



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

August 14, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-2102359, 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: 2
Farm Name: McDONALD, J. A.
API Well Number: 47-2102359
Permit Type: Plugging
Date Issued: 08/14/2015

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.

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

Date: July 20, 2015
Operator's Well
Well No. 656946 (McDonald #2 - 1787)
API Well No.: 47 021 - 02359

STATE OF WEST VIRGINIA
DIVISION 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:
If Gas, Production Or Underground storage Deep Shallow
- 5) Elevation: 1164 ft. Watershed: Paddy Run
Location: Center County: Gilmer Quadrangle: Tanner
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 Danny Mullins
Name: 124 Big Trace Fork Road 220 JACK ACRES
Address: Harts, WV 25524 (BUCKHANNON, WV)
- 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.

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 8-4-15

PLUGGING PROGNOSIS -Weston

McDonald, J.A. #1787 (656946)

GILMER, Co, WV
API # 47-021-02359
District Center

BY: Craig Duckworth
DATE: 2/18/15

CURRENT STATUS:

9 5/8" csg @ 247' (120 sks cement)
4 1/2" csg @ 2002' (100 sks cement)

TD @ 2009'

Fresh Water @ None reported Salt Water @ None reported
1" Salt Sand @ 1199' Coal @ None reported
Gas shows @ None reported
Oil Shows @ None Reported
Stimulation: Fractured Perfs. @1976'-1931' Big Injun & 1822'-1813' Little Lime
Elevation: 1081'

DM

- 1a. 1. Notify State Inspector, Danny Mullins 304-932-6844, 24 hrs. Prior to commencing operations.
- 2. TIH w/ tbg @ 2002'; Set 300' C1A Cement Plug @ 2002' to 1702' (Perfs @ 1976'-1931'Big Injun & 1822'-1813'Little lime)
- 3. TOOH w/ tbg, Free Point 4 1/2", cut 4 1/2" @ free point, TOOH w/ 4 1/2" csg
- 4. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 4 1/2" cut. Do not omit any plugs.
- 5. TIH w/ tbg @ 1702; gel hole @ 1702' to 1500'.
- 6. TOOH w/ tbg @ 1500'; Set 100' C1A Cement Plug @ 1500' to 1400'(4 1/2" csg cut)
- 7. TOOH w/ tbg @ 1400; gel hole @ 1400' to 1200'.
- 8. TOOH w/ tbg @ 1200'; Set 200' C1A Cement Plug @ 1200' to 1000' (Salt Sand @ 1199' & Elevation @ 1081')
- 9. TOOH w/ tbg @ 1000'; gel hole @ 1000' to 600'
- 10. TOOH w/ tbg @ 600'; Set 100' C1A Cement Plug @ 600' to 500' (Safety Plug)
- 11. TOOH w/ tbg @ 500'; gel hole @ 500' to 300'
- 12. TOOH w/ tbg @ 300'; Set 300' C1A Cement Plug @ 300' to 0 (Surface & 10" csg @ 247')
- 13. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 10" cut. Do not omit any plugs.
- 12. Top off as needed
- 13. Set Monument to WV-DEP Specifications
- 14. Reclaim Location & Road to WV-DEP Specifications

★ 1a. SPOT GEL FROM TD TO 2000'.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle GLENVILLE N. W. 4

Permit No. 011-2359
656946

Rotary Oil _____
Cable _____ Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company Carnegie Natural Gas Company
Address 3904 Main Street, Monhall, Pa.
Farm J. A. McDonald 1787 Acres .65
Location (waters) _____
Well No. 2-1787 Elev. 1081'
District Center County Glimer
The surface of tract is owned in fee by Blanche McDonald
Address Glenville, W. Va. 26351
Mineral rights are owned by Blanche McDonald, et al.
Address Glenville, W. Va. 26351

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. Ft. (Sks.)
Size' ' 20-16			
Cond. 13-10"			
9 5/8	247'	247'	120 sacks
8 5/8			
5 1/2			
4 1/2	2002'	2002'	100 sacks
3			
2			
Liners Used			

Drilling Commenced 8/31/73
Drilling Completed 9/3/73
Initial open flow 403,000 cu. ft. _____ hbls.
Final production 267,000 cu. ft. per day _____ hbls.
Well open _____ hrs. before test _____ RP.

Well treatment details:

Attach copy of cementing record.

