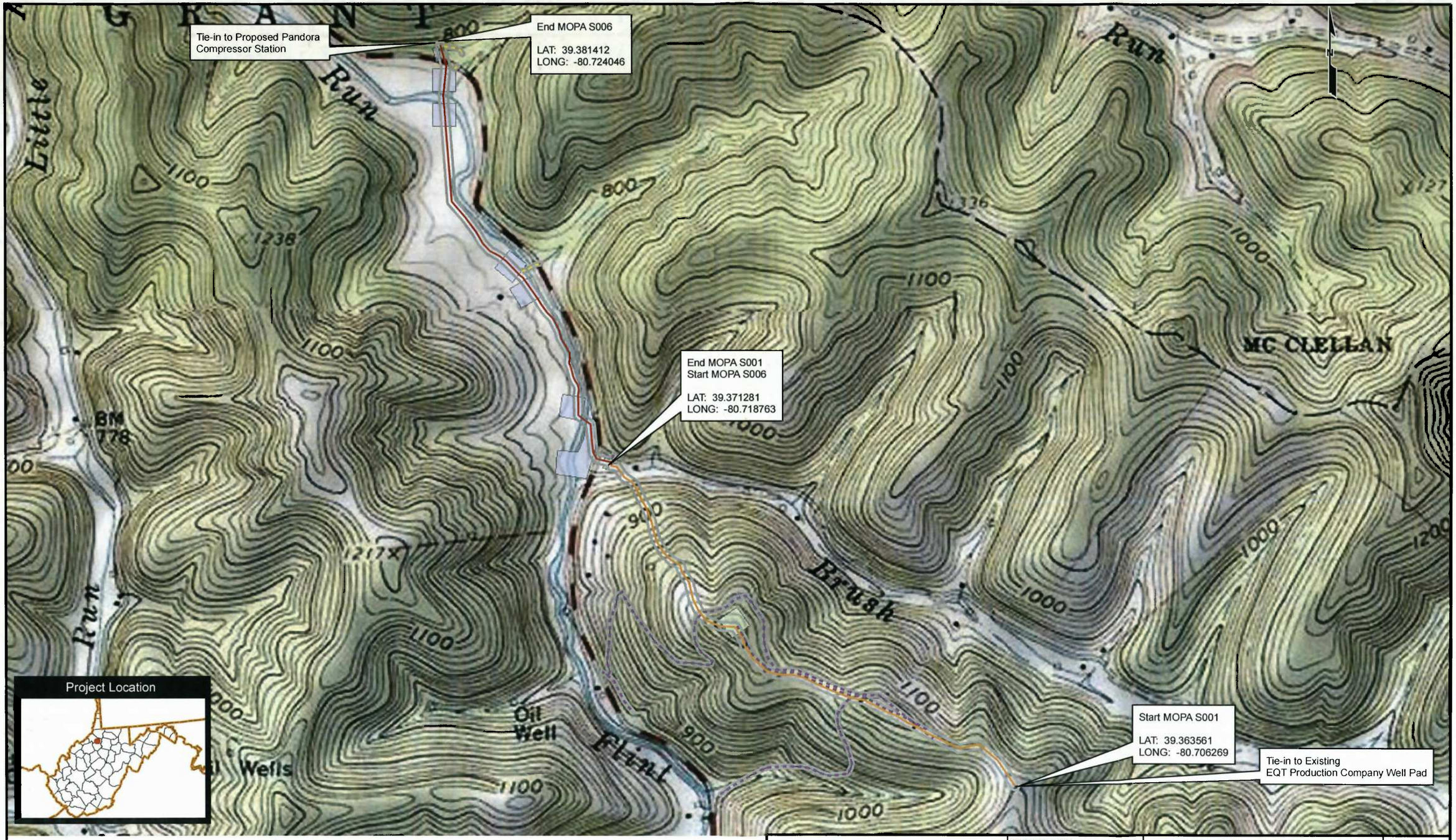
Matthew J. Albright
Project Manager

c: John Schmidt, US Fish and Wildlife Service

Enclosures (3)
- Figure 1 – USGS Topographic Map
- Figure 2 – Aerial Imagery Map
- Appendix – Stream 1 Datasheet and Photographs

230 Executive Drive, Suite 122, Cranberry Township, PA 16066 **p** | 724.772.7072 **f** | 724.772.7079

FIGURE 1
USGS Topographic Map



0 500 1,000 2,000 Feet

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Legend

- MOPA S001 Alignment (0.93 mi)
- MOPA S006 Alignment (0.81 mi)
- MOPA S001 Access Road
- MOPA S006 Access Roads
- Project Boundary (20.87 ac)
- MOPA S001 Workspace
- MOPA S006 Workspace

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www.kleinfelder.com

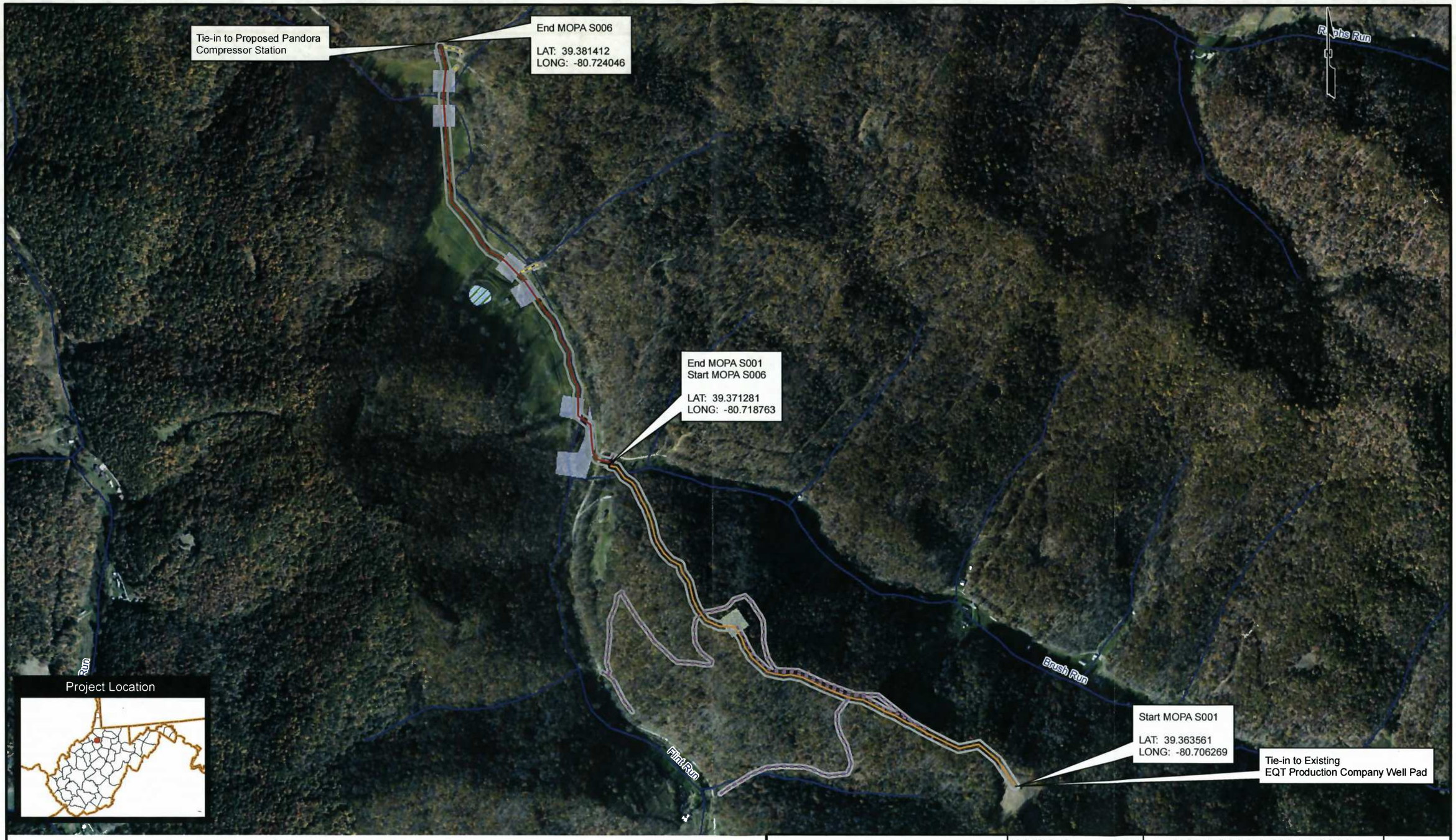
PROJECT NO.	136508
DRAWN:	9/26/2013
DRAWN BY:	A.Leonard
CHECKED BY:	N Peace
FILE NAME:	MOPA_S001-S006_General_v2.mxd

MOPA-S001 & MOPA-S006 Alignment General Location Map

Doddridge County, West Virginia

FIGURE 1

FIGURE 2
Aerial Imagery Map



0 500 1,000 2,000 Feet

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Legend

- MOPA S001 Alignment (0.93 mi)
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- MOPA S001 Workspace
- MOPA S006 Workspace
- NHD Stream
- NWI Wetlands

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PROJECT NO.	136508
DRAWN:	9/26/2013
DRAWN BY:	A.Leonard
CHECKED BY:	N Peace
FILE NAME:	MOPA_S001-S006_Aerial_v2.mxd

MOPA-S001 & MOPA-S006 Alignment Aerial Imagery Map

Doddridge County, West Virginia

FIGURE **2**

APPENDIX
Stream 1 Datasheet and Photographs

KLEINFELDER
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Stream Characterization Data Form

Stream Datasheet 6

Stream evaluations should be performed while facing upstream

Date: 4/3/2013 Client: EQT Site: MOPA SOOG

County/State: Doddridge / WV Investigators: Evan McClung & Jillian Tompkins

GPS Coordinates: LAT: 39.372N LONG: -80.71978 Data Entered by: E. McClung

Stream Name: Flint Run Field ID: MO-S-1

Type of Stream: Perennial Predominant weather in past: ☐ 24hrs ☐ 48hrs ☑ 72hrs intermittent rain

1. a) Approximate depth of water in stream: 12 in. ___ N/A
   b) Approximate width of water flow: 35 ft. ___ N/A
   c) Approximate width of stream: (from top of bank to top of bank) 40 ft
   d) Approximate width of stream: (from toe of bank to toe of bank) 34 ft
   e) Approximate depth of pool(s): 24 in. ___ N/A
   f) Approximate height of banks (channel depth): left 6 ft right 6 ft Flow: moderate
   g) OHWM Depth 24 in. ___ N/A
   h) OHWM Width 38 ft. ___ N/A

2. Is there a significant nexus to another water source? yes a) If so, is the water source: delineated
   b) If delineated, list connected features: MO-S-2

3. Plant Species Adjacent to stream (scientific name):
   Trees: Platanus occidentalis, Acer rubrum
   Shrubs: Asimina triloba
   Understory: POACEAE

4. Stream habitats present: ☑ Pools ☑ Runs ☑ Riffles ☐ N/A 5. Aquatic Fauna Present? yes If Yes - Describe: fish

6. Nature of the particles in the stream bottom:
   silt/clay/mud Most cobbles (2" - 10" diam.) Some
   sand little boulders (> 10" diam.) little
   gravel some bedrock None

7. Presence of:
   a) naturally occuring organic material in stream occasional
   b) logs or large woody debris in stream occasional

8. a) What is the extent of forest cover out to 50 ft. of the stream? left side 5 ft right side 5 ft
   And what is the % of that cover? left side 25 % right side 25 %
   b) What is the extent of shrub cover out to 50 ft. of the stream? left side 5 ft right side 5 ft
   And what is the % of that cover? left side 5 % right side 5 %

9. Water Appearance: clear If other, explain: ___ 10. Water Odor None If other, explain: ___

11. Pick the description that best fits the stream bank and the channel Left steep Right steep

12. Describe the streamside cover. Select Present or Common

Streamside Habitat and Land Uses

	Left	Right
Trees	present	present
Bushes, Shrubs	present	present
Tall grasses, ferns	common	common
Lawn		
Boulders/Rocks		
Gravel/Sand		
Bare Soil		
Pavement Structures		
Agriculture		
Other		
If other, explain:		

13. In the vicinity of the stream, select Present or Common

	Left	Right
Natural Streamside plant cover degraded		
Banks collapsed/eroded	present	present
Garbage/junk adjacent to the stream		
Foam or sheen on bank		
Mud, silt, or sand in or entering the stream		
Garbage/junk in the stream		
Yard waste on bank (clippings, leaves, etc.)		
Livestock in or with unrestricted access		
Actively discharging pipes		
Other pipes		
Ditches entering stream		

Additional Comments: perennial stream through pasture

Photograph 1 – View west (upstream) of Stream 1 at first proposed crossing (by pipeline)

Photograph 2 – View east (upstream) of Stream 1 at second proposed crossing (by pipeline)

Photograph 3 – View north (upstream) of Stream 1 at third proposed crossing (by access road)

Photograph 4 – View northeast (upstream) of Stream 1 at fourth proposed crossing (by pipeline)

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

October 8, 2013

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

Dear Mr. Albright:

We have reviewed our files for information on rare, threatened and endangered (RTE) species and sensitive habitats for the area of the proposed MOPA-S001 and MOPA-S006 pipeline project in Doddridge County, WV.

