



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, June 22, 2018

WELL WORK PLUGGING PERMIT
Vertical Plugging

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for 1603
47-021-00661-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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: 1603
Farm Name: FURR, FLOYD
U.S. WELL NUMBER: 47-021-00661-00-00
Vertical Plugging
Date Issued: 6/22/2018

PERMIT CONDITIONS

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.

1) Date May 30, 2018
2) Operator's
Well No. 656306 Furr #1603
3) API Well No. 47-421 - 00661

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil / Gas / Liquid Injection / Waste disposal
Oil / Gas / Liquid Injection / Waste disposal

Well No. 795 Cedar Creek
District DeKalb County Gilmer Quadrangle Tanner

6) Well Operator EQT Production Company
Address 2400 Ansys Drive- Suite 200
Canonsburg PA 15317

7) Designated Agent Jason Ranson
Address 120 Professional Place
Bridgeport WV 26330

8) Oil and Gas Inspector to be notified
Name Danny Mullins
Address 220 Jack Acres Rd
Buckhannon WV 26201

9) Plugging Contractor
Name HydroCarbon Well Service
Address PO Box 995
Buckhannon WV 26201

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

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JUN 21 2018
WV Department of
Environmental Protection

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

Work order approved by inspector  Date 6-13-18

PLUGGING PROGNOS

656306
 Furr #1603
 API# 47-021-00661
 District, DeKalb
 Gilmer County, WV

BY: R Green
 DATE: 12/11/17

CURRENT STATUS:

TD @ 1486'
Elevation @ 771'

10" casing @ 166'
 8 1/4" casing @ 954' (Set on packer @ 954')
 2" tubing @ 1486"

Fresh Water @ 120' & 430'
Saltwater @ 741'
Oil Show @ 1458'
Gas shows @ 970', 1188', & 1450'
 Coal @ None Reported
 Shot with 30 qts. 1458' to 1468'

