



west virginia department of environmental protection

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

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

March 08, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1702106, issued to EQT PRODUCTION COMPANY, 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 all 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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.


James Martin
Chief

Operator's Well No: 4970
Farm Name: SUMMERS
API Well Number: 47-1702106
Permit Type: Plugging
Date Issued: 03/08/2016

Promoting a healthy environment.

03/11/2016

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.
4. This well is under a consent order and must be plugged under the terms of that agreement.

1702106P

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

Date: February 17, 2016
Operator's Well
Well No. 604970 (E.W. Summers #4970)
API Well No.: 47 017 - 02106

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

*CK 1000038
1000000
1000000*

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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

5) Elevation: 1074 ft. Watershed: Camp Run
Location: Southwest County: Doddridge Quadrangle: Oxford 7.5'
District: _____

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

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

8) Oil & Gas Michael Goff
Name: P. O. Box 134
Address: Pullman, WV 26421

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.

OK [Signature]

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Office of Oil and Gas
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WV Department of
Environmental Protection

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 _____ Date _____

03/11/2016

PLUGGING PROGNOSIS

604970

E.W.Summers # 4970

API# 47-017-02106*

(Note well has a Doddridge County API number, but the well is actually in Ritchie County)

District, Union
Ritchie., WV

BY: R Green

DATE: 2/10/16

CURRENT STATUS:

TD @ 1936'

Elevation @ 1074'

10" casing @ 356'

8 1/4" casing @ 984'

6 5/8" casing @ 1816'

5 3/16" casing @ 1868'

Fresh Water, 85'

Oil Shows, none reported

Gas shows @ 1600' 1722'

Oil shows @ None reported.

Coal @ None reported.

1. Notify inspector Michael Goff 304-549-9823, 24 hrs. prior to commencing operations.
2. RIH wireline, check TD, if TD is below 1868', continue to next step, if TD is not below 1868', contact EQT supervisor for instructions. *2a. PUMP GEL AHEAD OF CEMENT.*
3. TIH tbg to 1900', set 300' C1A cement plug 1900' to 1600'. (5 3/16" and 6 5/8" casing seats.)
4. WOC 8 hrs. Check TOC, add additional C1A cement if necessary. TOOH tbg.
5. Free point 5 3/16" casing, cut casing at free point, TOOH casing, set 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.
6. TOOH tbg to top of casing cut gel hole to next plug.
7. Free point 6 5/8" casing, cut casing at free point, TOOH casing, set 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.
8. TOOH tbg to top of casing cut plug, gel hole to 1100'.
9. Set 300' C1A cement plug 1100' to 800', (elevation and 8 1/4" casing seat).
10. TOOH tbg to TOC, gel hole 800' to 700'.
11. Free point 8 1/4" casing, cut casing at free point, TOOH casing.
12. Set 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.
13. TOOH tbg to top of casing cut plug, gel hole to next plug.
14. Free point 10" casing, cut casing at free point, TOOH casing. Set 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.
15. * (Note if unable to free point, cut and pull 10" casing, perforate 10" casing with 4 holes each @ 300' 200' 100', TIH tbg to 400' set 400' C1A cement plug ,400' to surface.)
16. TOOH tbg to top of casing cut plug, set C1A cement plug from this point to surface.
17. Erect monument with API#, company name, company 6 digit ID #, and date plugged.
18. Reclaim location and road to WV-DEP specifications.

OK
2/11/16

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1702106P

604970

47-017-02106



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. _____ Oil or Gas Well "GAS"
(KIND)