Well Fractured 10/17/73 by Dowell with 52,000 sand, 1038 hbls water & 3750 gal. Acid in 2 zones, Little Lime & Big Injun Sand.

Coal was encountered at None _____ feet _____ inches
Fresh water _____ feet _____ Salt Water _____ feet _____
Producing Sand Little Lime & Big Injun _____ Depth 1813-22; 1931-76

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Rock			0	20		
Gravel			20	60		
Slate			60	100		
Sand			100	145		
Red Rock			145	212		
Slate			212	282		
Sand			282	284		
Red Rock			284	290		
Slate & Shells			290	308		
Red Rock			308	317		
Slate & Shells			317	341		
Sand			341	354		
Red Rock			354	362		
Slate & Shells			362	386		
Sand			386	380		
Red Rock			380	393		
Sand			393	402		
Slate & Shells			402	486		
Sand			486	492		
Slate & Shells			492	503		
Sand			503	508		
Slate & Sand			508	856		

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DEPT. OF MINES

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* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet ²	Bottom Feet	Oil, Gas or Water	Remarks
Little Dunkard			856	885		
Sand			885	901		
Big Dunkard			901	944		
Sand			944	1011		
Gas Sand			1011	1118		
Sand			1118	1199		
1 st. Salt Sand			1199	1310		
Slate & Shells			1310	1383		
2 nd. Salt Sand			1383	1406		
Slate & Shells			1406	1526		
3 rd. Salt Sand			1526	1565		
Slate & Shells			1565	1598		
4 th. Salt Sand			1598	1662		
Slate & Shells			1662	1706		
Maxton			1706	1742		
Slate			1742	1777		
Little Line			1777	1824		
Pencil Cave			1824	1833		
Big Line			1833	1887		
Big Injun			1887	1979		
Slate & Shells			1979	2009		
		T.D.		2009		

Date October 25, 19 73

APPROVED R. B. Plevins, Geol. (Title)

By CANONITE NATURAL GAS COMPANY (Title)

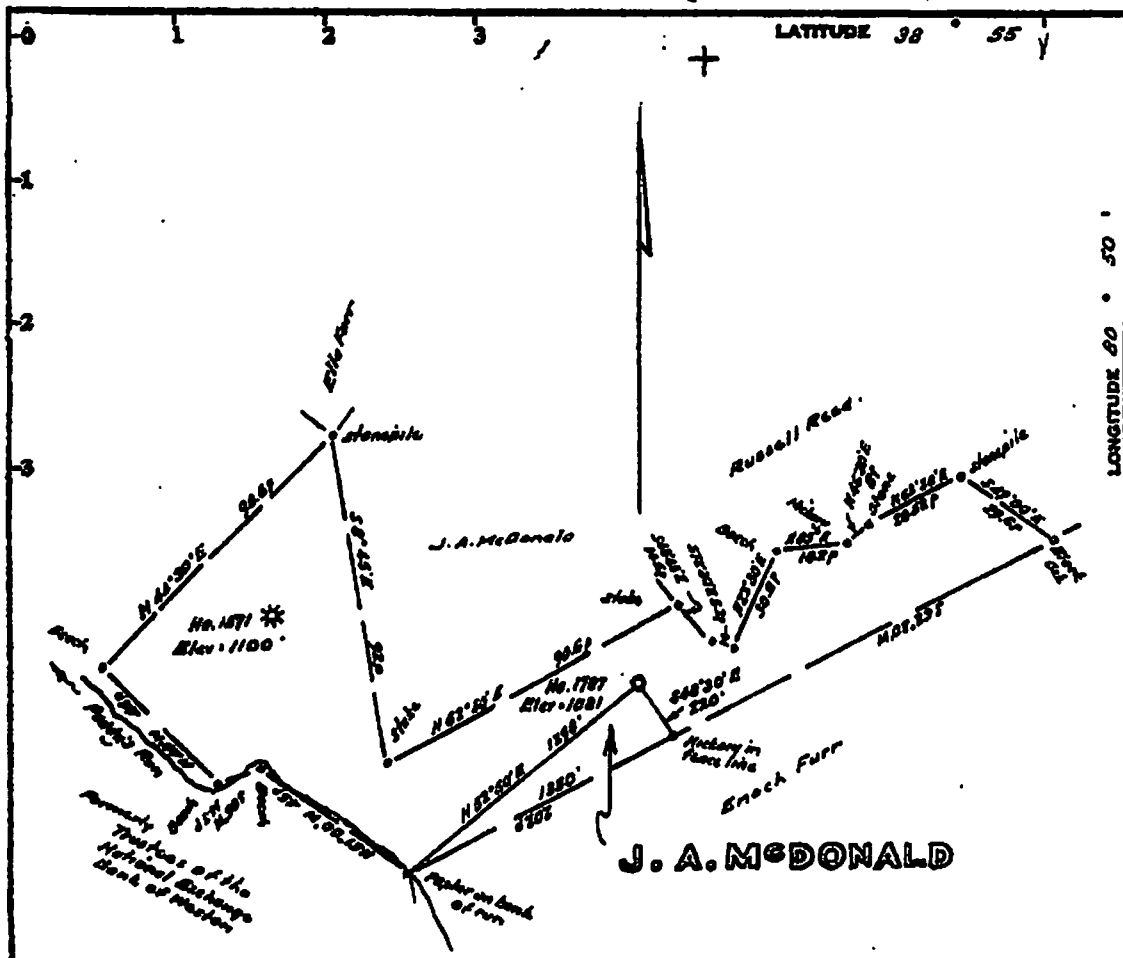
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08/14/2015