175

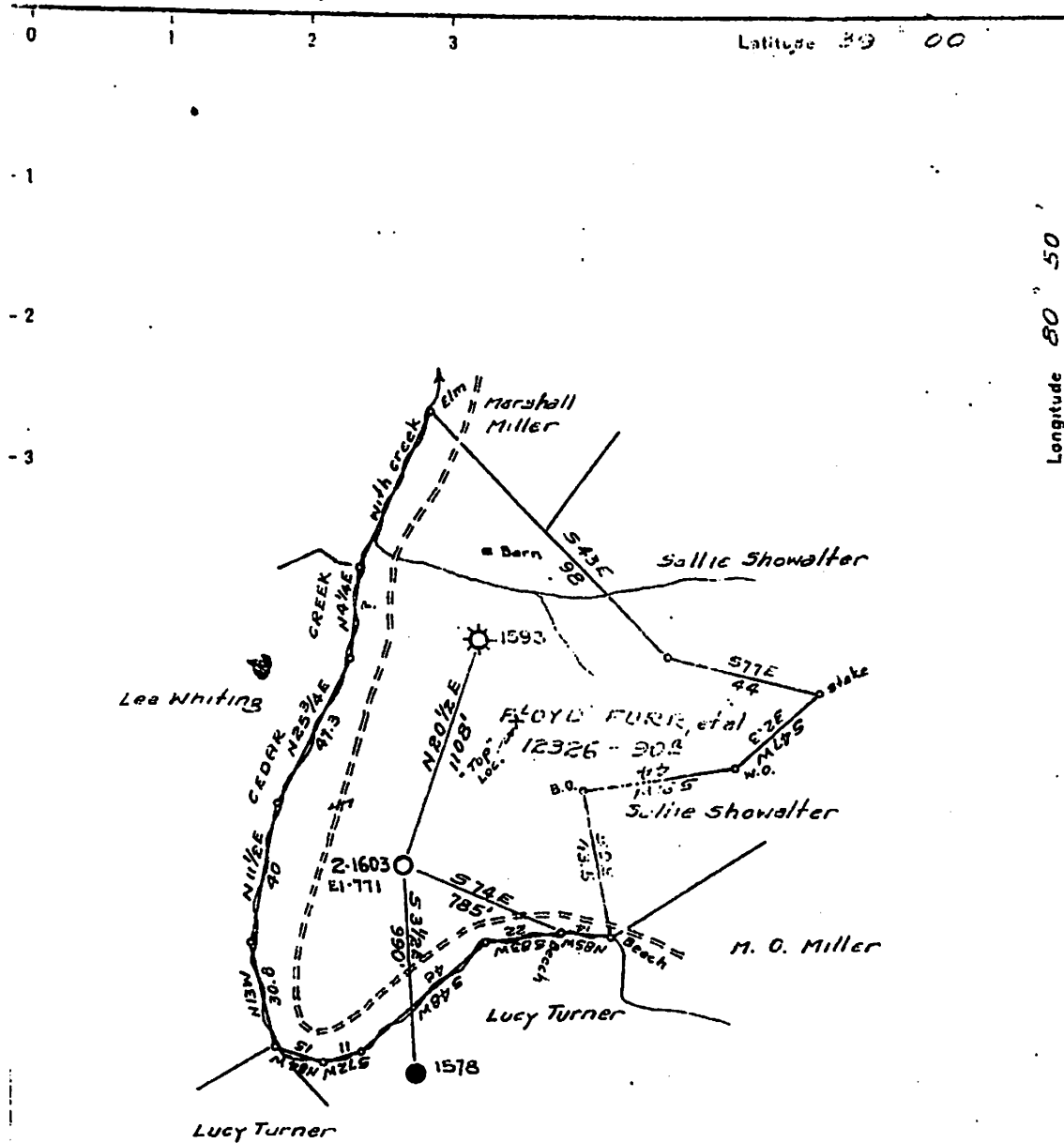
1. Notify inspector, Danny Mullins @304-932-6844, 24 hrs. prior to commencing operations.
2. TOOH 2" tubing, TIH and check TD @ or below 1475'.
3. TIH to 1475' and spot 30 bbl. of 6% gelled water, followed by a 300' C1A cement plug, 1475' to 1175', (Oil @ 1450').WOC 8 hrs. Tag TOC, add additional C1A cement if necessary.
4. TOOH to 1050 set a 350' C1A cement plug 1050' to 700'. (Elevation & 8 1/4" casing seat). **Gas Shows**
5. Free point 8 1/4" casing, cut casing @ free point. TOOH 8 1/4" casing.
6. Set a 100' C1A cement plug 50' in/out of casing cut. Perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
7. TOOH to 300' set a 150' C1A cement plug 300' to 150'. (10" casing seat).
8. Free point 10" casing, cut casing @ free point. TOOH 10" casing.
9. Set a 100' C1A cement plug 50' in casing cut to surface. Perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
10. *** Note if unable to cut and pull 10" casing. TIH and perforate 10" casing with 4 holes each @ 150', 100', & 75'. TIH and set a 150' C1A cement plug 150' to surface.**
11. Erect monument with API#, date plugged, & company name.
12. Reclaim location and road to WV-DEP specifications.

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06/22/2018



New Location... ●
 Drill Deeper...
 Abandonment... ..

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 Environmental Protection

Company CARNEGIE NATURAL GAS
 Address PITTSBURGH, PA.
 Farm FLOYD FURR ET AL
 Tract _____ Acres 90 Lease No. E-12326-20
 Well (Farm) No. 2 Serial No. 1603
 Elevation (Spirit Level) 771
 Quadrangle GLENVILLE NW
 County SILVER District DEKALA
 Engineer D.T. BRITTON
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date 6-2-44 Scale 1" = 40 rods

