



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Earl Ray Tomblin , Governor
Randy C. Huffman , Cabinet Secretary
www.dep.wv.gov

Tuesday, January 03, 2017
WELL WORK PERMIT
Vertical / Plugging

EQT PRODUCTION COMPANY
120 PROFESSIONAL PLACE
BUILDING II
BRIDGEPORT, WV 26330

Re: Permit approval for 7767
47-007-00112-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin
Chief

Operator's Well Number: 7767
Farm Name: FOLKS, ERASTUS
U.S. WELL NUMBER: 47-007-00112-00-00
Vertical / Plugging
Date Issued: 1/3/2017

Promoting a healthy environment.

01/06/2017

PERMIT CONDITIONS

COALBED METHANE WELLS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. If this well is associated with a mine through by a coal operator, then the plugging methodology (work order) must have Mine Safety and Health Administration (MSHA) approval.

700112 P

Form WW-4 (B)
Permit Copy
Rev 2/01)

Date: November 14, 2016
Operator's Well
Well No. 607767 (E. Fulks #7767)
API Well No.: 47 007 - 00112

**STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS**

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

Well Type: Oil Gas Liquid Injection Waste Disposal:
If Gas, Production Or Underground storage Deep Shallow

Elevation: 1030 ft. Watershed: Laurel Fork of Tate Cr.
Location: Birch County: Braxton Quadrangle: Strange Creek 7.5'
District:

Well Operator EQT Production Company
Address: 120 Professional Place
Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

Oil & Gas Danny Mullins
Name: 220 Jack Acres Road
Address: Buckhannon, WV 26201

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

Work Order: The work order for the manner of plugging this well is as follows:
See Attachment for details and procedures.

OFFICE USE ONLY

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector

Danny Mullins

Date 12-5-16

01/06/2017

PLUGGING PROGNOSIS

Fulks, Erastus #1 (607767)

Braxton, County, West Virginia

API # 47-007-00112

Gassaway Quad

BY: Craig Duckworth

DATE: 2/28/13

CURRENT STATUS:

8 1/4" csg @ 470'

6 5/8" csg @ 1764'

TD @ 1764'

Fresh Water @ 40'

Salt Water @ none reported

Salt Sand @ 1402'

Coal @ 423' & 463'

Gas shows @ Blue Monday @ 1757' Oil Shows @ Maxon @ 1570'-1573' & 1596'-1604'

Stimulation: none reported

Elevation @ 1026'

1. Notify State Inspector, Danny Mullins 304-932-6844, and 24 hrs prior to commencing operations.
2. Attempt to pull 6 5/8" @ 1550'. Free point 6 5/8" if unable to pull. Shoot off and start plugging
3. TIH w/ tbg @ 1764'; Set 244' CIA Cement Plug @ 1764' to 1520' (Gas & Oil Shows)
4. Set a 100' CIA Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas Shows below 6 5/8". Do not omit any plugs.
5. TOOH w/ tbg @ 1520'; gel hole @ 1520' to 1402'.
6. TOOH w/ tbg @ 1402'; Set 100' CIA Cement Plug @ 1402' to 1302' (Salt Sand @ 1402')
7. TOOH w/ tbg @ 1302'; gel hole @ 1302' to 513'
8. TOOH w/ tbg @ 513'; Set 140' CIA Cement Plug @ 513' to 373' (Coal 463' & 423')
9. Set a 140' CIA Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas Shows. Do not omit any plugs.
10. TOOH w/ tbg @ 373'; gel hole @ 373' to 200'
11. TOOH w/ tbg @ 200'; Set 200' CIA Cement Plug @ 200' to surface
12. Top off as needed
13. Set Monument to WV-DEP Specifications
14. Reclaim Location & Road to WV-DEP Specifications.