6/24/13 E.M.



Minimum Error of Closure Lin 200'

Source of Elevation Elevation Well No. 1571 = 1100'

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Fracture
 New Location
 Drill Deeper
 Abandonment

Map No.

Signed: W. J. Mather
Squares: N E W

Company CARNEGIE NATURAL GAS CO.
 Address Munhall Bldg.
 Farm J. A. McDonald
 Tract Acres 65 Lease No. 13683
 Well (Farm) No. Two Serial No. 1787
 Elevation (Spirit Level) 1081'
 Quadrangle Glacville
 County Gilmer District Center
 Engineer W. J. Mather
 Engineer's Registration No. 1277
 File No. _____ Drawing No. _____
 Date August 18, 1923 Scale 1" = 40 poles = 680'

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

WELL LOCATION MAP
 FILE NO. 612-2359

+ 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.

47 021

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1) Date: July 20, 2015
2) Operator's Well Number
656946 (McDonald #2 - 1787)
3) API Well No.: 47 021 - 02359
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 R. L. and Rosalee Roberts
Address 2871 WV HWY 5
Glennville, WV 26351
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Danny Mullins
Address 124 Big Trace Fork Road 720 Jack Acres
Harts, WV 25524 BUCK HANCOCK, WV
Telephone (304) 932-6844

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name Marjorie Dobbins
8 Valley Manor Lane
Address Williamstown, WV 26187
Name Nancy K. Binns
Address 9641 Whippoorwill Lane
Marion, OH 45043
(c) Coal Lessee with Declaration
Name None
Address _____

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

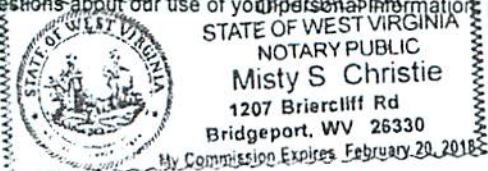
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 - (2) The plat (surveyor's map) showing the well location on Form WW-6.
- The reason you received these documents is that you have 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 20th day of July, 2015
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.



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2102359A

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WW-9
Revised 2/03

AUG 14 2015

Page ___ of ___
2) Operator's Well Number
656946 (McDonald #2 - 1787)
3) API Well No.: 47 021 - 02359

WV Department of
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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: Paddy Run Quadrangle: Tanner
Elevation: 1164 ft. County: Gilmer District: Center

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 [Signature]
Company Official (Typed or Printed) Victoria Roark
Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 13th day of August, 2015