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. G.L. - 661 ✓

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

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

14295

WW-4A
Revised 6-07

1) Date: May 30, 2018
2) Operator's Well Number
656306 Furr #1603

3) API Well No.: 47 - 021 - 00661

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>See Attached</u>	Name _____
Address _____	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>See Attached</u>
(c) Name _____	Address _____
Address _____	Name _____
6) Inspector <u>Danny Mullins</u>	(c) Coal Lessee with Declaration
Address <u>220 Jack Acres Rd.</u>	Name _____
<u>Buckhannon WV 26201</u>	Address _____
Telephone <u>304-932-6844</u>	_____


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 Department 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: Erin Spine 
 Its: Regional Land Supervisor
 Address 2400 Ansys Drive, Suite 200
Canonsburg PA 15317
 Telephone (304) 848-0035

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Office of Oil and Gas
JUN 05 2018

Subscribed and sworn before me this 1st day of June 2018
Rebecca L. Wanstreet
My Commission Expires 4-7-2020
Notary Public WV Department of Environmental Protection

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 depprivacyoffier@wv.gov.

47-021-00661

656306 Furr #1603

Owner(s) (Surface and Access)

Dane and Harriett Whipkey (Life)
JM Linda Whipkey ✓
2239 Lower Cedar Creek Rd.
Glennville WV 26350

Donna Suzanne Morningstar ✓
5519 Sinking Creek Rd.
Coxs Mills WV 26342

Coal Owner(s):

Dorothy V Beall Trust et al ✓
PO Box 1519
Elkins WV 26241

Potential Water Owner(s):

Dane and Harriett Whipkey (Life) ✓
2239 Lower Cedar Creek Rd.
Glennville WV 26350

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WW-9
(5/16)

API Number 47 - 021 ~~00462~~ 00661P
Operator's Well No. 656306 Furr #1603

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

Operator Name EQT Production Company OP Code _____
Watershed (HUC 10) Cedar Creek Quadrangle Tanner

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No
Will a pit be used? Yes No

If so, please describe anticipated pit waste: Formation Fluids
Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20 ml

- Proposed Disposal Method For Treated Pit Wastes:
- Land Application (if selected provide a completed form WW-9-GPP)
 - Underground Injection (UIC Permit Number _____)
 - Reuse (at API Number _____)
 - Off Site Disposal (Supply form WW-9 for disposal location)
 - 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, removed 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 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 Department 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 submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]
Company Official (Typed Name) Erin Spine
Company Official Title Regional Land Supervisor

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Subscribed and sworn before me this 1st day of June, 20 18

Rebecca L Wanstreet Notary Public
My commission expires 4-7-2020



EQT Production Water plan Offsite disposals
--

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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Proposed Revegetation Treatment: Acres Disturbed 1± Prevegetation pH

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type (10-20-20) or equivalent

Fertilizer amount 1/3 ton lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Aslike Clover	5	Aslike Clover	5
Annual Rye	15		

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments:

Title: 006 Inspector Date: 6-13-18

Field Reviewed? () Yes (/) No

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WV Department of Environmental Protection

06/22/2018

Topo Quad: Tanner 7.5'

Scale: 1" = 400'