Company Pittsburgh & West Va Gas Company.
 Address Clarksburg, West Va.,
 Farm E. W. Summers Acres _____
 Location (waters) Holbrook N/E, 3-C
 Well No. 4970 Elev. 1074'
 District Union County Ritchie
 The surface of tract is owned in fee by _____
 Address _____
 Mineral rights are owned by _____
 Address _____
 Drilling commenced October 17, 1928
 Drilling completed December 16, 1928
 Date Shot 12-17-1928 From _____ To 1936'
 With 10 Quarts - Nitro Glycerine.
 Open Flow _____ /10ths Water in _____ Inch
 _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock Pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	356'	356'	Size of
8 1/2	984'	984'	
6	1816'	1816'	Depth set
5 3/16	1868'	1868'	
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface			0	5			
Red Rock			5	40			
Lime			40	70			
Slate&Lime Shells			70	85	Water	85'	6 Bailers Hr.
Lime			85	120			
Red Rock			120	170			
Lime			170	200			
Red Rock			200	260			
Slate&Lime Shells			260	279			
Lime			279	300			
Red Rock			300	350			
Lime			350	370			
Red Rock			370	440			
Lime			440	460			
Slate&Shells			460	650			
Red Rock			650	655			
Lime			655	665			
Red Rock			665	700			
Brown Shale			700	770			
Slate			770	790			
Lime	Dark	Hard	790	820			
Slate&Shells			820	890			
Little Dunkard	Light	Open	890	934			
Slate			934	975			
Big Dunkard		Open	975	1035			
Slate&Shells	Dark		1035	1200	Elevation		according to record.
Gritty Lime	Light		1200	1237			
Slate&Shells			1237	1290			
Gas Sand	Light	Open	1290	1355			
Slate&Shells	Dark		1355	1445			
1st. Salt Sand	Light		1445	1498			
Slate&Shells	Dark		1498	1523			
2nd. Salt Sand	Light	Open	1523	1540			
Slate			1540	1565			
3rd. Salt Sand	Light		1565	1612	Sh. Gas	1600'	
Slate	Dark		1612	1705			
Maxon Sand	Light	Close	1705	1755	Gas	1722-1726'	
Slate			1755	1760	Water	1735-1740'	Hole full.
Lime	Light	Hard	1760	1803			

(Over)

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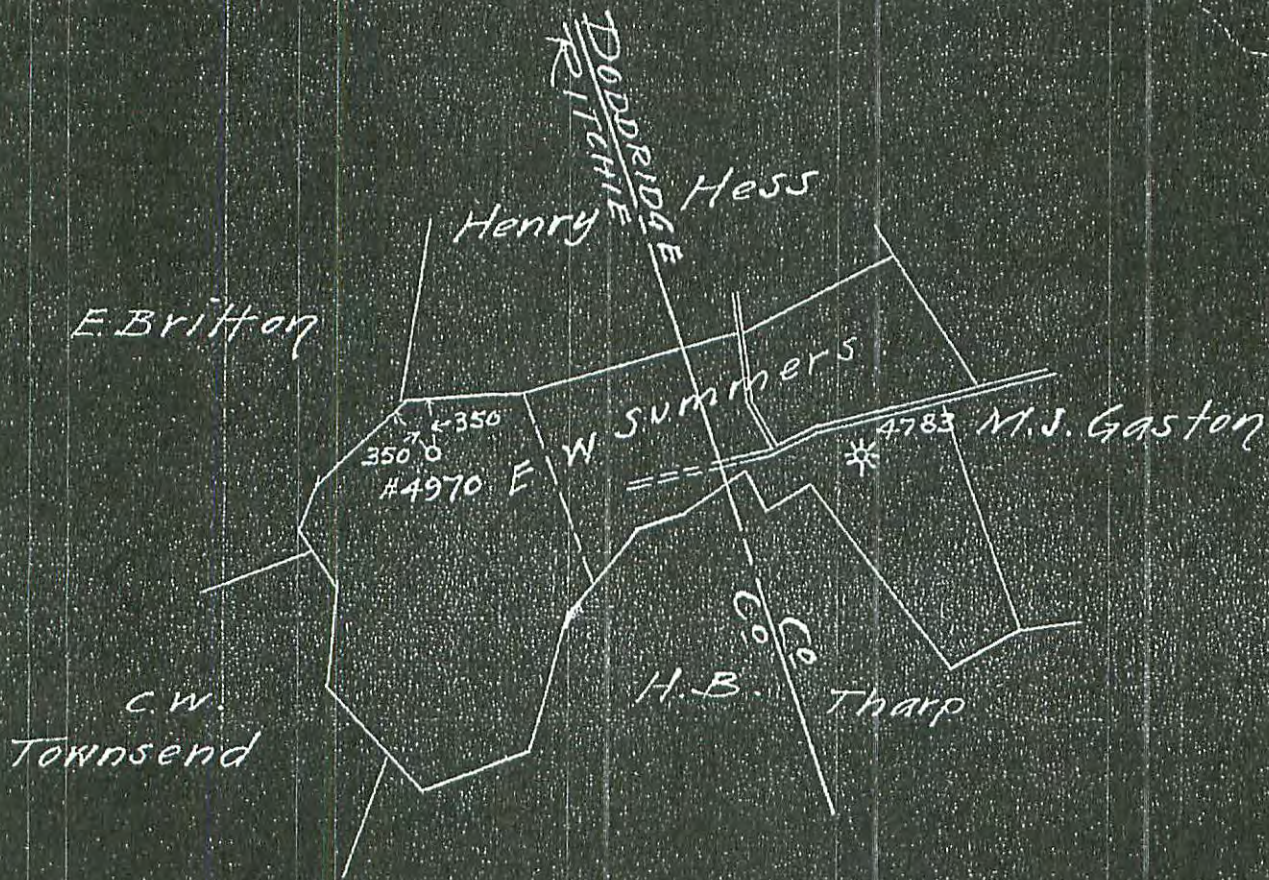
FEB 18 2015