We have no known records of any RTE species or sensitive habitats within the project area. It has been noted that mussel surveys were conducted in Flint Run in September. 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.

Thank you for your inquiry, and should you have any questions please feel free to contact me at the above number, extension 2048. Enclosed please find an invoice.

Sincerely,

Barbara Sargent
Environmental Resources Specialist
Wildlife Diversity Unit

enclosure

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

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October 29, 2013

Ms. Janet Clayton
Environmental Resources Specialist
West Virginia Division of Natural Resources
Wildlife Resources Section
Operations Center
P.O. Box 67
Elkins, West Virginia 26241-3235

Re: Rare, Threatened and Endangered Species Consultation
MOPA-S001 & MOPA-S006 Pipeline Project
Doddridge County, West Virginia
EQT Gathering, LLC

Dear Ms. Clayton:

On September 26, 2013, a consultation request for Rare, Threatened and Endangered Species was submitted for the MOPA-S001 & MOPA-S006 Pipeline Project located in Doddridge County, West Virginia. The MOPA-S001 & MOPA-S006 Pipeline Project proposes multiple crossings of Flint Run, which is a state listed mussel stream. As a result, a mussel survey was conducted on September 24, 2013. A complete report summarizing the survey is enclosed for your review and approval.

Please contact me (724-831-5128) or Matt Albright (724-831-5101) with any questions.

Respectfully submitted,

Heather S. Krepsik
Senior Environmental Scientist

Matthew J Albright
Project Manager

c: Barbara Sargent, West Virginia Division of Natural Resources

Enclosure: Freshwater Mussel Survey for Proposed MOPA-S001 & MOPA-S006 Pipeline Project Crossings of Flint Run

230 Executive Drive, Suite 122, Cranberry Township, PA 16066 p | 724.772.7072 f | 724.772.7079

REPORT:

Freshwater Mussel Survey for Proposed MOPA-S001 & MOPA-S006 Pipeline Crossings of Flint Run in Doddridge County, West Virginia, 2013

Prepared for:

EQT

Where energy meets innovation.

115 Professional Place

Bridgeport, WV 26330

304-848-0061

Prepared by:

EnviroScience
Excellence In Any Environment

5070 Stow Rd.
Stow, OH 44224
800-940-4025
www.EnviroScienceInc.com

ES Project: 6222

October 17, 2013

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APPENDICES

Appendix A. Completed West Virginia Division of Natural Resources Field Survey Forms

Appendix B. Digital Images of the Proposed Crossings of Flint Run

Appendix C. EnviroScience WVDNR Scientific Collection Permit Addendum

ACKNOWLEDGEMENTS

EQT Gathering, LLC (EQT) provided funding for this project; Mr. Matthew Albright was the point of contact and project manager for Kleinfelder, on behalf of EQT. Mr. Ryan Schwegman served as the project manager and malacologist for EnviroScience, Inc. (ES). Mr. Mark Suchan (ES), Ms. Jordan Findley (ES), Mr. Dale Dunford, Mr. Chad Reasons and Mr. Nick Shoots assisted with fieldwork. Mr. Schwegman authored the report, Ms. Mary Mahoney (ES) produced the GIS mapping.

INTRODUCTION

EQT has proposed MOPA-S001 & MOPA-S006 pipeline project crossings of Flint Run in Doddridge County, WV. The proposed pipeline project will intersect Flint Run at five locations: Site 1 (N 39.380304, W -80.723948); Site 2 (N 39.378644, W -80.723808), Site 3 (N 39.378139, W -80.72376), Site 4 (N 39.376055, W -80.721124) and Site 5 (N 39.372368, W -80.719553) as shown in Figure 1. The West Virginia Division of Natural Resources (WVDNR) has classified this stream reach of Flint Run as a Group 1 stream. A Group 1 classification is defined as a high quality stream that has potential habitat for freshwater mussels, although state-listed mussel species may be encountered, federally listed endangered or threatened species are not expected.

Construction activities from this project could affect mussels in several ways. Those living in the direct impact area could be crushed, smothered, or dislodged by construction equipment, demolition debris, etc. Disturbance of the stream bed and riverbanks could alter flow patterns that result in scouring or sediment deposition, which are putative sources of unionid impairment and decline (Fuller, 1974; Aldridge *et al.*, 1987; Bogan, 1993; Williams, 1993). Additionally, host fish activity may be altered by changes in habitat or flow patterns, which could lead to disruption of unionids' life cycles.

Because all mussel resources are protected within West Virginia, a mussel survey and a possible relocation of mussels was required at each Site location to obtain project clearance. Kleinfelder has contracted EnviroScience, Inc. (ES) to perform the freshwater mussel services required for the proposed crossings of Flint Run.

METHODS

Mussel and Habitat Survey (Task 1)

Each Site within Flint Run Project Area was clearly defined by mapping provided by Kleinfelder prior to the survey. The centerline of the proposed crossing were marked by ES on the right and left banks. The area of direct impact (ADI) consisted of a 30m (98ft) construction ROW, 15m (50ft) upstream and downstream from the project's centerline.

The WVDNR requires that the mussel survey limits extend to 10m (33ft) upstream and to 25m (82ft) downstream from the ADI for this project type. Beginning at the proposed pipeline crossing centerline, the survey extended 25m (82ft) upstream and 40m (131ft) downstream, for a total survey area of 65 linear meters at Sites 1, 4 and 5. Due to the close proximity of Sites 2 and 3 (Figure 1) as well as the unique stream morphology, slightly modified survey extents were utilized to ensure adequate survey coverage. At Sites 2 and 3 the survey area extended 25m upstream of Site 3 and 40m downstream of Site 4, for a total of approximately 150 linear meters. Each survey area was then divided into 10m reaches and one 5m reach when needed. Flint Run had an average width of 5m, creating a series of 5x10m cells. A Nikon laser rangefinder (±1m) was used to make all measurements relative to the project centerline. An aerial view of the survey extends can be viewed in Figure 1.

WVDNR protocol requires 100% coverage of the survey area; assuming an effective search rate of 2m²/min, (22ft²/min). Based on these parameters, 25 person-minutes of search time was allocated to each 10m (33ft) cell. Timed search (qualitative) survey methods included visual and tactile searches using wading and snorkeling. Regularly, each surveyor performed random but limited bottom excavations to detect embedded mussels. Searches began at the downstream extent of each survey area and proceeded upstream to maximize visibility. Within each 10m (33ft) section of river, 2 Biologists/ Divers spent 15 minutes of search time for a total of 30 person-minutes. Bank searches for water deposited dead shells and muskrat middens were conducted for evidence of additional mussel species within the area.

GPS positions of search cell boundaries and translocation site (if needed) were recorded with a Garmin GPS model 60CSx. The GPS readings were taken midstream to avoid dense overhanging vegetation.

Mussel Translocation (Task 2)

Per the project scope, in the event any living, non-endangered mussels are found during Task One, a mussel salvage effort is to be conducted to remove mussels from the direct

impact area plus buffers. Since no live mussels were located within the survey limits of Sites 1, 2, 3, 4 and 5, a translocation was not performed.

RESULTS

Prior to fieldwork, ES confirmed the project scope with the WVDNR and received a project-specific scientific collection permit amendment (Appendix C). On September 24, 2013 an ES field team headed by Mr. Ryan Schwegman completed the required mussel surveys at the proposed crossings of Flint Run. Field conditions were very good; water temperature was 18.9 °C (66°F), visibility was 1m (39in). Prior to the survey, Matthew Albright of Kleinfelder supplied the ES field team with the necessary mapping to accurately delineate the survey location.

Survey Results

The proposed pipeline crossings of Flint Run was located at: Site 1 (N 39.380304, W -80.723948); Site 2 (N 39.378644, W -80.723808), Site 3 (N 39.378139, W -80.72376), Site 4 (N 39.376055, W -80.721124) and Site 5 (N 39.372368, W -80.719553) (Figure 1) (Digital Images #1-5). Flint Run was shallow (0.13m – 1m; (0.5ft – 3.1ft)), gently flowing, and its substrates were dominated by sand, gravel and cobble. Habitat within the survey area was characterized as suitable mussel habitat. No evidence of live or dead freshwater mussels was located within the survey extents of Sites 1, 2, 3, 4 and 5. Also, no evidence (live or dead shells) of federally endangered species was observed.

CONCLUSIONS

No recent evidence of live freshwater mussels was detected within the survey extents of Sites 1, 2, 3, 4, and 5 therefore ES considers it unlikely that construction activities would directly impact freshwater mussel populations. Suitable mussel habitat was found to be widespread, however no evidence of mussels was located after significant search efforts. The potential for any indirect impacts to stream habitat and water quality will likely be minimized by the proper implementation of standard best management practices during project construction.

LITERATURE CITED

Aldridge, D. W., B. S. Payne, and A. C. Miller. 1987. The effects of intermittent exposure to suspended solids and turbulence on three species of freshwater mussels. Environmental Pollution 45:17-28.

Bogan, A. E. 1993. Freshwater bivalve extinctions (Mollusca: Unionoida): a search for causes. American Zoologist 33:599-609.

West Virginia Division of Natural Resources. 2013. West Virginia Mussel Survey Protocols. March, 2013.

Williams, J. D., M. L. Warren, Jr., K. S. Cummings, J. L. Harris, and R. J. Neves. 1993. Conservation status of freshwater mussels of the United States and Canada. Fisheries 18:6-22.

FIGURES

Figure 1. Aerial View of the EQT Proposed MOPA-S001 & S006 Pipeline Crossings of Flint Run, Doddridge County, WV.

Survey Area
Pipeline
Stream

600 300 0 600 Feet

200 100 0 200 Meters

N

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EQT
EnviroScience
Excellence In Any Environment

Date: 10/17/2013 Path: O:\2_Projects\Kleinfelder\6170_Flint_Run\GIS\Fig1_Aerial.mxd

Basemap courtesy of ESRI (Microsoft 2011).