County: Gilmer

Date: March 15, 2018

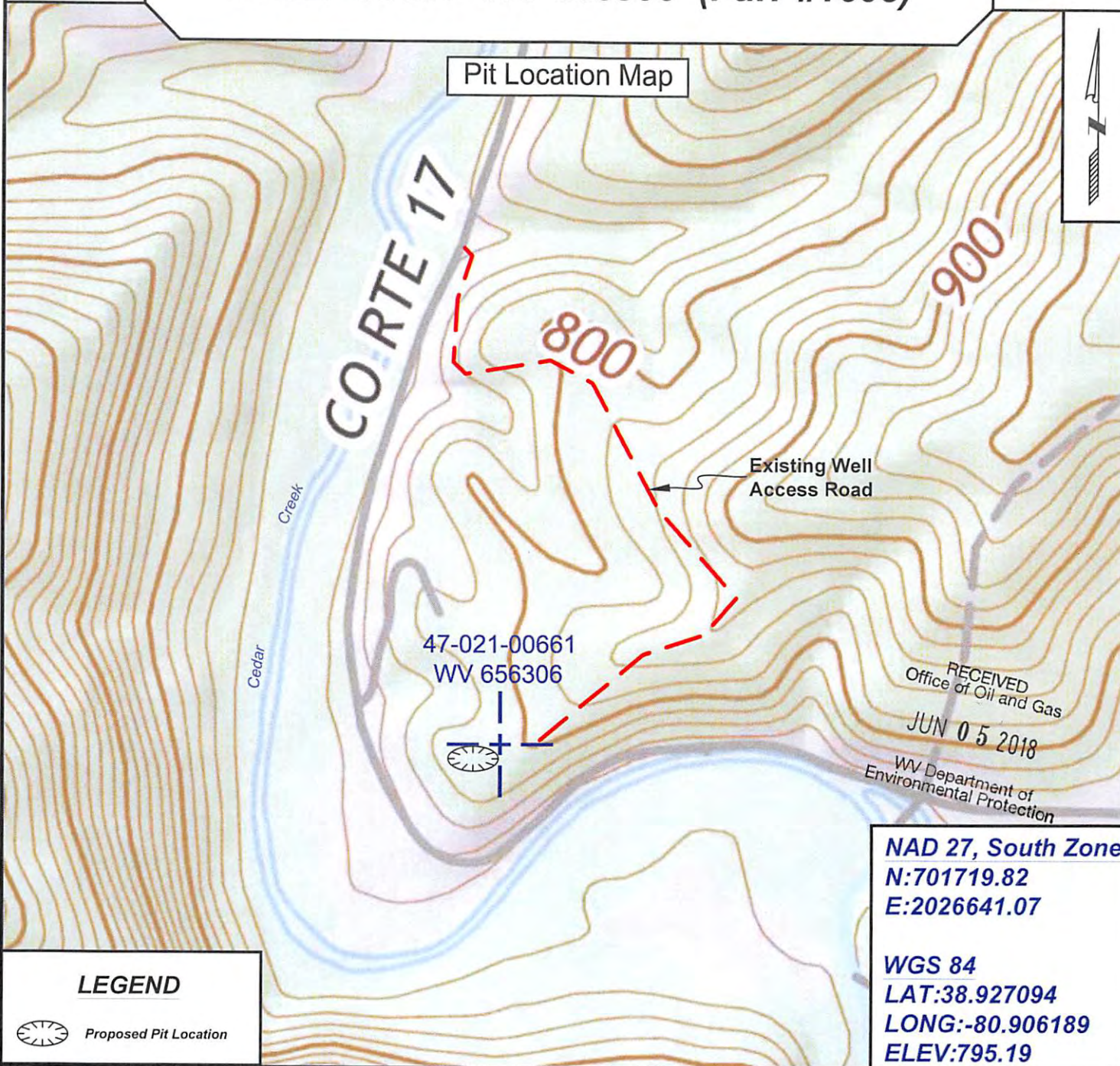
District: DeKalb

Project No: 25-19-00-07

47-021-00661 WV 656306 (Furr #1603)

Topo

Pit Location Map



LEGEND

Proposed Pit Location

NAD 27, South Zone
N:701719.82
E:2026641.07

WGS 84
LAT:38.927094
LONG:-80.906189
ELEV:795.19



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

Topo Quad: Tanner 7.5'

Scale: 1" = 500'