W/V Department of
Environmental Protection

03/11/2016

PROPOSED LOCATION

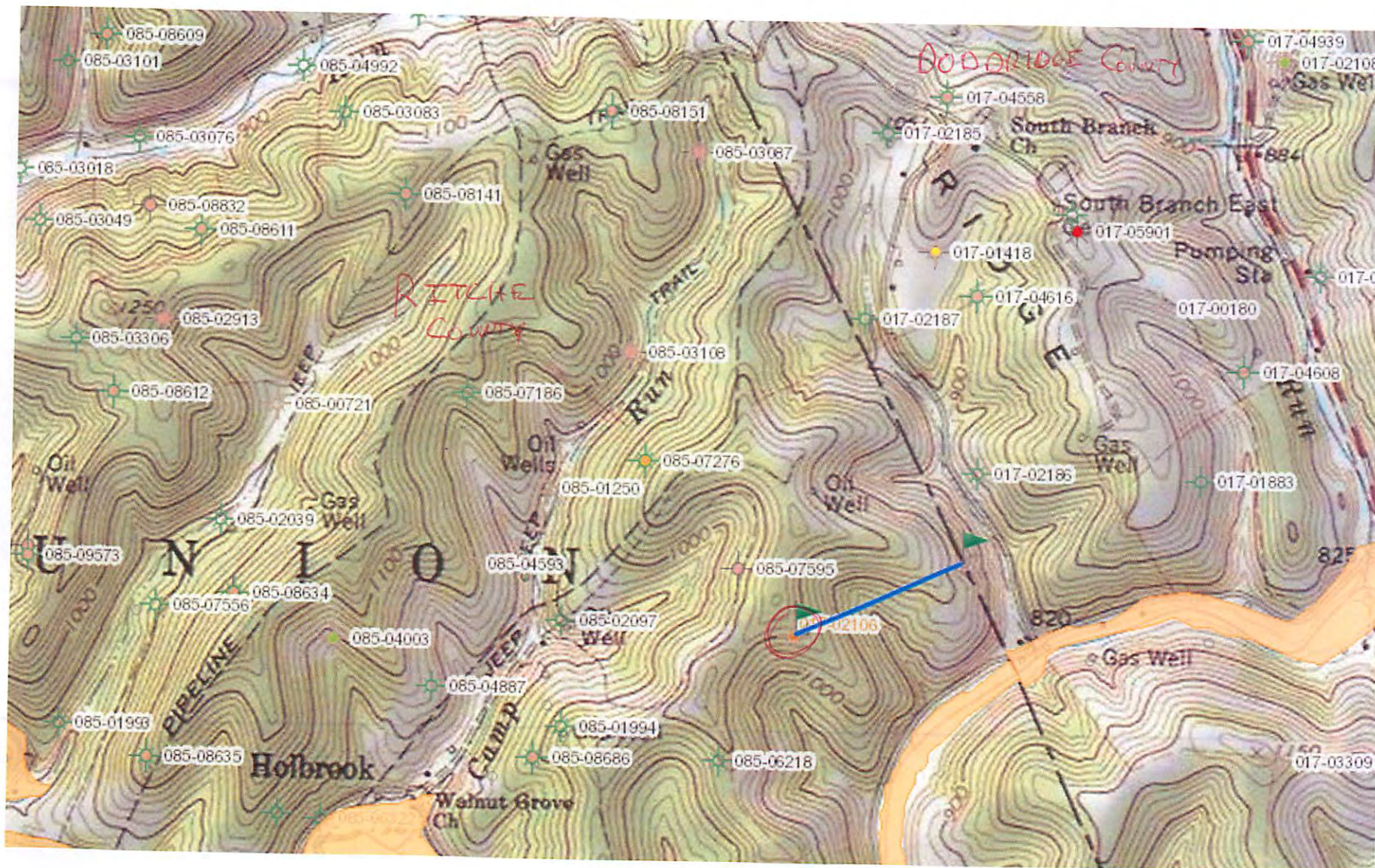
Lease No. 7711 Lessor E.W. Summers Acres 125
 Dist. or Twp. SOUTHWEST UNION County DODDRIDGE RITCHIE State WVa.
 Quadrangle Holbrook Quarter NE 3rd Date Sept 23rd 1970
 Location No. 2 Pittsburgh + W Va Gas Company Well No. 4970
 Lease Expires F
 Reservation