APPENDICES

APPENDIX A

Completed West Virginia Division of Natural Resources Field Survey Forms

SITE RECORD - WVDNR

1. Collector Name	Ryan Schwegman	**2. Collector ID**	2013.182		
3. Site Name		**4a. Site Type** (circle one)	Point	Transect	(Area)
4b. System Type	(Circle One)	Aquatic Lacustrine	(Aquatic Riverine)	Aquatic Palustrine	Terrestrial Subterranian
5. LLID		**6. Permittee ID**			
7. Date	24th	**Month**	9	**Year: 2013**	
8. Project	Proposed Pipeline Crossing of Flint Run	**9. Work Plan**	Mussel Survey	**10. Job**	
11. Travel Directions	**Please See attached report**				
12. Origin latitude dd	39.371484	**13. Origin Longitude dd**	-80.720121		

Latitude and longitude are recorded as decimal degrees (dd). Refer to appropriate protocol manual pages for further information and means of calculation.

For Sites with Transects Only:

14. Terminus latitude dd	**15. Terminus Longitude dd**	
16. NA Datum (1927 or (1983) preferred))	**17. Accuracy Code**	**18. Map Attached?** (circle one ->) yes (no)
19. County Name: Doddridge	**20. Quadrangle name: Smithburg**	
21. PDOP	**22. Rover File Name (.ssf)**	
23. Corrected File Name (.cor)		

24. Notes:

Current Stream and Weather Conditions

Section A			
1. Collector Name : Ryan Schwegman			2. Collector ID : 2013.182
3. Stream/Site Name: Flint Run			
4. LLID			
5. Date	Month 9	Day 24	Year 2013
6. Project: Poprosed Pipeline Crossing	7. Work Plan:Mussel Survey		8. Job:
9. Permitee ID			

Section B			
Weather Conditions	**Current Conditions**	**Past 24 Hours**	**Past Week**
	Precipitation ☐ Moderate or heavy rain shower ☐ Light rain shower ☐ Light rain ☐ Moderate rain ☐ Heavy rain **Sky Conditions** 0 25 50 75 100% cloud cover _____24____Air temp (°C)	**Precipitation** ☐ Moderate or heavy rain shower ☐ Light rain shower ☐ Light rain ☐ Moderate rain ☐ Heavy rain ☐ None **Sky Conditions** 0 25 50 75 100% cloud cover ____24____Air temp (°C)	Has there been a heavy rain in the last 7 days? Yes/No

Section C			
Stream Characterization	**Human Influence**		
	☐ Engineered Dam	☐ Pipes(inlet/outlet)	☐ Trash
	☐ Pipeline crossing	☐ Channelized	☐ Island_____
	☐ Ford	☐ Bridge (pillars in stream)	☐ Other_____
	☐ Pipeline (parallel to stream)	☐ Bridge (no pillars in stream)	☐ Wall/Dike/Revet-ment/Riprap
	In Stream Cover		
	☐ Debris Dam	Blow Down	☐ Beaver Dam
	☐ Woody debris	☐ Other _____	

Section D				
Aquatic Vegetation	**Indicate the dominant types and record the dominant species present.**			
	☐ Rooted emergent	☐ Rooted floating	☐ Floating algae	☐ None
	☐ Rooted submergent	☐ Free floating	☐ Attached algae	☐ Moss
	Percent of the reach with aquatic vegetation _____<1.0% (in terms of area)			

Section E										
Watershed Features	**Human Influence/Watershed Features** (within survey reach)					P=>10m from shore, C=within 10m, B=on the bank, D=dominant land use (check no more than two)				
		P	C	B	D		P	C	B	D
	Wall/Rip rap					Railroad (Active)				
	Railroad (rails to trails)					Railroad (Inactive)				
	Buildings					Landfill/trash				
	Pavement					Park/Lawn				
	Road					Row Crops				

	Pasture					Feed lots				
	Logging operations					Mining activity				
Watershed Features (Cont.)		P	C	B	D		P	C	B	D
	Forest				☒	Commercial/Industrial				
	Old field					Hay field		☒		
	Residential				☒	Other_____				
	Local Watershed Erosion (pertains to land use, not failing stream banks) ☒ None ☐ Moderate ☐ Heavy									

Section F

Water Quality

Temperature (°C) __19___
Conductivity uS/cm _____
Dissolved Oxygen mg/L_____
pH _____
Turbidity (mg/L) _____
Secchi depth (m.mm) _____
Meters used:_____
_____
Hach Kit used Yes/☒No
Water Sample Collected for Lab analysis Yes/No
Flow at nearest USGS gauging station (cfs)_____
Gauging station:_____

Water Odors
☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other_____

Turbidity (visual)
☐ Clear ☒ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other _____

Water Surface Oils
☐ Slick ☐ Sheen ☒ None
☐ Globs ☐ Flecks ☐ Other_____

Section G

Sediment/ Substrate

Odors
☒ Normal ☐ None ☐ Sewage ☐ Sludge
☐ Petroleum ☐ Chemical
☐ Anaerobic (methane)
☐ Other_____

Deposits
☐ Leaf Litter ☐ Sand
☒ Relict Shells ☒ Other ____
☐ Paper/fiber ☐ Other _____

Substrate Type (rank top three, 1 being dominant)
_Bedrock __Boulder __Cobble ___Gravel Sand 1, 2, 3_Silt/clay

Section H

Streambank and Riparian Zone Characterization

Canopy Cover
☐ Mostly Open ☒ Shaded
☐ Mostly Shaded ☐ None

Stream Bank Failure Present? (within survey reach only)
Right Descending Bank Yes/☒No
Left Descending Bank Yes/☒No

Riparian Zone (10 meters) fully intact
Right Descending Bank ☒Yes/No
Left Descending Bank ☒Yes/No

Notes:

APPENDIX B

Digital Images of the Proposed Crossing of Flint Run

Digital Image 1. View of Site #5

Digital Image 2. Downstream View of Site #3 and Upstream View of Site #2

Digital Image 3. Downstream View of Site #1

Digital Image 4. Substrates at Site #4

APPENDIX C

EnviroScience WVDNR Scientific Collection Permit Addendum

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

ADDENDUM TO SCIENTIFIC COLLECTING PERMIT NO. 2013.182

Permittee: Ryan Schwegman
Address: EnviroScience, Inc.
3781 Darrow Road
Stow, OH 44224

Expiration Date: September 30, 2013

THE FOLLOWING PROVISIONS ARE ADDED TO THIS PERMIT: Freshwater mussel surveys and relocations are permitted in Flint Run, Doddridge County (pipeline crossings – Kleinfelder).

THIS ADDENDUM MUST BE ATTACHED TO ORIGINAL PERMIT.

Must be signed before valid.

Signature of permittee

Scientific Collecting Permit Coordinator

Date of issue 9-6-2013

cra
cultural resource analysts, inc

Cultural Resources Records Review

October 14, 2013

Prepared for:

Megan E. Landfried
Environmental Coordinator
EQT Gathering, LLC
115 Professional Place
Bridgeport, WV 26330
Office: 304.848.0061

Project Identification

EQT MOPA-S001 & MOPA S006 Pipeline Project
Cultural Resources Desktop Analysis
Doddridge County, West Virginia
CRA Proposal No.: WV13P-2350
CRA Report # 13-361
Lead Agency: U.S Army Corps of Engineers, Huntington District

Project Description

For the purpose of this records review, the Project Area is approximately 2.62 miles of pipeline and associated access roads located along floodplain and upland landforms in the Grant District of Doddridge County, West Virginia. The study area for the records review includes the proposed pipeline right-of-way (ROW) and a 1,000-ft buffer on each site of the ROW centerline (Figures 1 and 2). The completion of this study will aid EQT Gathering, LLC (EQT) and the Huntington District to achieve compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

Methods

Project mapping provided by Kleinfelder on behalf of EQT was overlaid on modern and historic maps. Due to differences of scale and mapping accuracy, Project boundaries on historic-period maps are not expected to be as reliable as the boundaries presented on the modern United States Geological Survey (USGS) 7.5-minute topographic quadrangles. Once the maps were produced, Cultural Resource Analysts, Inc. (CRA) staff compared them against records maintained by the West Virginia State Historic Preservation Office (WVSHPO) (Attachment A). Files examined at the WVSHPO included 1) archaeological site files for Doddridge County, 2) the Center Point, WV and Smithburg, WV topographic quadrangles depicting the locations of recorded archaeological sites and the boundaries of previously surveyed areas, 3) CRM reports, and 4) the National Register of Historic Places (NRHP). The WVSHPO's Geographic Information System (GIS) for architectural properties

was also utilized to locate any buildings or structures documented on the West Virginia Historic Property Inventory (WVHPI).

In addition to the resources maintained by the WVSHPO, CRA examined readily available historic-period maps including 15-minute series USGS topographic quadrangles and a topographic map produced by the West Virginia Geological Survey (WVGS).

WVSHPO Records Review

The review of the archaeological files maintained at the offices of the WVSHPO in Charleston, West Virginia, was completed by CRA personnel on September 27, 2013 (Attachment A). In addition, CRA personnel used the WVSHPO's GIS for architectural resources to identify any buildings or structures listed on the WVHPI located within the study area.

Previous Cultural Resource Surveys

One previous Phase I cultural resource survey has been completed within portions of the study area and the project ROW (Stoll and Erickson 2013) (Figure 2). Survey FR# 13-135-DO-2 was completed for a proposed freshwater impoundment project for the EQT Production Company (EQT) Gessler Centralized Impoundment Project under the jurisdiction of the United States Army Corps of Engineers (USACE), Huntington District. The investigated area was approximately 17.1 acres (6.9 ha) in size and resulted in the identification of archaeological site 46DO54, and the recording of one architectural resource WVHPI DO-0013-0135.

Archaeology

The review of the archaeological files and records discovered one previously recorded archaeological site located within the project corridor and study area. Site 46DO54, consists of a 60-x-15 m historic artifact scatter located on the west bank of Flint Run. The site was discovered during a survey that was completed for the EQT Gessler Centralized Impoundment Project (Stoll and Erickson 2013). No diagnostic artifacts were recovered during the survey and all artifacts were recovered from the A/Ap horizon or historic fill. The authors believe the site dates from the late nineteenth–early twentieth centuries through present, and that the artifacts were probably associated with several structures and a foundation located outside the area of investigation. The NRHP eligibility of site 46DO54 was not determined during this investigation; however, the investigators recommended that the portion of the site that is located within the EQT Gessler project area would not contribute to its NRHP eligibility (Appendix B). They recommended that the proposed project had no adverse effect on portions of site 46DO54 that were located within the project area.

Architecture

The review of the West Virginia Historic Property Inventory forms discovered one historic resource within the study area (WVHPI DO-0013-0135). The property is a small, family dairy farm, constructed in 1890 and located at 9371 Big Flint Road (Co Rd 3), Center Point, West Virginia, 26339 (Appendix B). The property consists of a house, a modern log cabin, silo, milking parlor, firepit, abandoned gas well, shed, two bridges, water box and well pipe, other pipes, and a flagstone and brick walkway. The complex was determined ineligible for listing on the NRHP under Criterion A or C.

Historic Maps Review

Historic USGS 15-minute topographic quadrangles and a WVGS topographic map for Doddridge County were reviewed to determine if any structures were located within the study area. According to

the 1905 Center Point, WV and 1924 Center Point, WV USGS 15-minute topographic quadrangles, and the 1912 map of Doddridge and Harrison Counties, West Virginia, the study area and surrounding vicinity was not heavily developed (Figures 3–5). The area is rural with residences and farm complexes scattered across the landscape, typically adjacent to or near roads in valley settings. Approximately eight or nine structures and several oil/gas wells are noted within the study area. One cemetery that is associated with the Chestnut Grove Church was identified on the 1905 USGS Centerpoint quadrangle. The Project ROW and access roads are mapped in very close proximity to several of these buildings and oil/gas wells, but because of the mapping scale it is not possible to determine the precise locations relative to the Project ROW and access road locations.