County: Gilmer

Date: March 15, 2018

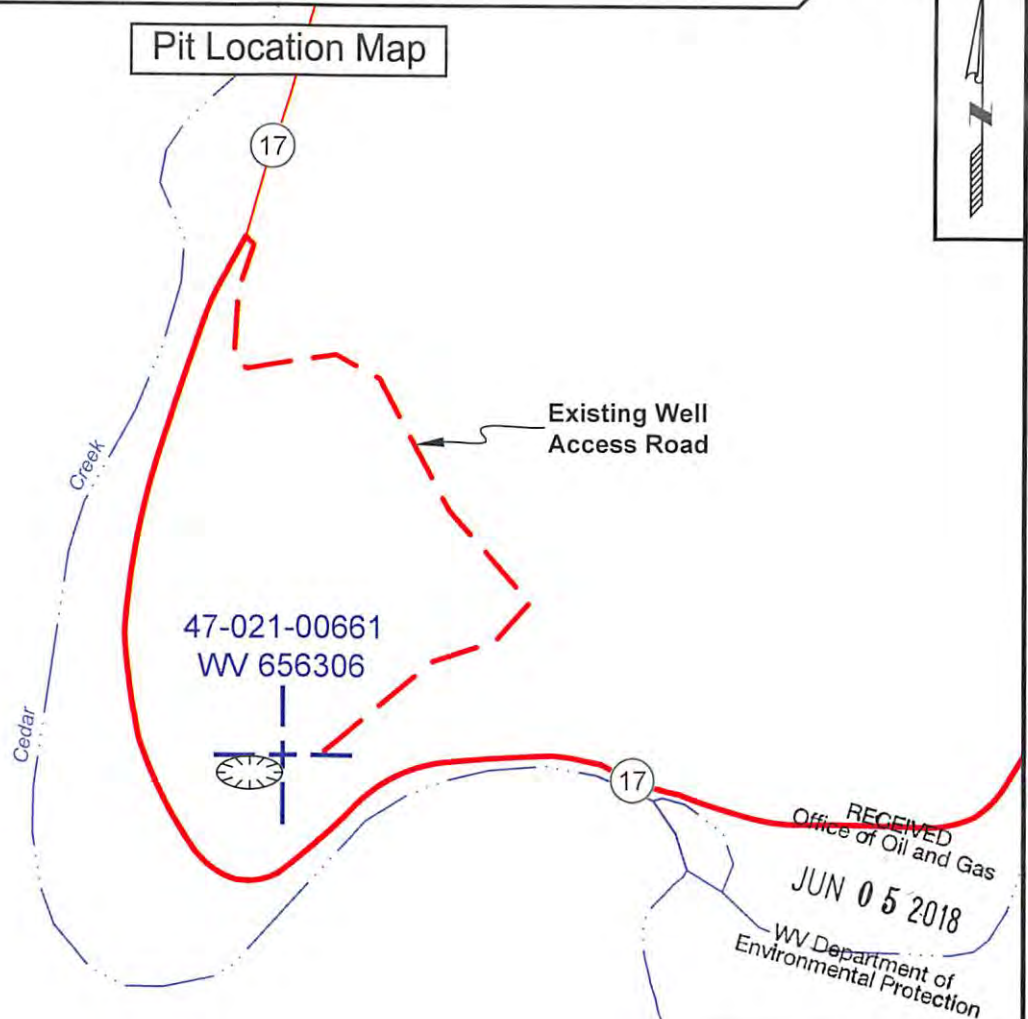
District: DeKalb

Project No: 25-19-00-07

Highway

47-021-00661 WV 656306 (Furr #1603)

Pit Location Map




47-021-00661
WV 656306

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NAD 27, South Zone
N:701719.82
E:2026641.07

WGS 84
LAT:38.927094
LONG:-80.906189
ELEV:795.19

LEGEND

 Proposed Pit Location



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PREPARED FOR:

EQT Production Company

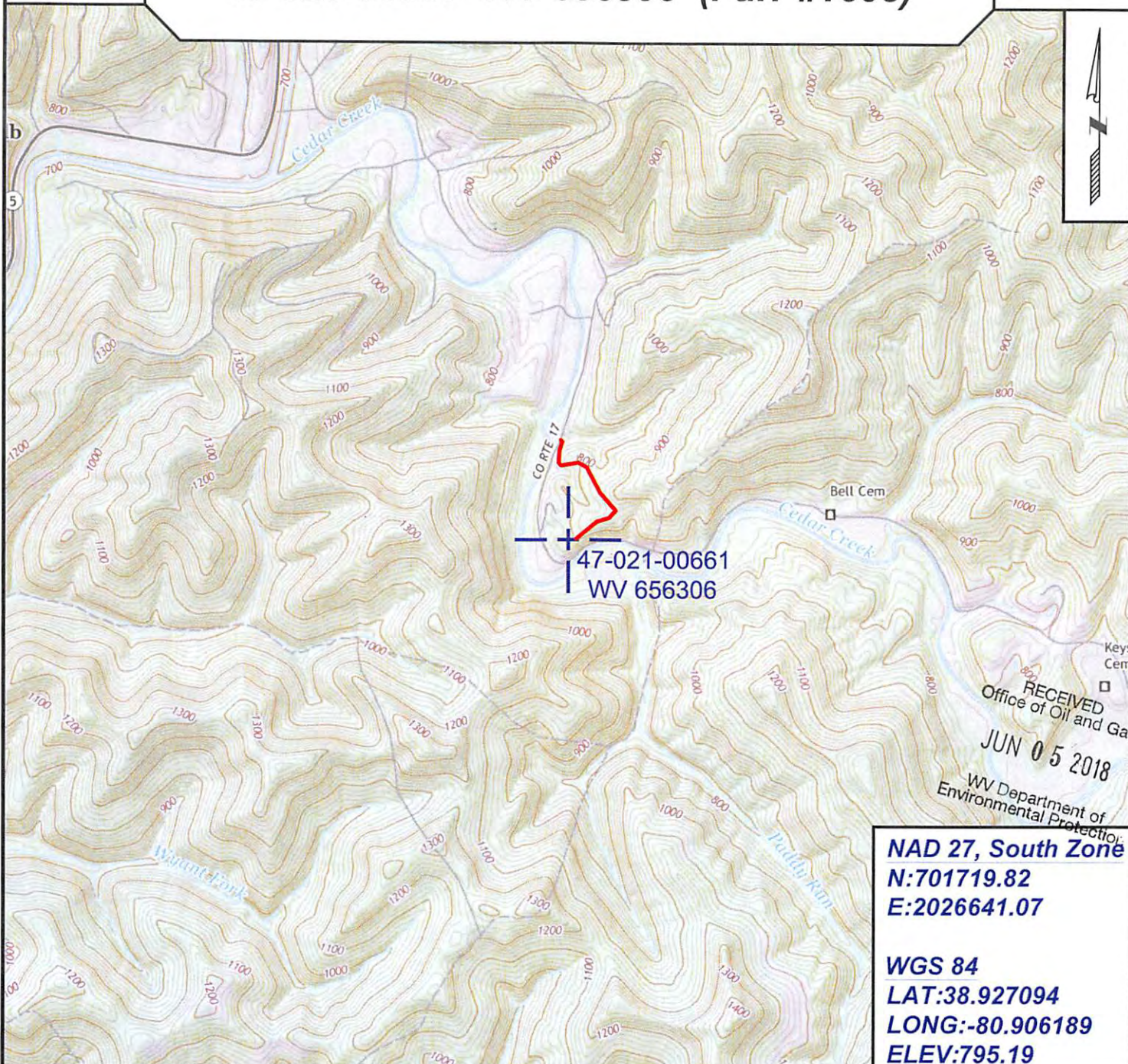
P.O. Box 280
 Bridgeport, WV 26330

06/22/2018

Topo Quad: Tanner 7.5'	Scale: 1" = 2000'
County: Gilmer	Date: March 15, 2018
District: DeKalb	Project No: 25-19-00-07

47-021-00661 WV 656306 (Furr #1603)

Topo



NAD 27, South Zone
N:701719.82
E:2026641.07

WGS 84
LAT:38.927094
LONG:-80.906189
ELEV:795.19



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 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
 P.O. Box 280
 Bridgeport, WV 26330

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: ⁰⁰⁶⁶¹ ~~47-021-00462~~ WELL NO.: WV 656306 (Furr #1603)

FARM NAME: Floyd Furr, et al.