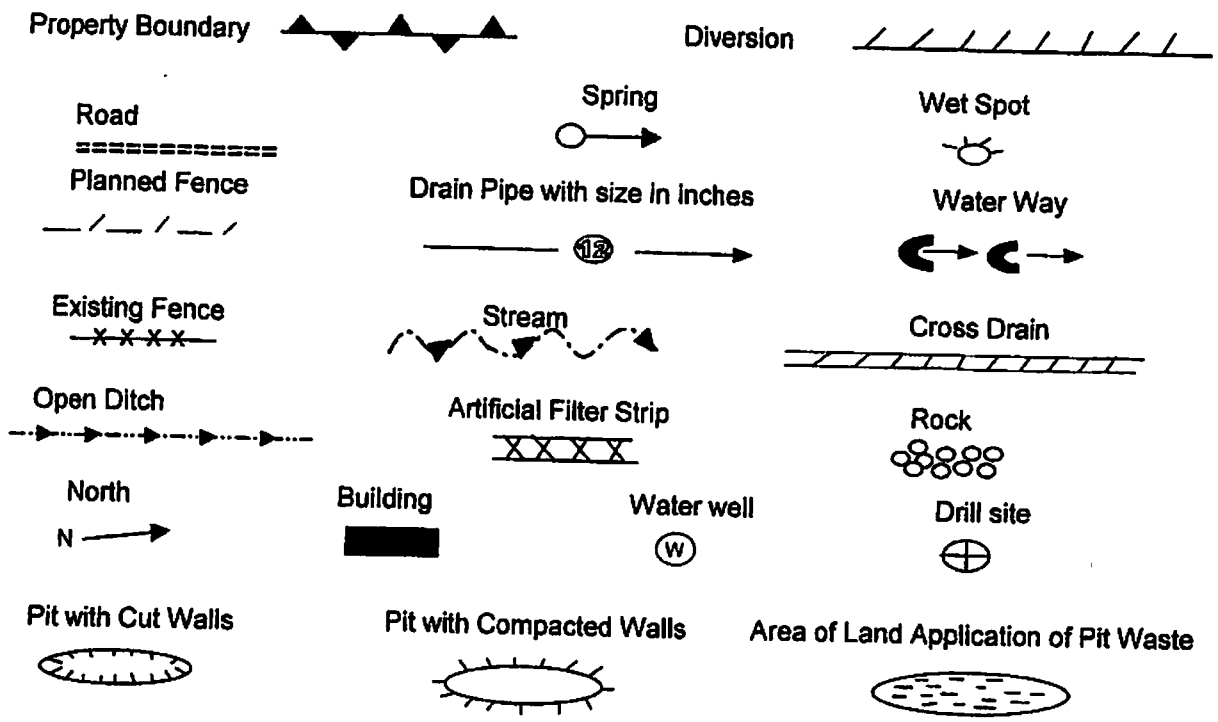
Misty S. Christie Notary Public
My Commission Expires 2/20/18



08/14/2015

OPERATOR'S WELL NO.:
656946 (McDonald #2 - 1787)

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	<i>DM</i>	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

2102359P

Topo Quad: Tanner 7.5'

Scale: 1" = 2000'

County: Gilmer

Date: July 8, 2015

District: Center

Project No: 25-19-00-07

47-021-02359 WV 656946 (McDonald #2 - 1787)

Topo



NAD 27, South Zone
 N: 696,101.63
 E: 2,032,729.71
 WGS 84
 LAT: 38.911651
 LONG: -80.884812
 ELEV: 1164.21



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

08/14/2015

WW-7
8-30-06



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

API: 47-021-02359 WELL NO.: WV 656946 (McDonald #2 - 1787)
FARM NAME: J. A. McDonald
RESPONSIBLE PARTY NAME: EQT Production Company
COUNTY: Gilmer DISTRICT: Center
QUADRANGLE: Tanner 7.5'
SURFACE OWNER: R. L. and Rosalee Roberts
ROYALTY OWNER: Marjorie O. Dobbins, et al.
UTM GPS NORTHING: 4306979
UTM GPS EASTING: 509987 GPS ELEVATION: 355 m (1164 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:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
Survey grade GPS : Post Processed Differential
Real-Time Differential
Mapping Grade GPS X: Post Processed Differential X
Real-Time Differential

4. **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.

Ray O Brown
Signature

PS # 2180
Title

7/10/15
Date

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08/14/2015



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
 LEASE NAME AND WELL No. McDonald #2-1787 - WV 656946 - API No. 47-021-02359

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 656946.