NRCS Soils Survey Review

Analysis of the SSURGO data acquired for the project identified seven NRCS soil-mapping units belonging to six distinct series or complexes (Figure 6; Table 1). Nearly the entire northern half of the study area is located within a valley setting containing alluvial soil of the Chagrin, Monongahela, and Sensabaugh series. Soil maps indicate that the southern portions of the project ROW are predominately colluvial Gilpin-Peabody complex soils with slopes ranging between 15 and 70 percent. These Gilpin-Peabody complex soils have little or no potential to contain buried archaeological sites. The areas with the highest potential for buried archaeological sites are those areas of alluvial soils at in the northern half of the ROW crossings of Flint Run and Brush Run and several areas of access roads near ROW crossings of Flint Run in the southwest quadrant of the study area.

Table 1. Study Area Soils Data.

Soil Unit	Parent Material Type
Chagrin silt loam (Ch)	Alluvium
Gilpin-Peabody complex, 15 to 35 percent slopes, very stony (GsE)	Colluvium
Gilpin-Peabody complex, 35 to 70 percent slopes (GsF)	Colluvium
Monongahela silt loam, 8 to 15 percent slopes (MoC)	Alluvium
Sensabaugh silt loam, 3 to 8 percent slopes, rarely flooded (SeB)	Alluvium
Vandalia silt loam 15 to 35 percent slopes, very stony (VsE)	Colluvium

On-line Review

The websites of the Doddridge County Historical Society, the WVGenWeb, the West Virginia Cemetery Preservation Association, and TopoZone were visited to identify information for historic cemeteries. The Chestnut Grove Cemetery was identified in the southwest quadrant of the study area.

The WVGenWeb provides information for Doddridge County cemeteries reported by private individuals and organizations interested in the preservation of cemeteries and genealogy. In addition, a listing with mapped locations of historic cemeteries in Doddridge County was identified at TopoZone.com. The listing can be searched by district or longitude and latitude.

Conclusions

Information generated by this review indicates the following:

- One previous cultural resources survey (FR# 13-135-DO-2) was conducted within a portion of the study area and project ROW (Figures 1 and 2).
- One recorded archaeological site, 46DO54, is located within the project study area and appears to extend into the project ROW (Figures 1 and 2). The portion of the site located

within the Gessler EQT project area was evaluated, and recommended not to contribute to potential NRHP eligibility (Appendix B).

- Based on current information the project may affect a previously documented portion of archaeological site 46DO54, which based on current information is not considered eligible to the NRHP.
- One recorded architectural property, WVHPI DO-0013-0135, is located within the project study area approximately 65 m west of the ROW (Figures 1 and 2). Information obtained from the WVSHPO indicates this resource was determined ineligible for listing on the NRHP under Criterions A or C (Appendix B and C).
- The Chestnut Grove Cemetery associated with the Chestnut Grove Church was identified on historic and modern topographic maps at the edge of the study area, approximately 237 m south of the nearest stream/wetland crossing, and 589 m southwest of the nearest part of the pipeline ROW (Figures 1 and 2). No other recorded cemeteries were identified within the study area.
- Historic maps depict 8 or 9 structures and additional oil/gas wells within the study area. Two structures depicted on the 1905 and 1924 USGS quadrangles and three structures on 1912 county map are located in close proximity to two stream crossings and a work space near the confluence of Flint and Brush Runs (Figures 3–5).

Based on extant information the Project will have no affect on any recorded archaeological sites, architectural resources, or historic-period cemeteries listed on, or determined eligible to, the NRHP. Because of its location and distance from the Project, it is unlikely that the unrecorded Chestnut Grove Cemetery will be affected by the Project. If any archaeological or other types of cultural resources are found during the construction of the Project, all work in the area of discovery should cease and the Huntington District should be contacted.

FOR Cultural Resource Analysts, Inc.

Jason D. Moser

Jason D. Moser, PhD, RPA

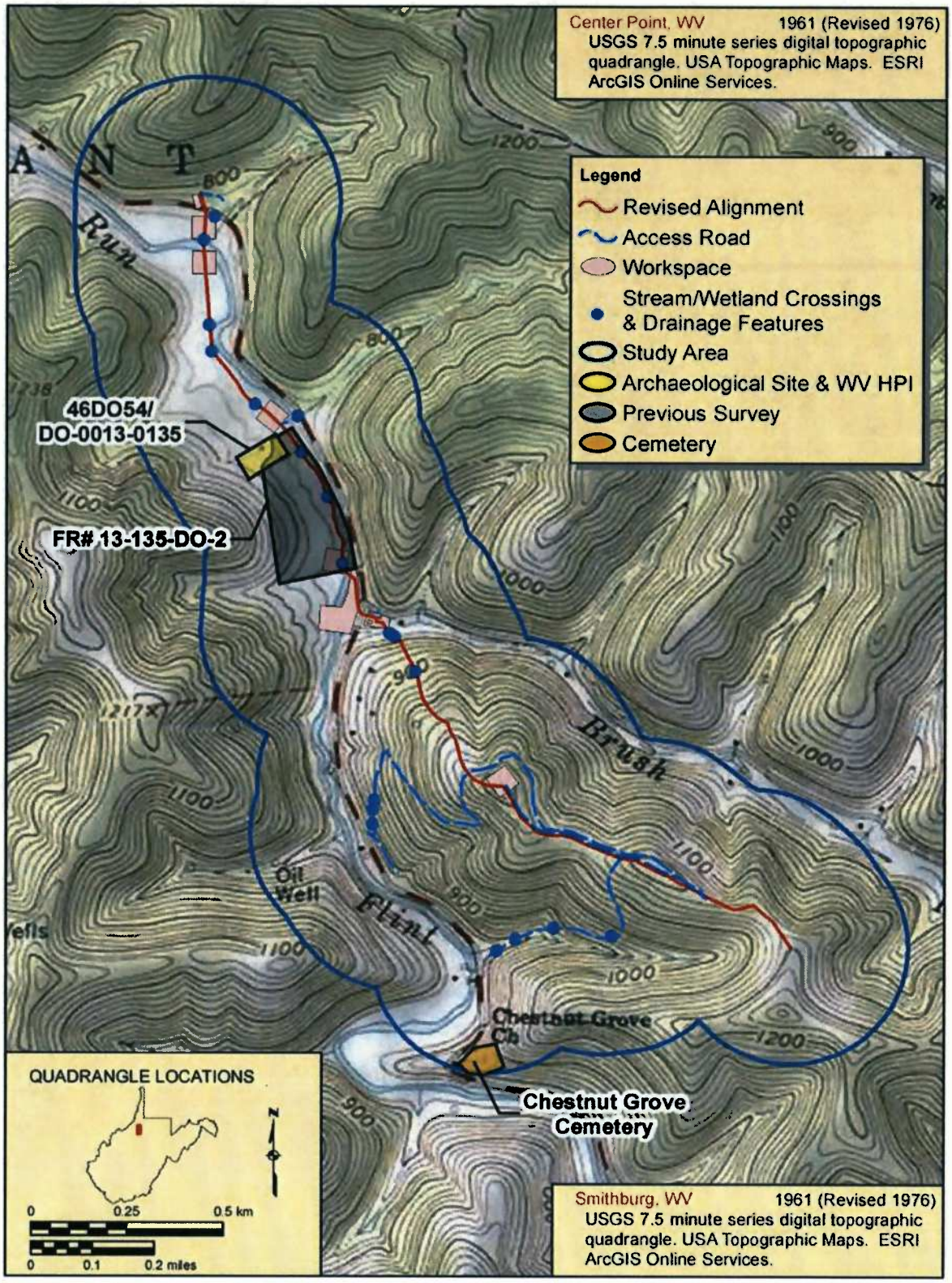

Figure 1. Portions of the USGS Center Point, WV and Smithburg WV 7.5-minute quadrangle depicting Project ROW, study area, recorded cultural resources, and previous cultural resource surveys.

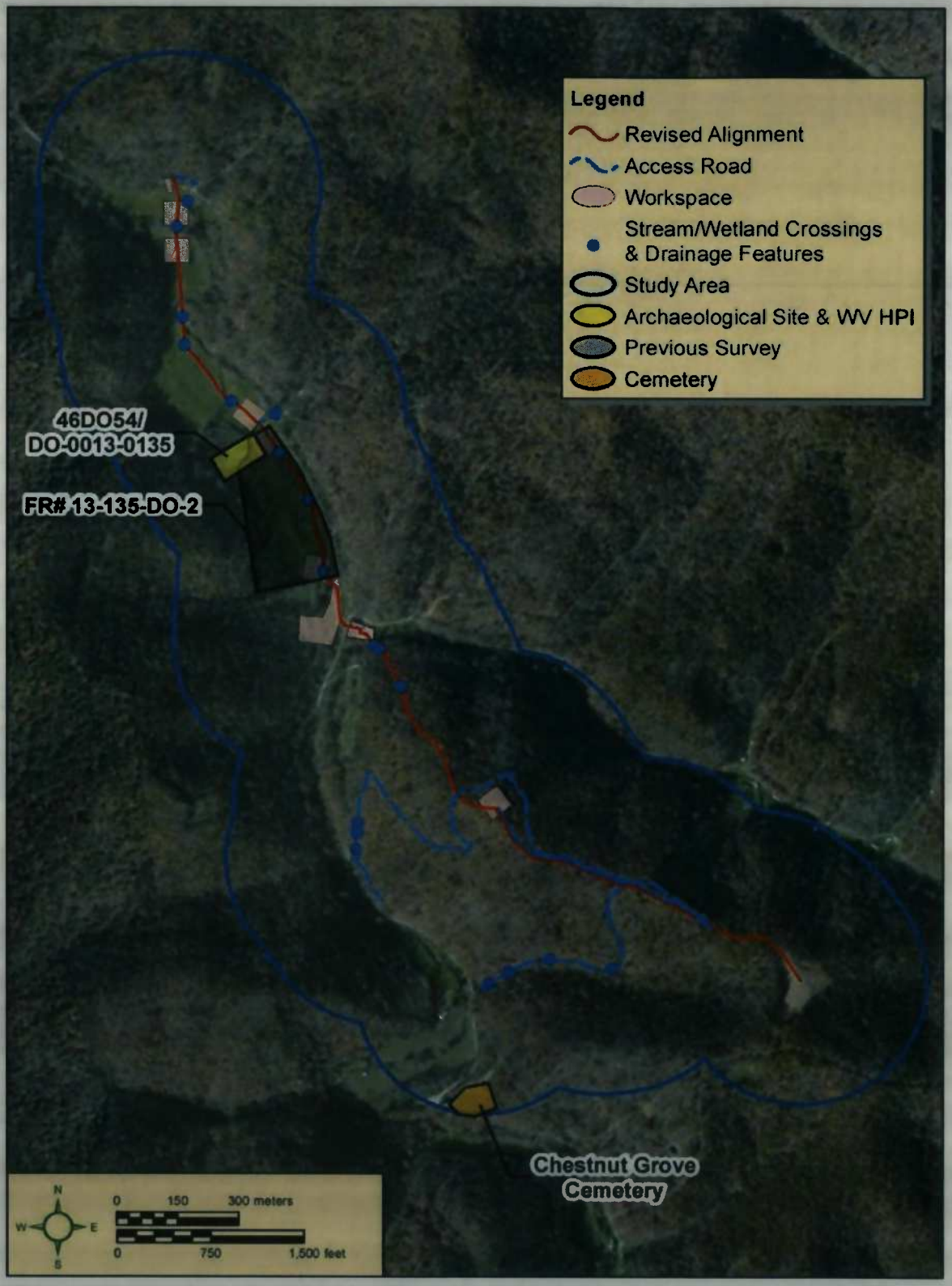

Figure 2. Aerial photograph depicting Project ROW, study area, recorded cultural resources, and previous cultural resource surveys (Microsoft Corporation 2012).