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Gilmer DISTRICT: DeKalb

QUADRANGLE: Tanner 7.5'

SURFACE OWNER: Dane & Harriet Whipkey

ROYALTY OWNER: Dorothy V. Beall Trust, et al.

UTM GPS NORTHING: 4308690

UTM GPS EASTING: 508132 GPS ELEVATION: 242 m (795 ft)

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:

Survey grade GPS _____ : Post Processed Differential _____
 Real-Time Differential _____
 Mapping Grade GPS X : Post Processed Differential X
 Real-Time Differential _____

- Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

[Signature]
Signature

PS # 2180
Title

4/13/18
Date

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Miss Utility of West Virginia (WV811)
(Exhibit A)
Directions to Gas Well No. WV 656306
API No. 47-021-00661

- Beginning at the intersection of US Interstate 79 Exit 79 (Burnsville/Glenville) and WV State Route 5 in Braxton County, WV.
- Proceed Northwest on WV State Route 5, for approximately 15 miles, to US Route 119 & 33, on the left.
- Turn left onto US Route 119 & 33 and proceed Southwest, for approximately 4.3 miles, to WV County Route 17, on the right. *(Point No. 1)*
- Turn right onto WV County Route 17 and proceed Northwest, for approximately 2.9 miles, to the Well Access Road, on the right. *(Point No. 2)*
- Turn right onto the Well Access Road and proceed Southeast, for approximately 0.42 miles, arriving at Gas Well WV 656306. *(Point No. 3)*

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 Road
 Alum Creek, WV 25003
phone: 304-756-2949 fax: 304-756-2948

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SITE	LATITUDE	LONGITUDE
1	38.917869	-80.868026
2	38.930935	-80.906549
3	38.927094	-80.906189
A	38.930051	-80.906657
B	38.930064	-80.905695
C	38.928086	-80.904005

**MISS UTILITY OF WEST VIRGINIA (WV 811)
(EXHIBIT B)
DIRECTIONS TO EXISTING GAS WELL NO. WV 656306
API NO. 47-021-00661**



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JUN 05 2018
WV Department of Environmental Protection

- NOTES**
1. ALL ACCESS ROADS SHOWN HEREON ARE EXISTING AND WERE FLAGGED IN PINK AND WHITE MARKING RIBBON.
 2. THIS MAP IS PREPARED ONLY FOR THE PARTIES REFERENCED HEREON FOR THE PURPOSE OF NOTIFICATION TO MISS UTILITY OF WEST VIRGINIA (WV 811).
 3. DRAWING IS NOT TO SCALE.



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

County:	Gilmer
District:	DeKalb
Date:	March 16, 2018
Project No:	25-19-00-07
File Name:	WV 656306 FURR

PREPARED FOR:
EQT Production Company
P.O. Box 280
Bridgeport, WV 26330

21-00661P



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
LEASE NAME AND WELL No. Furr #1603 - WV 656306 - API No. 47-021-00661

POTENTIAL SAMPLE LOCATIONS

Site: 1 Spacing: 433 +/- Owner: Dane & Harriet J. Whipkey (Life)
Address: 2239 Lower Cedar Creek Rd., Glenville, WV 26351 Phone No. _____
Comments: _____

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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 Road
Alum Creek, WV 25003
phone: 304-756-2949 fax: 304-756-2948

Topo Quad: Tanner 7.5'

Scale: 1" = 2000'