WELL RECORD

Permit No. **BRAX-112**

Oil or Gas Well **GAS**
(Kind)

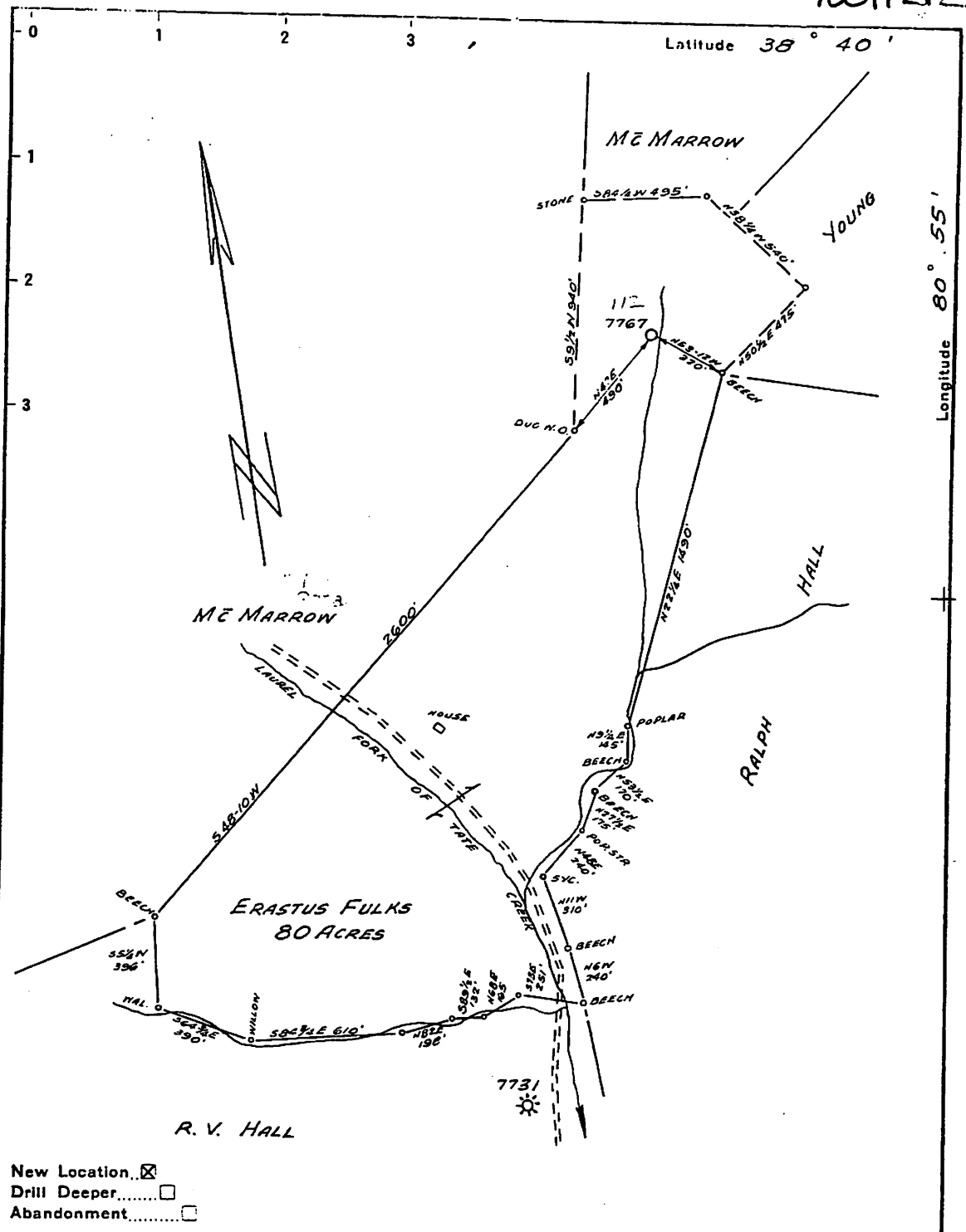
Pittsburgh & West Va Gas Company.
 Company
 Address **Clarksburg, West Va.,**
 Farm **Erastus Fulks** Acres **80**
 Location (waters) **Gasseway S/W. 2-1**
 Well No. **7767** Elev **1026.5**
 District **Birch** County **Braxton**
 The surface of tract is owned in fee by **W. S. Starcher**
 Address **Duck, West Va.,**
 Mineral rights are owned by **Erastus Fulks**
 Address **Duck, West Va.,**
 Drilling commenced **September 14th, 1940.**
 Drilling completed **October 10th, 1940.**
 Date shot _____ Depth of shot _____
 Open Flow _____ 10ths Water in _____ Inch
 _____ 10ths Merc in **6-5/8"** Inch
 Volume **6,500,000** Cu. Ft.
 Rock Pressure **542#** lbs **24** hrs.
 Oil _____ bbls 1st 24 hrs
 Fresh water **40** feet
 Salt water _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packler
16			
13			Size of
10	470'	470'	Depth set
8 1/2	1764'	1764'	Perf. top
6 1/2			Perf. bottom
5 3/16			Perf. top
3			Perf. bottom
2			
Linez Used			