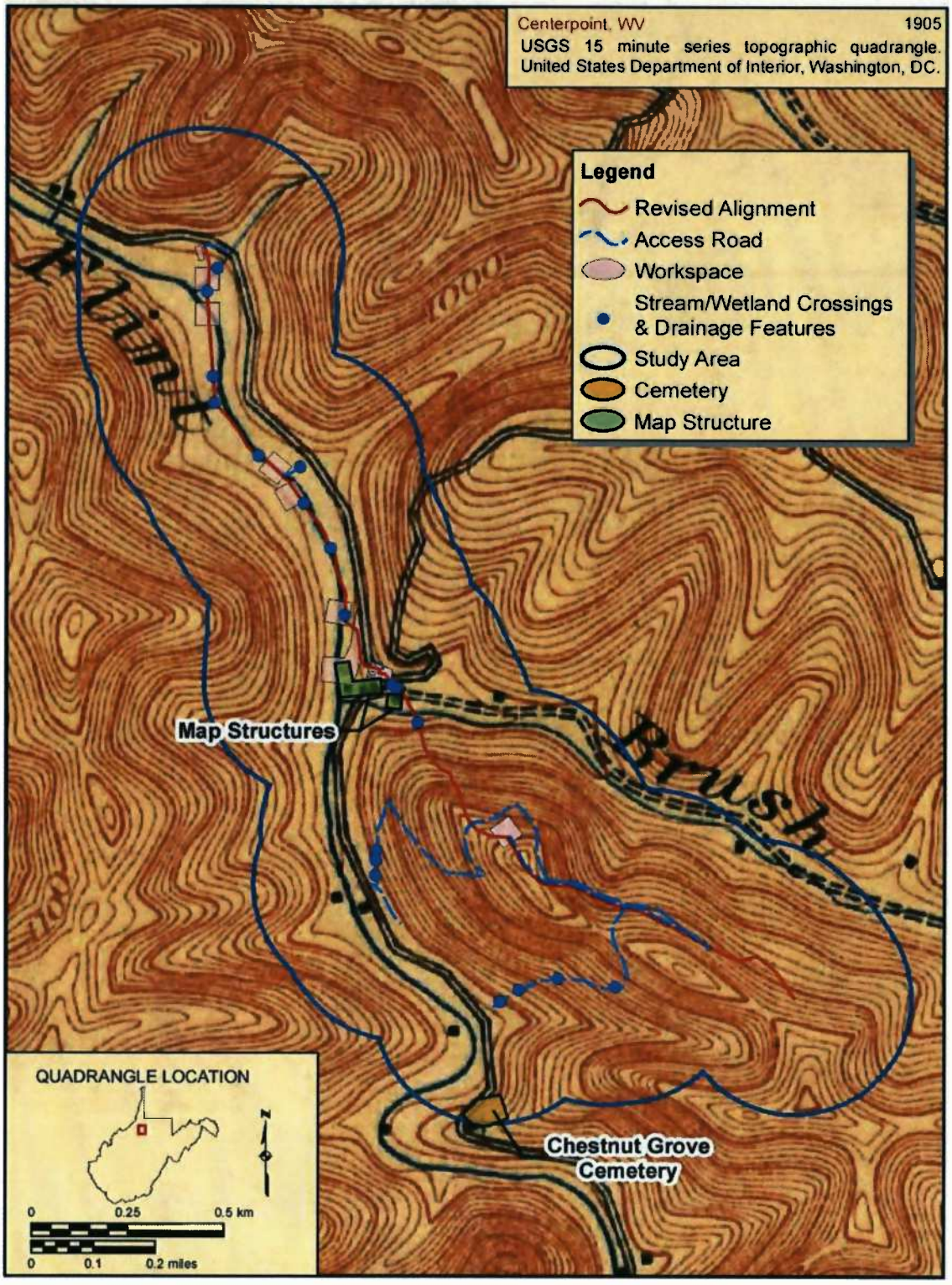

Figure 3. Portions of the 1905 USGS Centerpoint, WV, 15-minute quadrangle depicting structures and cemeteries within the project study area.

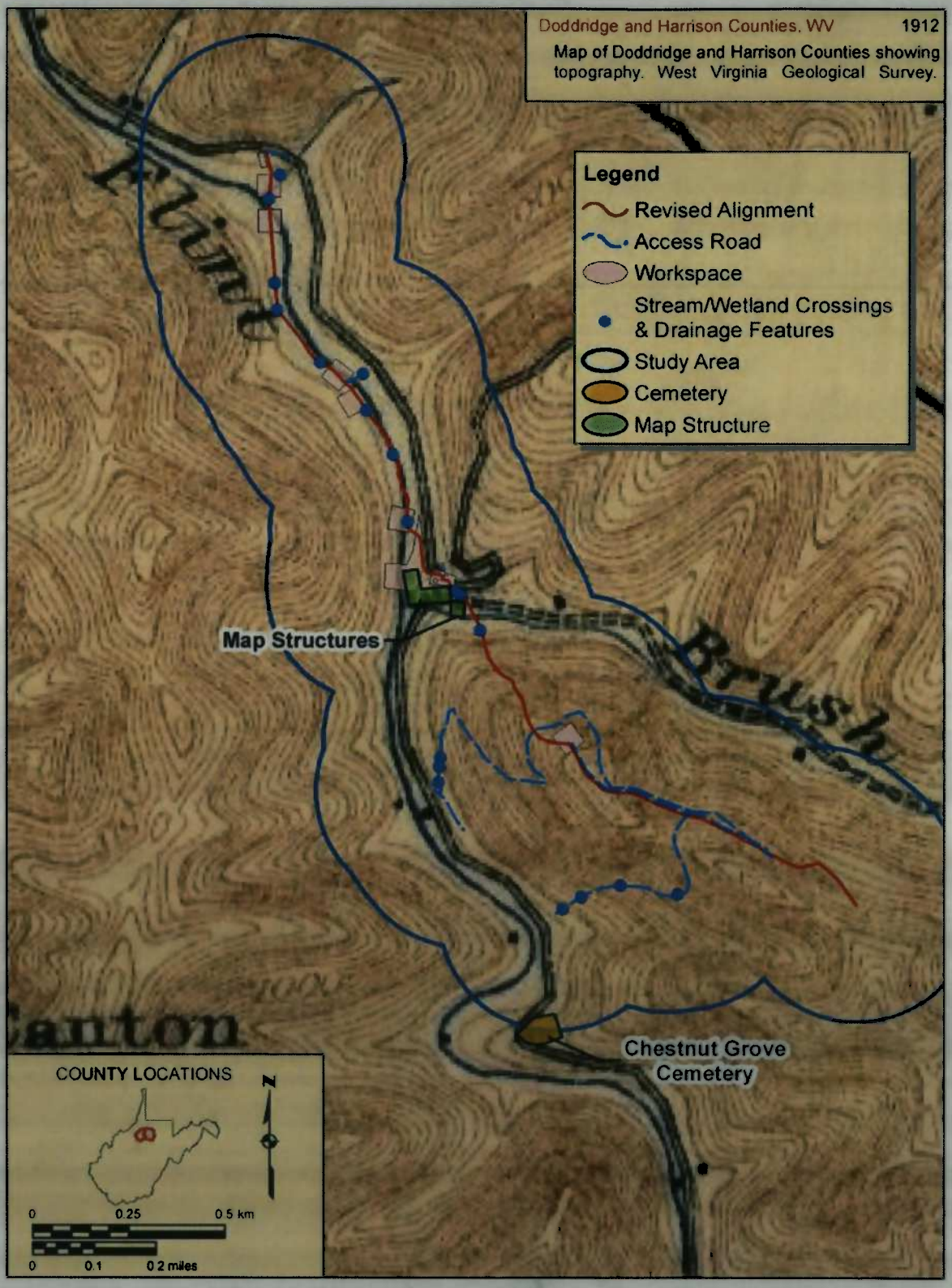

Figure 4. Portions of the WVGS 1912 Map of Doddridge and Harrison Counties depicting structures and cemeteries within the project study area.

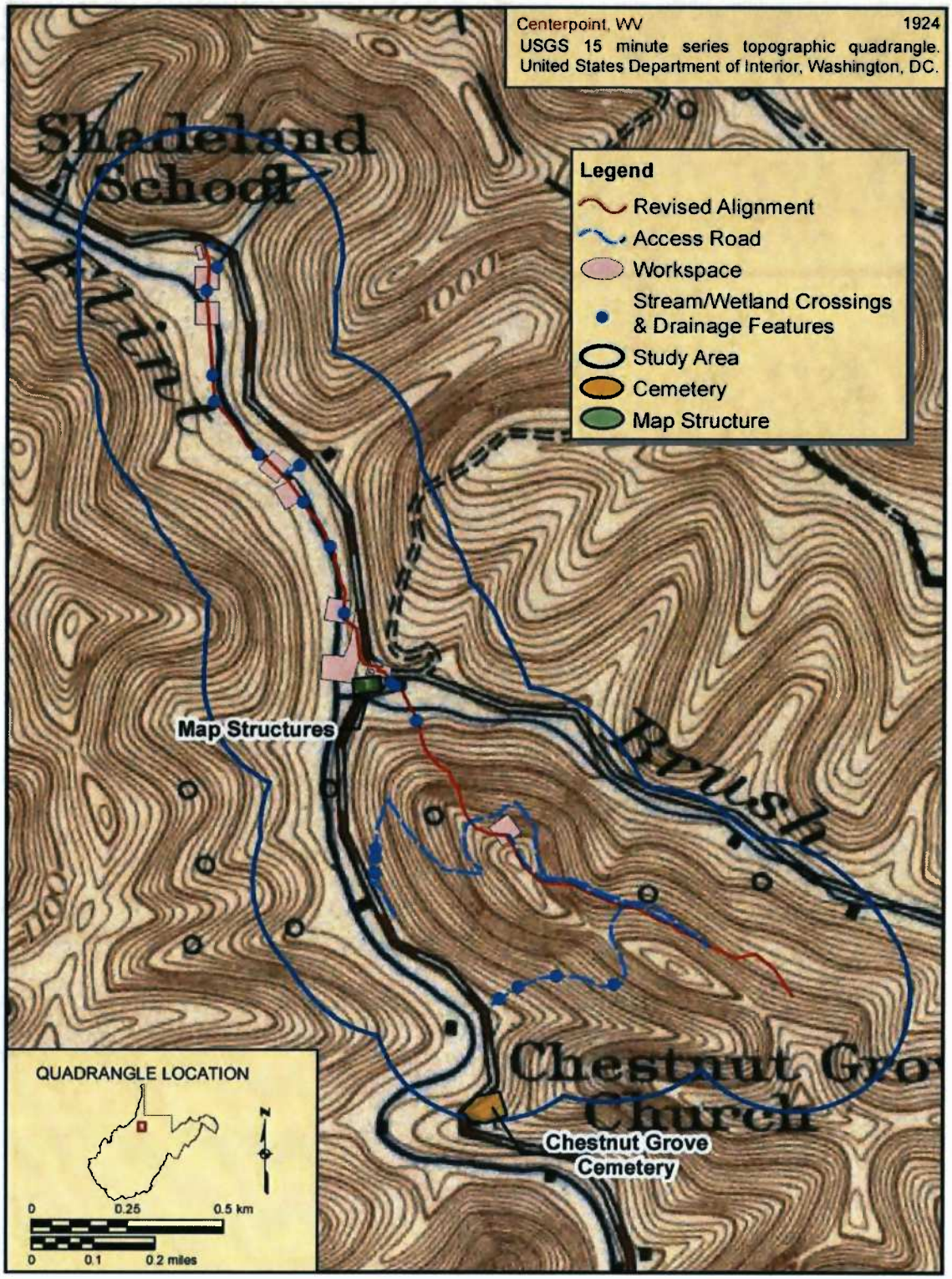

Figure 5. Portions of the 1924 Center Point, WV 15-minute quadrangle depicting structures and cemeteries within the project study area.