County: Gilmer

Date: March 15, 2018

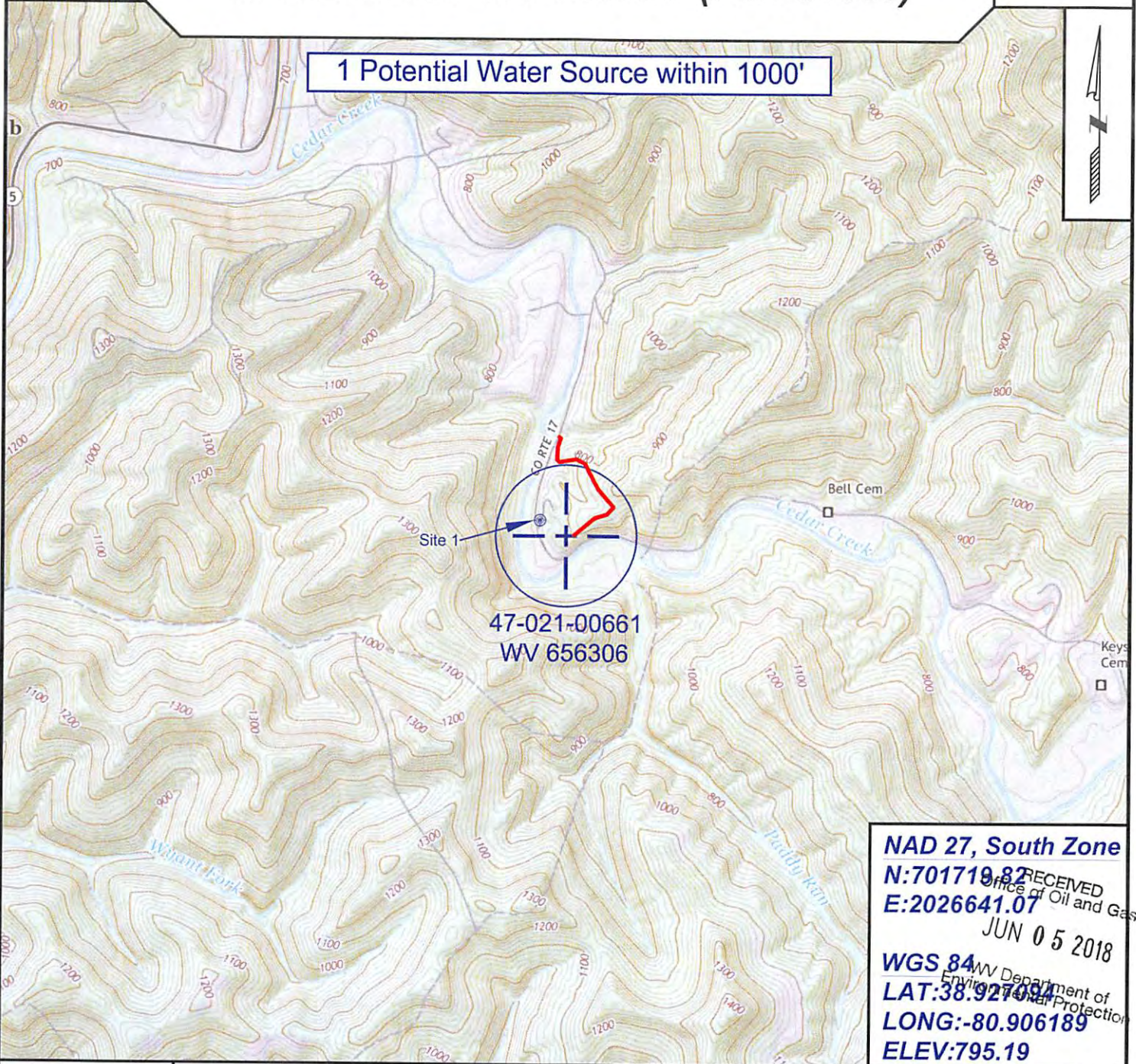
District: DeKalb

Project No: 25-19-00-07

Water

47-021-00661 WV 656306 (Furr #1603)

1 Potential Water Source within 1000'



47-021-00661
WV 656306

NAD 27, South Zone

N:701719.82
E:2026641.07

JUN 05 2018

WGS 84
LAT:38.927084
LONG:-80.906189
ELEV:795.19



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06/22/2018