CASING CEMENTED _____ SIZE _____ No Ft _____ I
 COAL WAS ENCOUNTERED AT **423** FEET **12** INCH
463 FEET **12** INCHES FEET INCH
 FEET INCHES FEET INCH

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Red Rock	Red	Soft	0	25			
Slate	White	"	25	75	Water	40'	
Sand	"	Hard	75	90			
Slate	"	Soft	90	122			
Freeport Sand	"	Hard	122	150			
Lime	"	"	150	225			
Sand	Dark	"	225	255			
Lime	White	"	255	307			
Slate	"	Soft	307	342			
East Lynn	"	Hard	342	423			
Coal	Black	Soft	423	424			
Slate	"	"	424	439			
Sand	White	Hard	439	463			
Coal	Black	Soft	463	464			
Lime	White	Hard	464	470			
Slate	Black	Soft	470	521			
Lime	White	Hard	521	590			
Homewood Sand	"	"	590	725			
Slate	Black	Soft	725	860			
Sand	White	Hard	860	887			
Slate	Black	Soft	887	975			
Gas Sand	White	Hard	975	1024			
Slate	Black	Soft	1024	1036			
Lime	"	Hard	1036	1081			
Slate	"	Soft	1081	1270			
Rosedale Gas Sd.	Dark	Hard	1270	1325			
Slate	Light	Soft	1325	1402			
Rosedale Salt Sd.	Wh.	Hard	1402	1544			
Slate	Dark	Soft	1544	1565			
Maxon Sand	"	Hard	1565	1616	Sh. Oil	1570-73'	
Sand	"	Open	1616	1633	Sh. Oil	1596-1604'	
Sand	White	Hard	1633	1655			
Lime	Dark	Broken	1655	1665			
Red Rock	Red	Soft	1665	1670			
Slate	Black	"	1670	1702			
Lime	"	Hard	1702	1735			
Slate	"	Soft	1735	1754			
Blue Monday	White	Hard	1754	1764	Gas	1757-1763	7/10 Mer. I
Total Depth				1764			

700112A



New Location
 Drill Deeper
 Abandonment

Company PITTSBURGH & W.VA. GAS CO.
 Address CLARKSBURG W.VA.
 Farm ERASTUS FULKS
 Tract _____ Acres 80 Lease No. 22356
 Well (Farm) No. ONE Serial No. 7767
 Elevation (Spirit Level) 1026.5 V.A.
 Quadrangle GASSAWAY, S.W., 2-1.
 County BRAXTON District BIRCH
 Engineer Paul W. Cunningham
 Engineer's Registration No. _____
 File No. V-77, P-89 Drawing No. _____
 Date 8-21-40 Scale. 1" = 500'

RECEIVED
 STATE OF VIRGINIA
 DEPARTMENT OF MINES
 Office of Oil and Gas
 OIL AND GAS DIVISION
 CHARLESTON

NOV 21 2016
 WV Department of
 Environmental Protection

WELL LOCATION MAP
 FILE NO. BRAX-112

+ Denotes location of United States
 Topographic Maps, scale 1" = 62,500'
 latitude and longitude lines being represented
 by border lines as shown.

- Denotes one inch spaces on border line
 of original tracing.

- 91 -

01/06/2017

700112P

WW-4-A
Revised 6/07

1) Date: November 14, 2016
2) Operator's Well Number
607767 (E. Fulks #7767)
3) API Well No.: 47 007 - 00112
State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL**

4) Surface Owner(s) to be served:
(a) Name Wolfpen Knob Development
Address c/o Vaughn Miller
100 Tygart Drive
Grafton, WV 26354
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Danny Mullins
Address 220 Jack Acres Road
Buckhannon, WV 26201
Telephone (304) 932-6844

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name Wolfpen Knob Development
c/o Vaughn Miller
Address 100 Tygart Drive
Grafton, WV 26354
Name _____
Address _____
(c) Coal Lessee with Declaration
Name Arch Coal
Address c/o Vaughn Miller
100 Tygart Drive
Grafton, WV 26354

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 - (2) The plat (surveyor's map) showing the well location on Form WW-6.
- The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Division of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator: EQT Production Company
By: Victoria J. Roark
Its: Permitting Supervisor
Address: PO Box 280
Bridgeport, WV 26330
Telephone: (304) 848-0076