Figure 6. Soils map depicting Project and areas mapped as alluvial and colluvial soils.

References

Microsoft Corporation

2012 Bing Maps. ESRI, ArcGIS Online Services for Doddridge County, West Virginia. Accessed September 27, 2013.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture.

n.d. Soil Survey Geographic (SSURGO) Database for Doddridge County, West Virginia. Available online at http://soildatamart.nrcs.usda.gov. Accessed September 27, 2013.

Stoll, Courtney, and Luke W. Erickson

2013 *Phase 1 Cultural Resource Report for the EQT Production Company Gessler Centralized Impoundment Project in Doddridge County, West Virginia.* Environment & Archaeology, LLC, Florence, Kentucky.

Trader, Patrick D.

2001 *Guidelines for Phase I, II, and III Archaeological Investigations and Technical Reports.* Prepared by the West Virginia State Historic Preservation Office, Charleston.

United States Geological Survey

1905 USGS 15-minute series Centerpoint, WV topographical quadrangle. United States Geological Survey, Washington, DC.

1924 USGS 15-minute series Centerpoint, WV topographical quadrangle. United States Geological Survey, Washington, DC.

1942 USGS 15-minute series Wheeling, WV_PA_OH topographical quadrangle. United States Geological Survey, Washington, DC.

1961 (Revised 1976) USGS 7.5-minute series Center Point, WV topographical quadrangle. United States Geological Survey, Washington, DC.

1961 (Revised 1976) USGS 7.5-minute series Smithburg, WV topographical quadrangle. United States Geological Survey, Washington, DC.

West Virginia Geological Survey

1912 Map of Doddridge and Harrison Counties, WV Showing Topography. United States Geological Survey, Washington DC.

West Virginia State Historic Preservation Office

1991 Site Survey form for Historic Property DO-0013-0135. Records on file, West Virginia State Historic Preservation Office, Charleston.

ATTACHMENT A

WVSHPO USER REGISTRATION & RESEARCH RECORD FORM

West Virginia State Historic Preservation Office

Cultural Resources Files and Library
User Registration and Research Record Form

INSTRUCTIONS: Part I must be completed before you will be permitted access to the SHPO Cultural Resource Files and Library. Part II is a record of the site files, cultural resource reports, USGS topographic maps and other materials you utilize during your visit. Part III will be completed and signed by a SHPO staff member only when you have completed your research and have returned the materials to which you have been given access.

I. IDENTIFICATION

DATE: 9/27/13

Name (s) Amber Hill

Organization or Company: CRA

Address: 3556 Teays Valley Rd Suite 3

Hurricane, WV Phone 562-7233

FR Number (if known) _____

II MATERIALS UTILIZED
ARCHAEOLOGY:
USGS QUAD MAP NAMES:

Center Point WV

Smithburg WV

ARCHAEOLOGY SITE FORM #s

46DO54

CRM Reports/Publications

13-135-DO

SURVEY AND NATIONAL REGISTER:
County Survey Files

National Register Files

Other Materials

III MATERIALS RETURNED IN GOOD ORDER

DATE: 9/27/13 # Photocopies ____ $ ____

USER NAME: [signature]

SHPO STAFF SIGNATURE: [signature]
(Signature assures that materials have been returned to file)

ATTACHMENT B

ARCHAEOLOGICAL SITE AND WVHPI FORMS

WEST VIRGINIA ARCHAEOLOGICAL SITE FORM

(Revised 1999)

Type of Form (Check One): ☑ New Form ☐ Revised Form

1. Site No.: 46 DO54 **2. Site Name:** Gessler Site #1

3. County: Doddridge **4. 7.5' Quadrangle:** Center Point

5. UTM Zone (circle one): (17) 18 **Northing:** 4358467 **Easting:** 0523955

6. Location Description: Along Flint Run, Just north of it's confluence with Brush Run. Big Flint Road runs parallel with Flint Run.

The nearest road intersections are Big Flint Rd and Riggins Rd to the south, and Big Flint Rd and WV SR 23 to the north.

7. Ownership (Name/Address/Tenant): Shirley Lee Gessler, 9371 Big Flint Rd., West Union, WV 26456

8. Temporal Affiliations: ☐ Prehistoric ☐ Protohistoric ☑ Historic ☐ Prehistoric and Historic

9. Prehistoric Temporal Period(s) Represented: ☐ Unassigned ☐ Paleoindian ☐ Archaic, E M L ☐ Woodland, E M L ☐ Late Prehistoric ☐ Protohistoric

10. Historic Temporal Period(s) Represented: ☐ 1700-1750 ☐ 1751-1800 ☐ 1801-1850 ☐ 1851-1900 ☑ 1901-1950 ☑ 1951-Present ☐ Unassigned

11. Prehistoric Site Type (select as many as appropriate): ☐ Lithic Scatter ☐ Cave/Rockshelter

Habitation: ☐ Camp ☐ Village ☐ Hamlet **Extractive:** ☐ Quarry ☐ Workshop ☐ Earth Mound ☐ Stone Mound ☐ Earthwork ☐ Burial Area ☐ Petroglyph/Pictograph

12. Historic Site Type (select as many as appropriate): ☐ Residential ☑ Farmstead ☐ Commercial ☐ Industrial ☐ Military ☐ Trail/Trace/Road ☐ Other

Is site associated with any standing structures? ☑ Yes ☐ No

Has a WV Historic Inventory Form been completed for the structure? ☑ Yes ☐ No

13. Site Condition: ☐ Unknown ☐ Undisturbed ☐ Destroyed

☑ **Disturbed (explain):** Some structures have been completely destroyed or heavily altered by landowner.

14. Describe current land use: Driveway, house and outbuilding plot/lawn.

15. Topographical Location: ☐ Floodplain ☑ Terrace ☐ 1 ☒ 2 ☐ 3 ☐ Ridgetop

☐ Gap/Saddle ☐ Hillside/Bench ☐ Bluff ☐ Other: _____

16. Physiographic Province: ☑ Appalachian Plateau ☐ Transitional ☐ Ridge and Valley

17. Soils: Soil Association Monongahela silt loam, 8-15% slope MoC, Chagrin silt loam, 0-2% Ch, Vandalia silt loam, 15-25% VaD

Soil Series-Phase/Complex N/a-No map in soil survey

18. Vegetation: grasses 19. Elevation: 765' amsl (ft/m amsl)

20. Slope %: 0-25% 21. Slope Direction: east

22. Nearest Water Source (select only one, as appropriate):

Name: Flint Run ☐ Spring ☐ River ☑ Perennial Stream

☐ Intermittent Stream ☐ Swamp/Bog ☐ Other: _____

Major Drainage (name): McElroy Creek Minor Drainage (name): Flint Run

23. Distance to water (ft/m) 80 ft (horizontal) 10 ft (vertical)

24. Site Area (Dimensions in meters): 5500

Basis for site area estimate: ☐ Paced ☐ Taped ☐ Historic Maps ☐ Aerial Photograph

☐ Transit/Alidade ☐ Unrecorded ☑ Other GIS mapping

25. Site Description (include description of site, setting, nature and location of artifacts and concentrations, features, and significance of site in a local or regional context. Use Continuation Sheet if necessary:

The portion of the site where shovel tests were excavated, were within a proposed access road for the project. A total of eight shovel tests were positive for historic cultural material, all of which was found within the A/Ap-horizon. The artifacts recovered were not particularly diagnostic for a historic time range. The material was primarily architectural, with a few from the kitchen group. Just outside of the access road was an old barn foundation. It is especially likely that the destruction of the barn accounts for the architectural artifacts, which numbered eleven artifacts. The kitchen artifacts numbered four artifacts. Per a letter dated December 13, 2012 that Potesta received from WV DCH, it was requested that a HPI Form be completed for a house and silo located within/near the Gessler Project Area. The HPI evaluation identified a circa 1890 vernacular residencewith an associated suspension foot bridge, timber bridge, water box and well pipe at driveway, flagstone/brick walkway, milking parlor, and silo. These are also near the artifacts recovered and the barn foundation that was noted. It is hyposthesized that they were likely all part of one farmstead, so the structures and foundation were included within the site boundary. However, no shovel testing around those structures or foundation because they were outside the set project area. The area is currently in use as a residence/farmstead, and the site is within typical lawn grasses.

26. Investigation Type (select as many as appropriate): ☐ Examination of Collection

☐ Pedestrian Survey ☐ Surface Collection ☑ Shovel Tests ☐ Test Unit(s)

☐ Test Trench(es) ☐ Deep Test(s) ☐ Auger/Soil Corer ☐ PZ Removal

☐ Mitigation/Block Excavation ☐ Aerial Photographs ☐ Remote Sensing _____

☐ Unknown ☐ Other: _____

27. Surface Collection Strategy (select as many as appropriate):

☑ Not Applicable ☐ Grab Sample ☐ Diagnostics ☐ Controlled-Total ☐ Controlled-Sample

☐ Other (specify): _____

28. Surface Visibility (select only one as appropriate): ☐ None ☐ Less than 10%

☐ 11-50% ☑ 51-90% ☐ 91-100% ☐ Unrecorded

29. Has site been excavated? ☑ Yes ☐ No Estimated Percentage of Site Excavated: Unknown

30. Artifacts Collected (estimate percentage of artifacts collected): 100% seen

Prehistoric Artifacts Collected (select as many as appropriate; include frequencies):

Lithics: ☐ Debitage_____ ☐ Tools_____ ☐ Projectile Points_____ ☐ FCR_____

Ceramics: ☐ Rim Sherds_____ ☐ Body Sherds_____ ☐ Faunal Remains_____

☐ Botanical Remains_____ ☐ Human Skeletal Remains_____ ☐ Other_____

Historic Artifacts Collected (select as many as appropriate; include frequencies):

Architectural: ☐ Bricks_____ ☑ Window Glass 3 ☑ Nails 6 ☑ Other 2

☑ Ceramics 1 ☑ Bottle Glass 2 ☐ Military_____ ☐ Weapons_____ ☐ Personal_____

☑ Food Remains 1 ☑ Metal 1 ☐ Other_____

Provide a brief description of diagnostic artifacts: N/A

31. Curation Location: Environment & Archaeology, LLC

32. Is Site Eligible to NRHP?: ☐ Yes ☐ No ☐ Unevaluated ☑ Unknown

Explain: Large portion of site outside of project area has not been evaluated with subsurface testing.