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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

RANSON OFFICE

401 South Fairfax Blvd, Suite 3
Ranson, WV 25438
phone: 304-724-5008
fax: 304-724-5010

Topo Quad: Tanner 7.5'

Scale: 1" = 2000'

County: Gilmer

Date: July 8, 2015

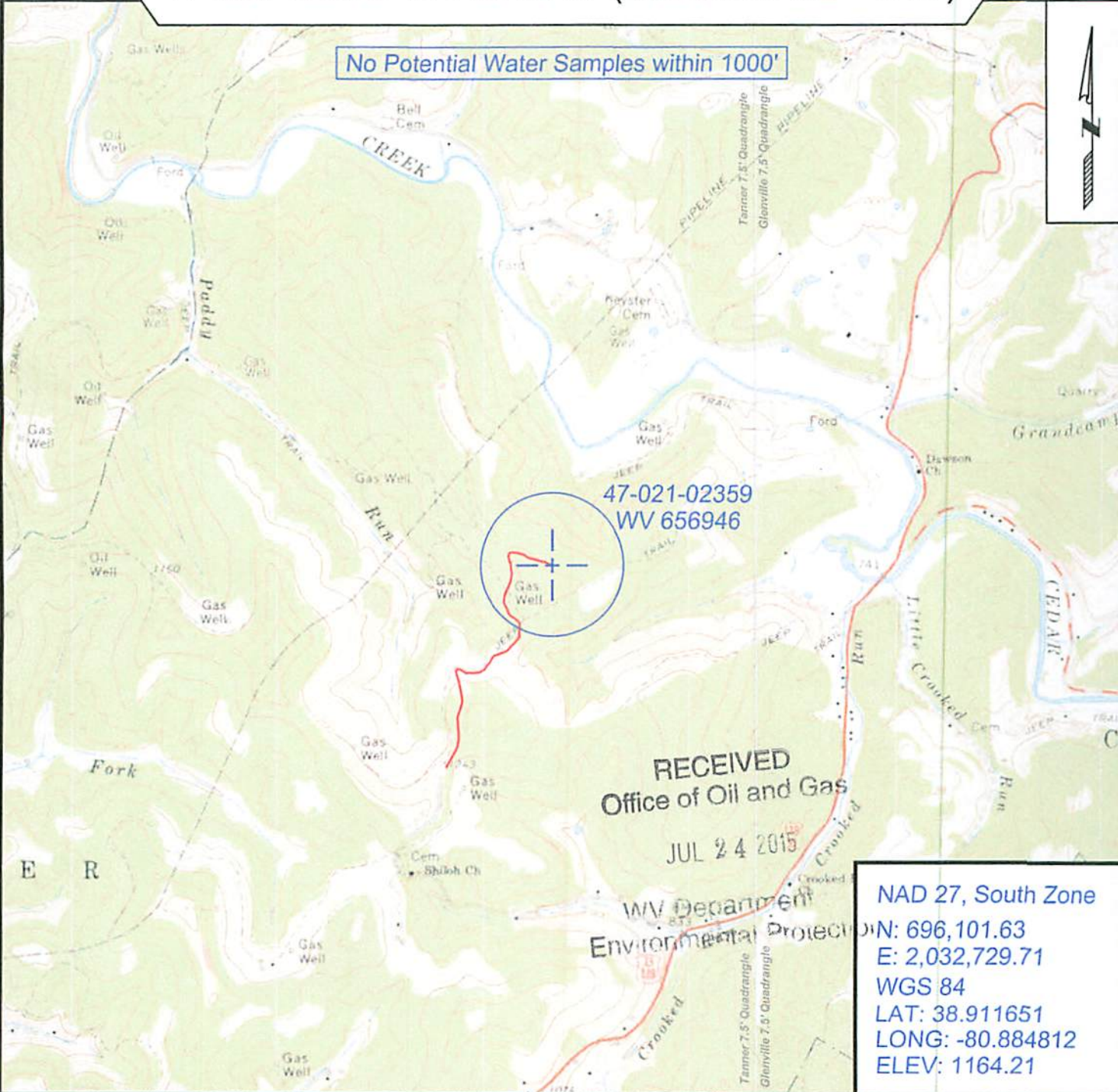
District: Center

Project No: 25-19-00-07

Water

47-021-02359 WV 656946 (McDonald #2 - 1787)

No Potential Water Samples within 1000'



NAD 27, South Zone
 N: 696,101.63
 E: 2,032,729.71
 WGS 84
 LAT: 38.911651
 LONG: -80.884812
 ELEV: 1164.21



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PREPARED FOR:
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