RECEIVED
Office of Oil and Gas
NOV 9 2 2016
WV Department of Environmental Protection

Subscribed and sworn before me this 15th day of November, 2016
Misty S. Christie Notary Public
My Commission Expires: 2/20/18

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



01/06/2017

700112P

WW-9
Revised 5/16

Page ____ of ____
2) Operator's Well Number
607767 (E. Fulks #7767)
3) API Well No.: 47 007 - 00112

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL & GAS
FLUIDS / CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name: EQT PRODUCTION COMPANY OP CODE: _____

Watershed (HUC 10): Laurel Fork of Tate Cr. Quadrangle: Strange Creek 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ___ No X

Will a pit be used? Yes X No ___

If so, please describe anticipated pit waste: _____ **Formation Fluids** _____

Will a synthetic liner be used in the pit? Yes X No ___ Is so, what ml.? 10 ml 20ml,

- Proposed Disposal Method for Treated Pit Wastes:
- _____ Land Application (if selected provide a completed form WW-9-GPP)
 - _____ Underground Injection (UIC Permit Number _____)
 - X _____ Reuse (at API Number -- Various _____)
 - X _____ Off Site Disposal Permit (Supply form WW-9 for disposal location. See attachment)
 - _____ Other: (Explain _____)

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well? (vertical and horizontal)? Air, freshwater, oil based, etc. _____

If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, remove offsite, etc. _____

If left in pit and plan to solidify what medium will be used? (cement, Lime, sawdust) _____

Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of the Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for