33. Form Prepared by: Courtney Stoll

34. Affiliation: Environment & Archaeology, LLC

35. Address: 221 Main St, Florence, KY 41042

36. Phone Number: 859-746-1778 **37. E-Mail:** cstoll@environment-archaeology.com

38. Date of Fieldwork: 01-30-13 **39. Date Form Prepared:** 02-08-13

40. References (Please note any bibliographic references):

41. Map (Attach portion of USGS quadrangle map and sketch location with nearest landmarks and other recorded sites; include north arrow, key, and scale)

West Virginia Division of Culture and History
State Historic Preservation Office
1900 Kanawha Blvd., East
Charleston, WV 25305
(304) 558-0220

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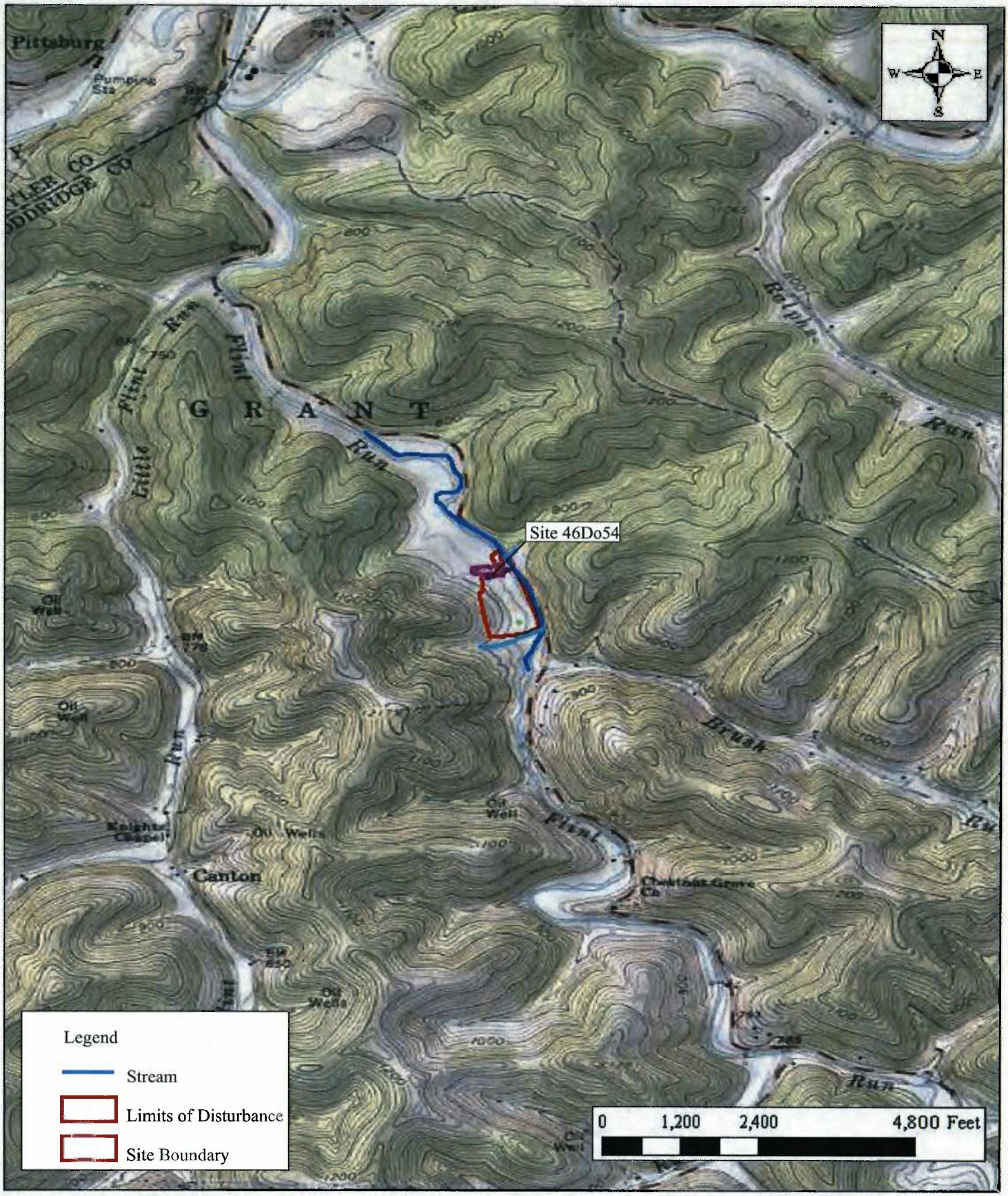


Figure 2	Potesta Gessler Freshwater Impoundment Project Doddridge County, West Virginia	USGS 7.5' Topographic Map Center Point and Smithburg, West Virginia, Quadrangles 1:24,000 *Environment & Archaeology, LLC*

Figure 3	Potesta Gessler Freshwater Impoundment Project Doddridge County, West Virginia	USDA Soil Map Aerial Provided by ESRI Map Services 1:10,000 *Environment & Archaeology, LLC*

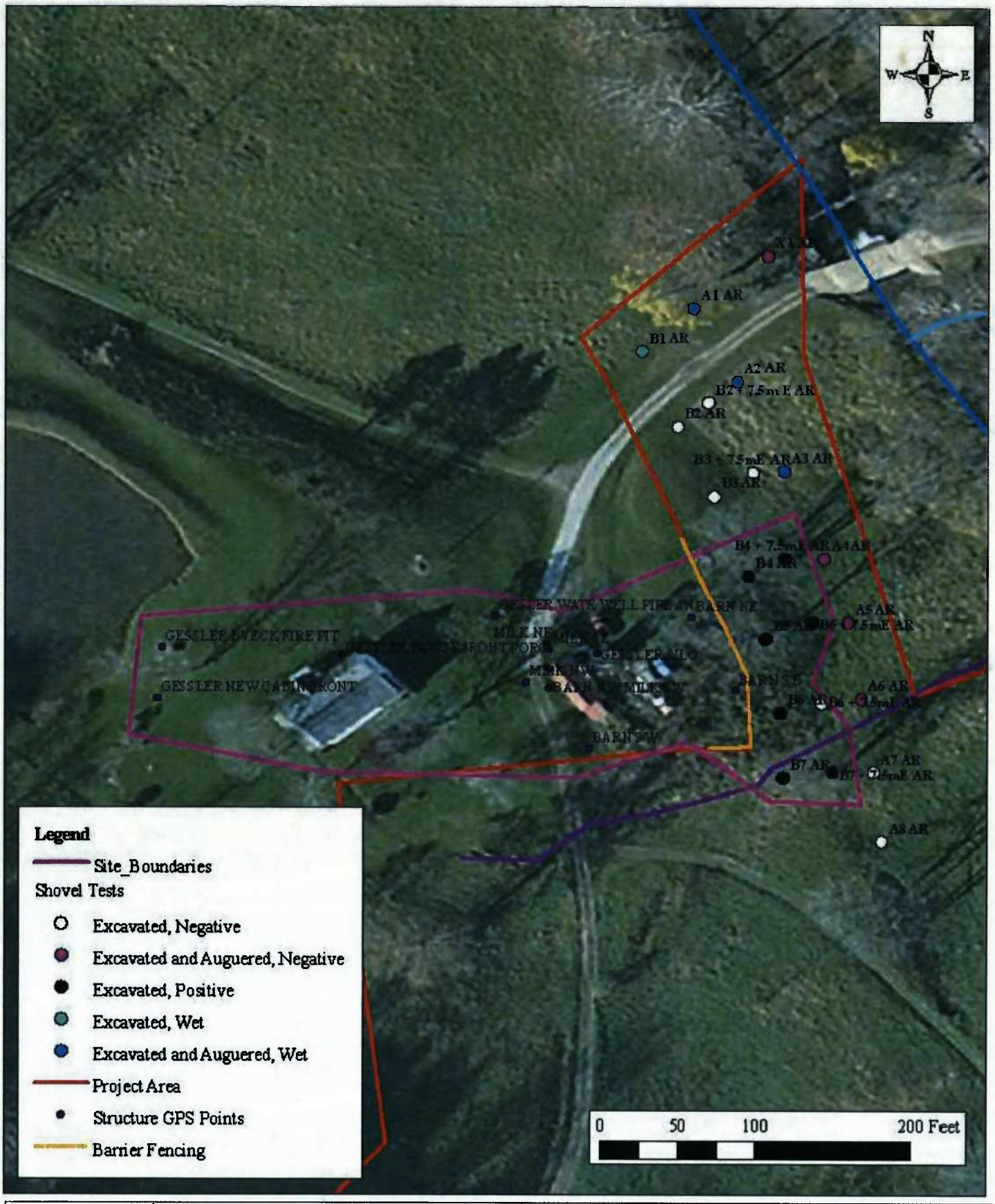


Figure 5	Potesta Gessler Freshwater Impoundment Project Doddridge County, West Virginia	Gessler Historic Site 46Do54 Aerial Provided by ESRI Services *Environment & Archaeology, LLC*

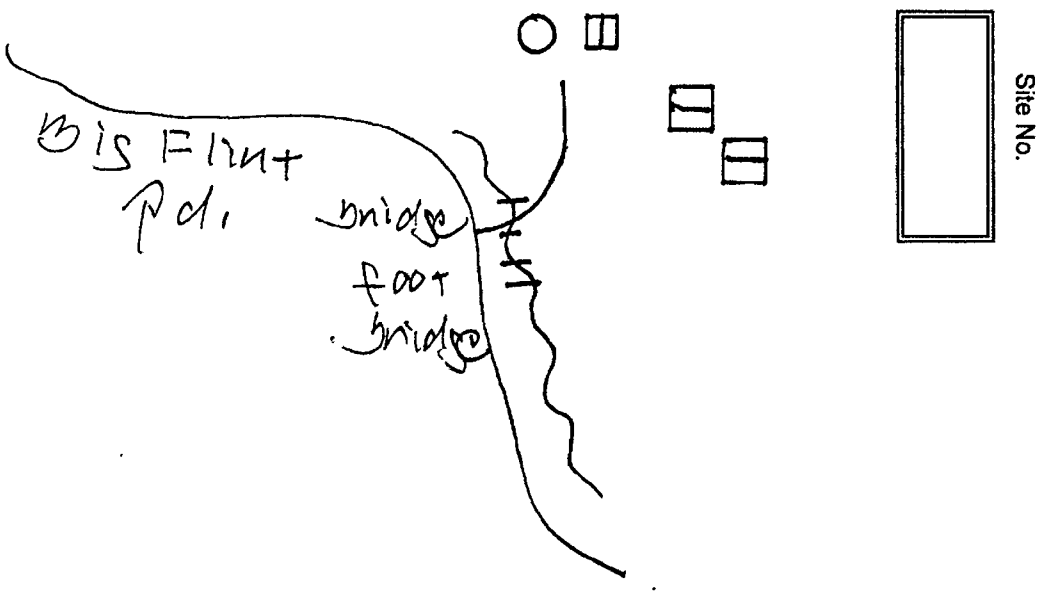
Internal Rating: _____

WEST VIRGINIA HISTORIC PROPERTY INVENTORY FORM

Street Address	Common/Historic Name/Both	Field Survey #	Site # *(SHPO Only)*
9371 Big Flint Road, West Union, WV 26339	◉ ○ ○ Gessler Dairy Farm	FS#2	
Town or Community West Union vicinity	**County** Doddridge	**Negative No.**	**NR Listed Date**
Architect/Builder	**Date of Construction** c. 1890	**Style**	
Exterior Siding/Materials aluminum siding	**Roofing Material** asphalt shingles	**Foundation** concrete block	
Property Use or Function Residence ◉ Commercial ○ Other ○	**UTM#** 17/525679/4355954 NAD 1983		
Survey Organization & Date Environment & Archaeology, LLC January 26, 2013	**Quadrangle Name** Smithburg		
	Part of What Survey/FR# Gessler – Potesta - EQT		

Facing West

Sketch Map of Property
Or Attach Copy of USGS Map



Present Owners	Owners Mailing Address
Shirley Lee Gessler Phone # 304-884-7195	HC Box 81, West Union, WV 26456

Describe Setting

Rural setting. Farmstead in creek valley at base of low, wooded hill. Most of land in pasture with hardwood trees. Country road follows creek of same name.