1 Feet

Measurement Result

1,453.4 Feet



1702106 F

1) Date: February 17, 2016
2) Operator's Well Number
604970 (E.W. Summers #4970)
3) API Well No.: 47 017 - 02106
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 James R. Haught
Address Route 1, P. O. Box 152
West Union, WV 26456
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Michael Goff
Address P. O. Box 134
Pullman, WV 26421
Telephone (304) 549-9823

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name Wilma E. Haught
36811 Brook Road
Address Fruitland Park, FL 34731
Name _____
Address _____
(c) Coal Lessee with Declaration
Name None
Address _____

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.

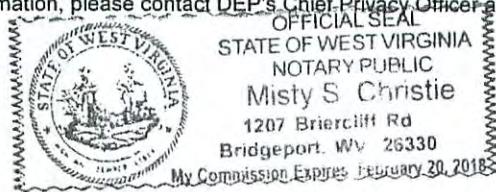
Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Division of Environmental 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

Subscribed and sworn before me this 17th day of February, 2016

My Commission Expires: 2/20/18

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

Operator Name: EQT PRODUCTION COMPANY OP ID: _____
Watershed: Camp Run Quadrangle: Oxford 7.5'
Elevation: 1074 ft. County: Ritchie District: Union

Description of anticipated Pit Waste: Formation Fluids

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ___ No X
Will synthetic liner be used in the pit? Yes Is so, what ml.? 10 ml

Proposed Disposal Method for Treated Pit Wastes:

- Land Application
- Underground Injection - UIC Permit Number _____
- Reuse (at API Number) _____
- Offsite Disposal Permit #. _____
- Other: Explain _____

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. _____
If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used? _____

Will closed loop system be used? _____

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? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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 terms 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.

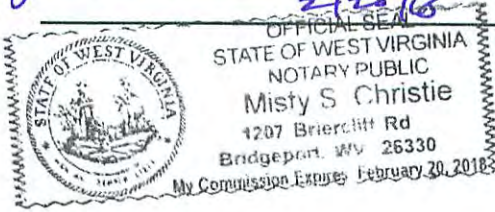
Company Official Signature *Victoria Roark*

Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 17th day of February, 2016

Misty S. Christie Notary Public
My Commission Expires 2/20/18

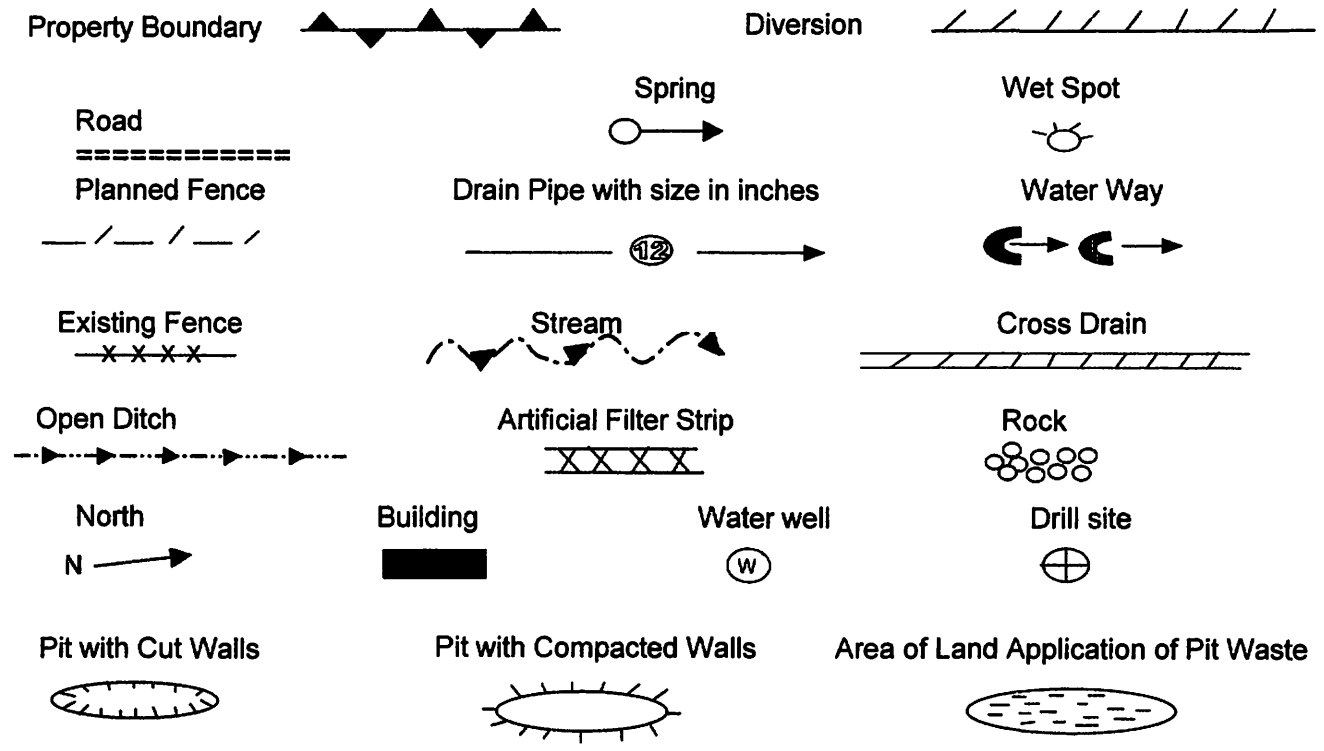


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1702106P

OPERATOR'S WELL NO.:
604970 (E.W. Summers #4970)

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

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WV Department of
Environmental Protection 03/11/2016

Topo Quad: Oxford 7.5'

Scale: 1" = 2000'