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NOV 21 2016

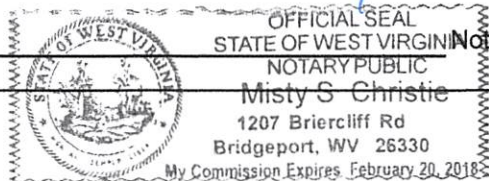
Company Official Signature _____

Company Official (Typed Name) Victoria J. Roark

Company Official Title Permitting Supervisor - WV

Subscribed and sworn before me this 15th day of November, 2016

My Commission Expires _____
Misty S. Christie

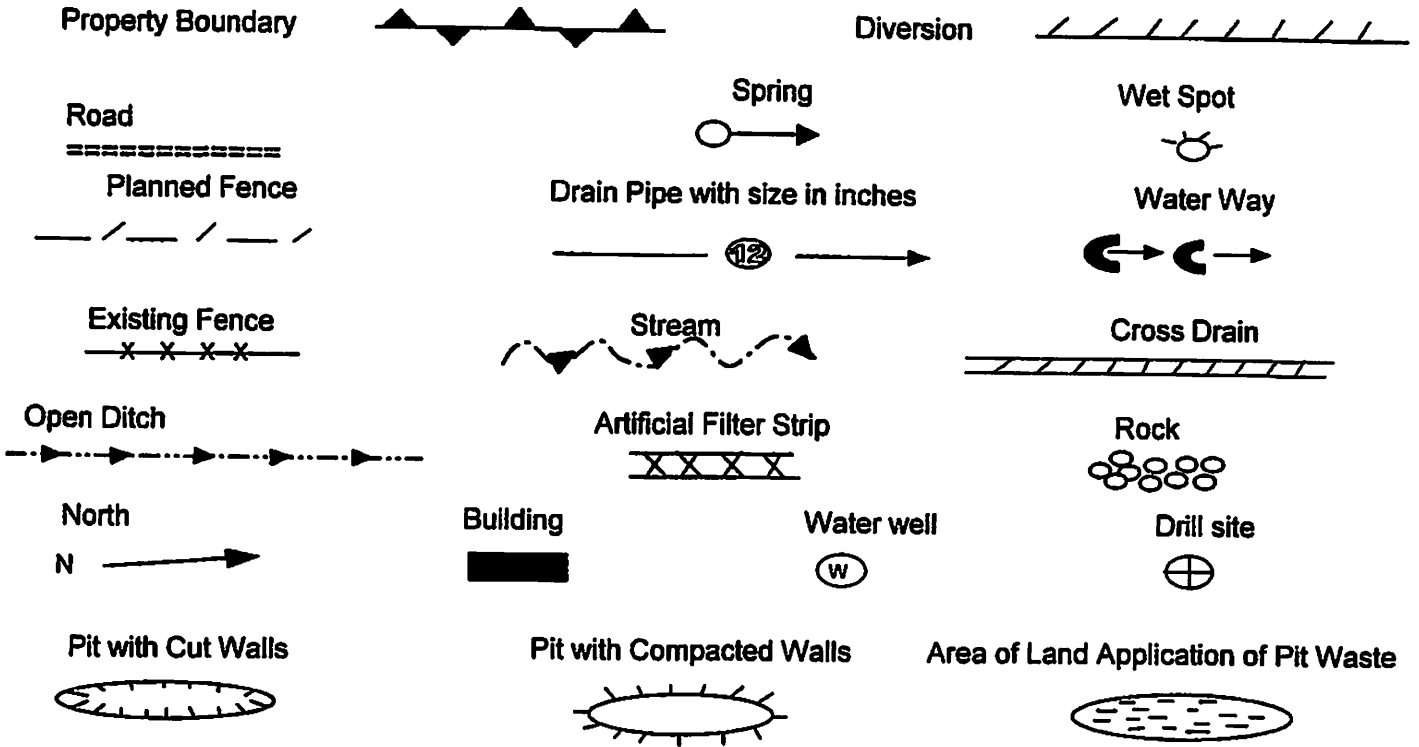


WV Department of Environmental Protection

2/20/18

01/06/2017

LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

SEED MIXTURES

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

ATTACH:

Drawing(s) of road, location, pit and proposed area for land application.
Photocopies section of involved 7.5' topographic sheet.

Plan approved by: _____

Comments: _____

Title: _____ Date: _____
Field Reviewed? Yes ✓ No

EQT Production Water plan
Offsite disposals

700112P

Waste Management - Meadowfill Landfill

Rt. 2, Box 68 Dawson Drive
Bridgeport, WV 26330
304-326-6027
Permit #SWF-1032-98
Approval #100785WV

Waste Management - Northwestern Landfill

512 E. Dry Road
Parkersburg, WV 26104
304-428-0602
Permit #SWF-1025 WV-0109400
Approval #100833WV

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WV Department of
Environmental Protection

01/06/2017

Topo Quad: Strange Creek 7.5' Scale: 1" = 500'

County: Braxton Date: October 28, 2016

District: Birch Project No: 40-02-00-07

Highway

47-007-00112 WV 607767 (E. Fulks #7767)

Pit Location Map



47-007-00112
WV 607767

Existing Well
Access Road

Laurel

Fork

LEGEND

PIT-CUT WALLS



PIT-COMPACTED WALLS



AREA OF LAND APPLICATION
OF PIT WASTE



NAD 27, South Zone

N:584270.08

E:2023424.63

RECEIVED
Office of Oil and Gas
WV Dept of Environmental Protection

LAT:38.604619

LONG:-80.0167858

ELEV:1029.93



SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

1-800-482-8606
237 Birch River Road
Birch River, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

01/06/2017

700112P

Topo Quad: Strange Creek 7.5' Scale: 1" = 200'

County: Braxton Date: October 28, 2016

District: Birch Project No: 40-02-00-07

47-007-00112 WV 607767 (E. Fulks #7767)

Topo

Pit Location Map

1100

47-007-00112
WV 607767

Existing Well
Access Road



LEGEND

PIT-CUT WALLS



PIT-COMPACTED WALLS



AREA OF LAND APPLICATION
OF PIT WASTE



NAD 27, South Zone

N:584270.08

E:2023424.63

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Office of Oil and Gas
WGS 84

LAT: 38.604619

LONG: -80.917858

ELEV: 1029.93

Nov 2, 2016
WV Department of Environmental Protection



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Birch River, WV 26610
PH: (304) 649-8606
FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