_____ Acres

☐ Archaeological Artifacts Present

Description of Building or Site (Original and Present) 1 Stories 3 Front Bays

1-story frame dwelling built into hill slope, composed of L-shaped and rectangular blocks back to back. Foundation of concrete block. Walls covered in metal siding with imitation wood grain. Windows replaced with newer metal units 1960s; most openings modified or cut down in size, fixed shutters (cont'd)

(Use Continuation Sheets)

Alterations ◉ Yes ○ No

If yes, describe

Resided; windows replaced & openings altered; side & rear porches rebuilt in treated wood; foundation likely replaced

Additions ◉ Yes ○ No

If yes, describe

1-s addition with low shed roof; porch likely replaced

Describe All Outbuildings

Suspension footbridge: spans creek that parallels roadway. Cables hung from 2 metal H-frames of unequal height. Deck composed of wood planks resting on sleepers.
Timber bridge: built parallel to footbridge, carries asphalt driveway across creek. Waters flows (cont'd)

(Use Continuation Sheets)

Statement of Significance

Small, family-run dairy farm that appears to be indicated on 1961 Smithburg topo map (house & barn). Barn dismantled, silo & milk shed attest to historic function. Main house is modest vernacular dwelling that has been much altered but retains some noteworthy features including porch (cont'd)

(Use Continuation Sheets)

Bibliographical References

1961 USGS topo map of Smithburg Quad (www.usgs.gov)

(Use Continuation Sheets)

Form Prepared By: **Date:** January 26, 2013

Name/Organization: Margo Warminski, Environment & Archaeology, LLC
Address: 221 Main Street
Florence, KY 41042

Phone #: 859-746-1778

This program receives federal funds from the National Park Service. Regulations of the U. S. Department of the Interior prohibit unlawful discrimination in department Federally Assisted Programs on the basis of race, color, national origin, age or handicap. Any person who believes he or she has been discriminated against in any program, activity, or facility operated by a recipient of Federal Assistance should write to: Director, Equal Opportunity Program, U.S. Department of the Interior, National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127.

WEST VIRGINIA HISTORIC PROPERTY FORM
CONTINUATION SHEET

NAME Gessler Dairy Farm **SITE#**

Description continued:

added. Some original multi-pane windows stored in basement. Encircling wood porch with turned posts and decorative braces; modified with new wood railing. Lattice infill under porch. Part of porch was enclosed to create mudroom. Original, double-leaf, glazed wood doors with sunburst carvings at mudroom. 1-story rear addition with low-pitched shed roof. Treated wood porches added at side and rear.

Interior of house retains central hall, board walls and ceilings, wood floors, heavily milled woodwork with corner "bullseyes," 4-panel doors, transoms, small wood mantelpiece with paneled chimney breast, built-in cabinets with glazed doors. Previous owner dug out earth under north half of basement to add cinder block supports and sill. Basement includes "clean room" with tongue-and groove wood ceiling, whitewashed surfaces. Well or cistern in basement. Stone-lined springhouse room built of blocks of quarried sandstone, with water trough.

Outbuildings continued:

11 metal pipes.
Water box and well pipe at driveway.
Flagstone and brick walkway approaches house.
Modern log cabin built 2012-2013: 1-s, concrete block foundation, gabled front porch centered on façade, side-gabled metal roof.
Circular firepit in front of cabin built of reused stone and brick.
Abandoned gas well.
Milking parlor: 1-s, rectangular footprint, concrete block, front-gabled roof covered in raised seam metal. Stone slabs and barn pump in front.
Next to shed is foundation of former dairy barn. Earthen barn ramp remains in place.
Silo: cylindrical, concrete block, roofless. Built on foundation of older, larger silo.
Cut stone barn foundation in woods

Evaluation

The Gessler house is a 19th-century rural vernacular frame residence that has seen one or more additions. Its form has been altered and partially disguised by the rear addition and the partial enclosure of the porch, which have disturbed its integrity of design. Its original wall treatment has been covered with synthetic siding and much of its wood trim has been covered Evaluation: The Gessler house is a 19th-century rural vernacular frame residence that has seen one or more additions. Its form has been altered and partially disguised (continued)

WEST VIRGINIA HISTORIC PROPERTY FORM
CONTINUATION SHEET

NAME Gessler Dairy Farm **SITE#**

Evaluation continued

by the rear addition and the partial enclosure of the porch, which have disturbed its integrity of design. Its original wall treatment has been covered with synthetic siding and much of its wood trim has been covered over or removed, affecting its integrity of materials and workmanship. The interior of the house includes some notable features including woodwork, doors, paneling, mantelpiece, floors and a stone springhouse, and the property retains integrity of location because it remains on its original site. However, its integrity of feeling and association has been lessened by the successive exterior alterations. Therefore it does not appear to meet National Register Criterion C.

The following support resources derive their importance as part of a larger entity—the farm—and lack distinction in their own right:

Milking parlor: not eligible. Represents a common mid-20th-c type, lacks individual distinction, altered by rear frame addition.
Silo: not eligible. Represents a common type often found on dairy and stock farms of the mid-20th-c century.
Swinging suspension footbridge: common resource in rural Appalachian regions including Kentucky and West Virginia.
Minor resources: water box and well pipe; abandoned gas well; archaeological resources (barn & silo foundation remnants): derive their significance as part of the farmstead and lack individual distinction.
Modern cabin: noncontributing, prominent site beside original farm residence disturbs farmstead's integrity of setting.
Modern timber bridge: noncontributing.

With the loss of the dairy barn, a key component of the agricultural economy of the farm is missing, and the property has lost much of its ability to convey its significance. In summary, the farm does not appear to meet the criteria for listing in the National Register under Criterion A in the area of agriculture.

WEST VIRGINIA HISTORIC PROPERTY FORM
CONTINUATION SHEET

NAME Gessler Dairy Farm **SITE#** _____

Facing East

Footbridge to Gessler
Property Facing West

Silo and Milking Structure
Facing South

Cut Stone Trough
in Basement

Interior of Gessler House

ATTACHMENT C

WVSHPO EQT GESSLER CORRESPONDENCE

WEST VIRGINIA
Division of Culture and History

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

December 13, 2012

Ms. Beth Burdette
Senior Scientist
Potesta
7012 MacCorkle Avenue, SE
Charleston, WV 25304

RE: Gessler Freshwater Impoundment
FR# 13-135-DO

Dear Ms. Burdette:

We have reviewed 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 information submitted, EQT Production Company proposes to construct a freshwater impoundment and an access road on landforms located southeast of Little Pittsburg, Doddridge County, WV. It is our understanding that a permit may be needed from the US Army Corps of Engineers (USACE) if stream impacts are proposed.

Archaeological Resources:
A search of our records indicates that no previously documented archaeological resources are located within the proposed project area. However, the proposed project area encompasses landforms that have the potential to contain archaeological resources. As a result, we request that a Phase I archaeological be conducted prior to the initiation of any ground disturbing activities associated with the project. If a permit is needed from the USACE, that agency will define the Area of Potential Effect and direct you in how to proceed. We will provide further comment upon receipt of the resulting technical report.

Architectural Resources:
We cannot complete our review with the information provided. Submitted photographs show a house and silo within the project area. These buildings may be part of a larger agricultural complex. At this time, we request that a Historic Property Inventory (HPI) form be submitted to our office. This HPI must be completed by an individual meeting the Professional Qualification Standards for Architectural Historian as outlined by the National Park Service. Please see http://www.nps.gov/history/local-law/arch_stnds_9.htm for further guidance on these standards.

RECEIVED
Potesta & Associates, Inc.

The evaluation must include a determination of eligibility for all buildings associated with the farmstead. Eligibility should be assessed individually and as part of a potential farmstead. If the building or farmstead is determined eligible for inclusion in the National Register, then an assessment of effect would have to occur. We will provide additional comments upon receipt of the requested information.

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, or Shirley Stewart Burns, Structural Historian, at (304) 558-0240.*

Sincerely,

for Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/LAL/SSB

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EEO/AA Employer

November 5, 2013

Ms. Megan Landfried
Environmental Coordinator
EQT Gathering, LLC
115 Professional Place
Bridgeport, WV 26330

RE: MOPA-S001 & MOPA-S006 Pipeline Project
FR# 14-40-DO

Dear Ms. Landfried:

We have reviewed 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 information submitted, EQT Gathering, LLC proposes to construct a natural gas gathering line and associated access roads on landforms located in Grant District, Doddridge County, WV. As indicated in the submitted materials, our records indicate that one archaeological site is located within the proposed project area. The site was discovered during a survey conducted for another project. Although the surveyed portion of the site was determined not eligible for inclusion in the National Register of Historic Places, the site's boundaries are thought to extend beyond the previous survey area. As well, its presence indicates that other unknown sites may be contained within the currently proposed project area. As a result, we request that a Phase I archaeological survey be conducted in the proposed project area prior to initiating ground disturbing activities. Per our guidelines, the survey may need to include deep testing if alluvial soils with the potential for deeply buried archaeological deposits are located within the proposed project area. We will provide further comment upon receipt of the resulting technical report.

We appreciate the opportunity to be of service. *If you have questions regarding our comments or the Section 106 Process, please contact Lora A. Lamarre-DeMott, Senior Archaeologist, at (304) 558-0240.*

Sincerely,

for Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/LLD

cc: Jason D. Moser, Cultural Resource Analysts

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 Upon Oath That the Accompanying Legal Notice Entitled:

Floodplain Permit Application #13-098

was published in said paper for 1

successive weeks beginning with the issue of December 10th 2013 and

ending with the issue of

2013 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

$

and each publication thereafter

$ 21.74 TOTAL

EDITOR

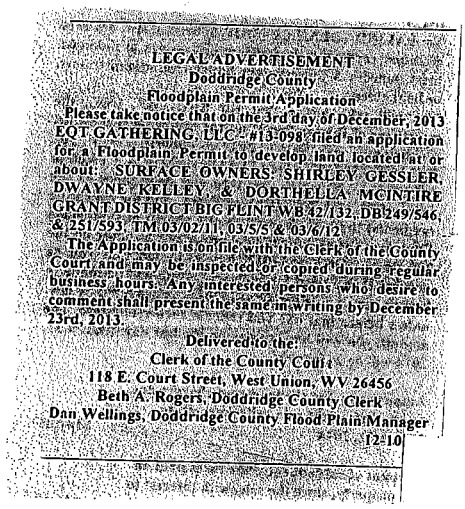
SWORN TO AND SUBSCRIBED

BEFORE ME THIS THE DAY

OF 2013

NOTARY PUBLIC

Laura J Adams



LEGAL ADVERTISEMENT
Doddridge County
Floodplain Permit Application

Please take notice that on the 3rd day of December, 2013 EQT GATHERING, LLC "#13-098" filed an application for a Floodplain Permit to develop land located at or about SURFACE OWNERS: SHIRLEY GESSLER, DWAYNE KELLEY & DORTHELLA MCINTIRE GRANT DISTRICT BIG FLINT WB 42/132, DB 249/546 & 251/593 TM 03/02/11, 03/5/5 & 03/6/12

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 December 23rd, 2013

Delivered to the:
Clerk of the County Court
118 E. Court Street, West Union, WV 26456
Beth A. Rogers, Doddridge County Clerk
Dan Wellings, Doddridge County Flood Plain Manager
12-10

OFFICIAL SEAL
Notary Public, State Of West Virginia
LAURA J ADAMS
212 Edmond Street
West Union, WV 26456
My Commission Expires June 14, 2023