County: Ritchie

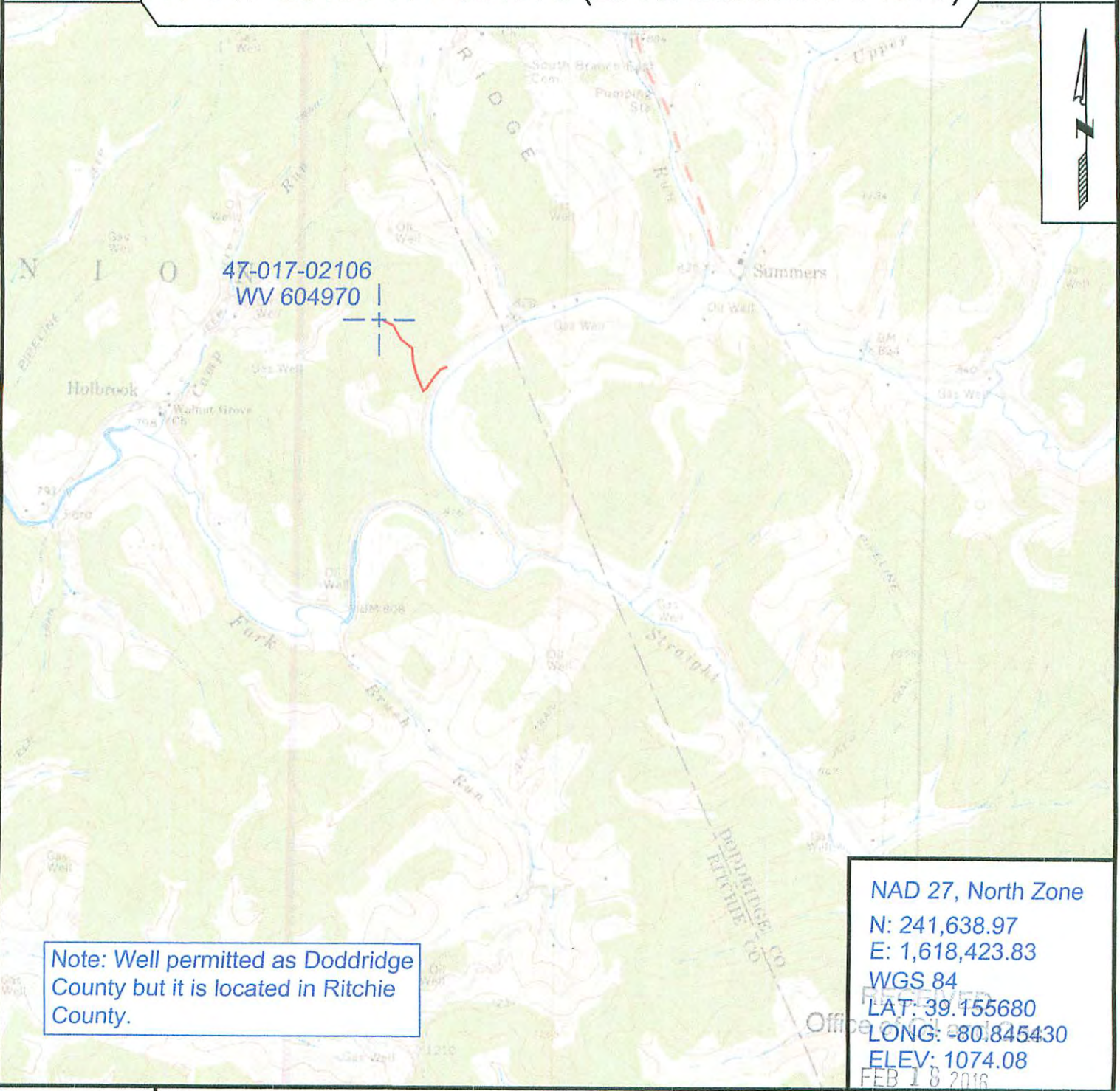
Date: February 9, 2016

District: Union

Project No: 67-30-00-08

47-017-02106 WV 604970 (E. W. Summers #4970)

Topo



47-017-02106
WV 604970

Note: Well permitted as Doddridge County but it is located in Ritchie County.

NAD 27, North Zone
 N: 241,638.97
 E: 1,618,423.83
 WGS 84
 LAT: 39.155680
 LONG: -80.845430
 ELEV: 1074.08
 FEB 18 2016



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:

WV Department of
EQT Production Company
 Environmental Protection
 P.O. Box 280
 Bridgeport, WV 26330

03/11/2016

WW-7
8-30-06



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

API: 47-017-02106 WELL NO.: WV 604970 (E.W. Summers #4970)

FARM NAME: E.W. Summers

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Doddridge DISTRICT: Southwest

QUADRANGLE: Oxford 7.5'

SURFACE OWNER: James R. Haught

ROYALTY OWNER: Cynthia F. Powell, et al.

UTM GPS NORTHING: 4334064

UTM GPS EASTING: 513355 GPS ELEVATION: 327 m (1074 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.

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Office of Oil and Gas
FEB 18 2015

Steve Brown
Signature

PS# 2180
Title

WV Department of Environmental Protection
2/9/16
Date



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
LEASE NAME AND WELL No. E. W. Summers #4970 - WV 604970 - API No. 47-017-02106

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 604970.

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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 Light Addition Drive
Martinsburg, WV 26000
phone: 304-901-2162
fax: 304-901-2182

WV Department of
Environmental Protection

03/11/2016

1702106P

Topo Quad: Oxford 7.5'

Scale: 1" = 2000'

County: Ritchie

Date: February 9, 2016

District: Union

Project No: 67-30-00-08

Water

47-017-02106 WV 604970 (E. W. Summers #4970)

No potential water wells within 1000'

47-017-02106
WV 604970



Note: Well permitted as Doddridge County but it is located in Ritchie County.

NAD 27, North Zone
N: 241,638.97
E: 1,618,423.83
WGS 84
LAT: 39.155680
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PREPARED FOR:

WV Department of
EQT Production Company

P.O. Box 280
Bridgeport, WV 26330

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