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70012P

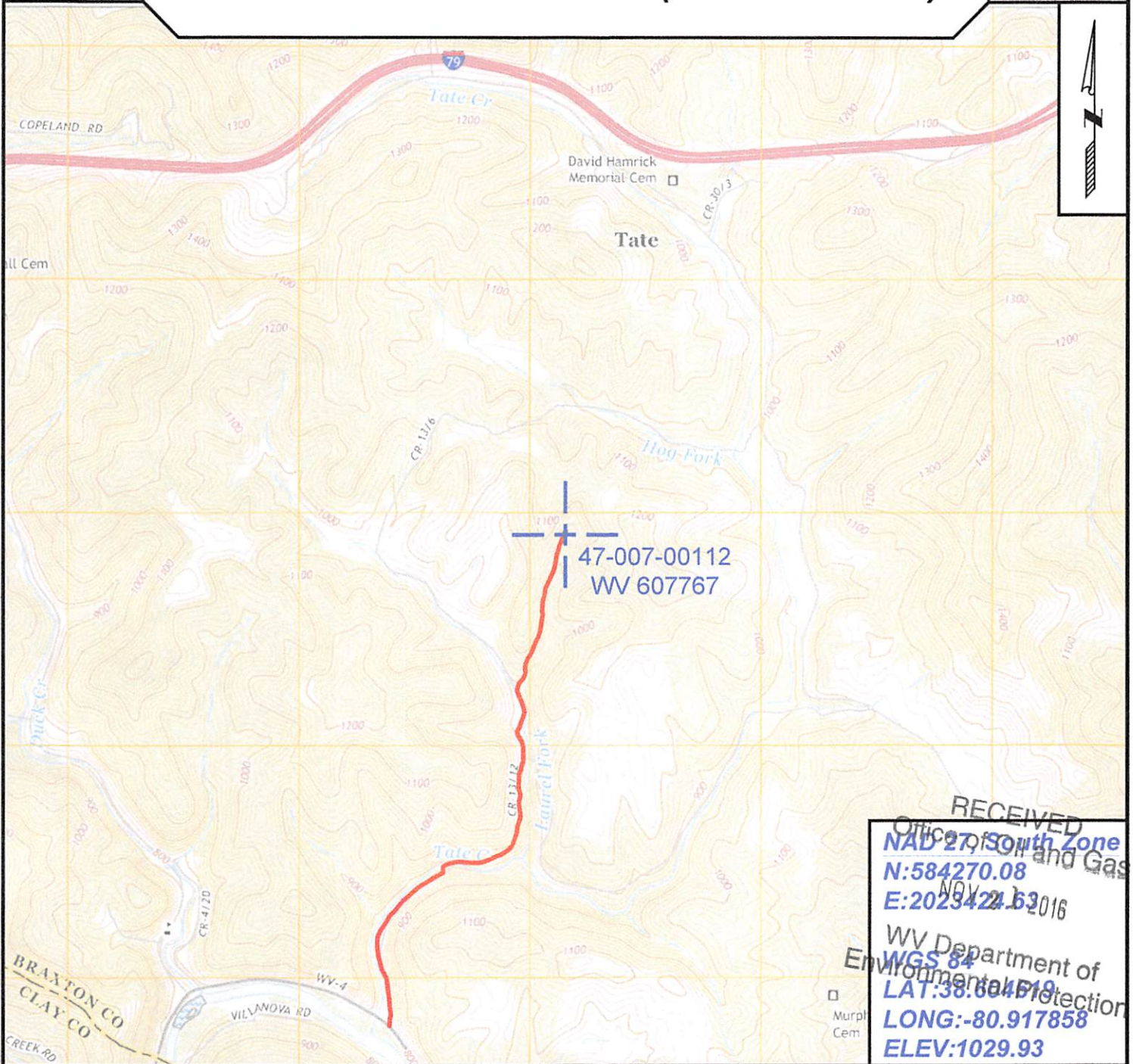
Topo Quad: Strange Creek 7.5' Scale: 1" = 2000'

County: Braxton Date: October 28, 2016

District: Birch Project No: 40-02-00-07

47-007-00112 WV 607767 (E. Fulks #7767)

Topo



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 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:

EQT Production Company

P.O. Box 280
 Bridgeport, WV 26330

01/06/2017



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
LEASE NAME AND WELL No. E. Fulks #7767 - WV 607767 - API No. 47-007-00112

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 607767.

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NOV 21 2016
WV Department of
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BIRCH RIVER OFFICE
237 Birch River Road
Birch River, WV 26610
phone: 304-649-8606
fax: 304-649-8608

BRIDGEPORT OFFICE
172 Thompson Drive
Bridgeport, WV 26330
phone: 304-848-5035
fax: 304-848-5037

ALUM CREEK OFFICE
P.O. Box 108 • 1413 Childress Rd
Alum Creek, WV 25003
phone: 304-756-2949
fax: 304-756-2948

MARTINSBURG OFFICE
25 Lights Addition Drive
Martinsburg, WV 25404
phone: 304-901-2162
fax: 304-901-2182

700112P

Topo Quad: Strange Creek 7.5' Scale: 1" = 2000'

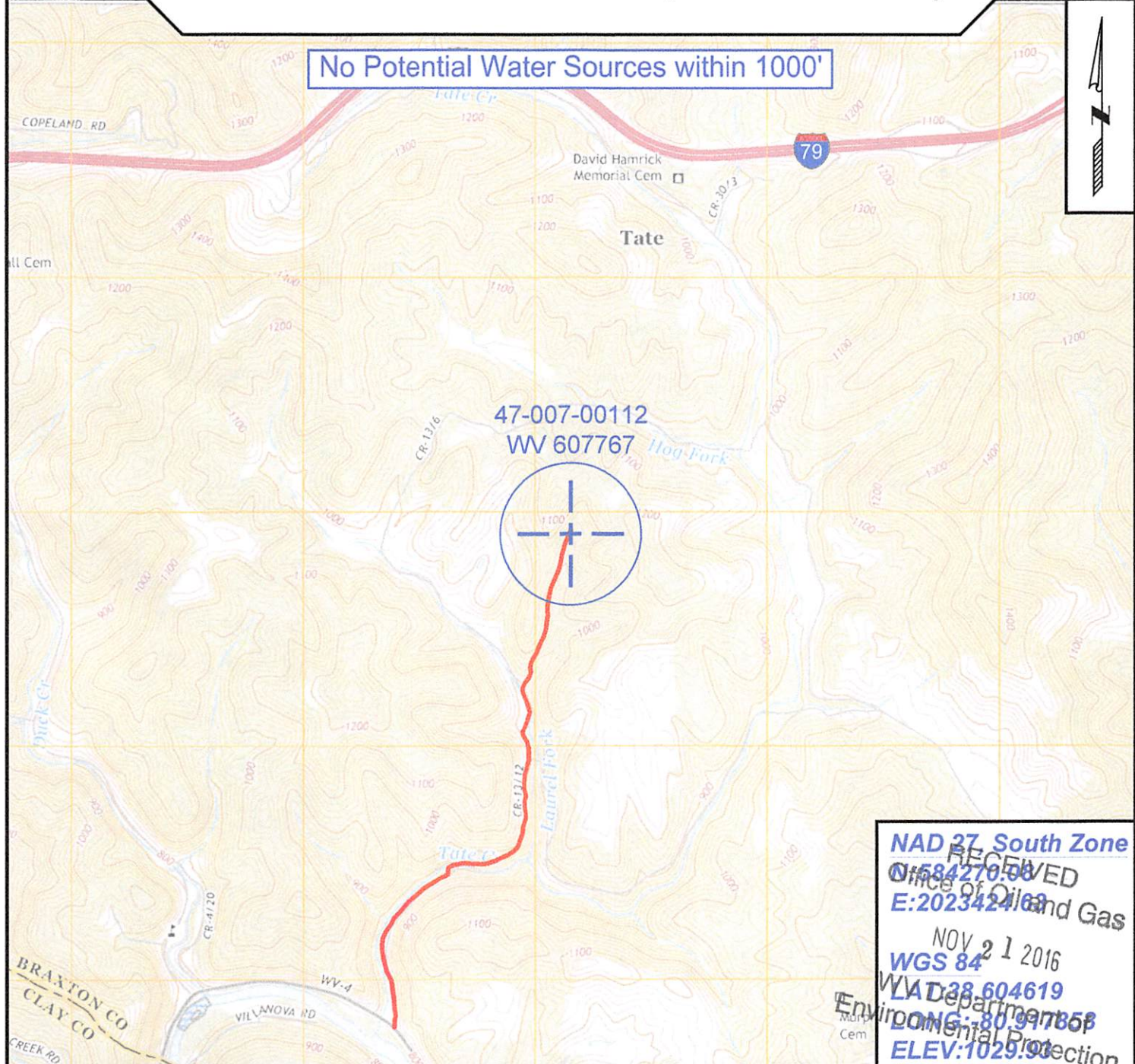
County: Braxton Date: October 28, 2016

District: Birch Project No: 40-02-00-07

Water

47-007-00112 WV 607767 (E. Fulks #7767)

No Potential Water Sources within 1000'



47-007-00112
WV 607767

NAD 27, South Zone
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 Office of Oil and Gas
 E:20234246
 NOV 21 2016
 WGS 84
 WV Department of Environmental Protection
 ELEV:1029.90



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