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**west virginia** department of environmental protection

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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

December 06, 2013

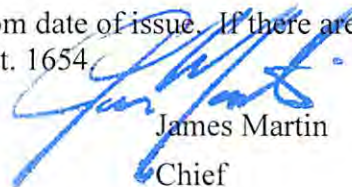
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-2101548, 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: 157121 (W. JONES HEIRS #2)  
Farm Name: JONES, GILBERT C/O THOMAS, L  
**API Well Number: 47-2101548**  
**Permit Type: Plugging**  
Date Issued: 12/06/2013

**Promoting a healthy environment.**

## 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

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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.

OK 16904  
\$100.00

2101548-P

Date: November 22, 2013  
Operator's Well \_\_\_\_\_  
Well No. 157121 W. Jones Heirs #2  
API Well No.: 47 021 - 01548

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 X Liquid Injection \_\_\_\_\_ Waste Disposal: \_\_\_\_\_  
If Gas, Production \_\_\_\_\_ X Or Underground storage \_\_\_\_\_ Deep \_\_\_\_\_ Shallow X

5) Elevation: 1227' Watershed: Little Ellis Creek  
Location: Glennville 03 County: Gilmer 21 Quadrangle: Gilmer 7.5' 365  
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 Bryan Harris  
Name: P.O. Box 157  
Address: Volga, WV 26238

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.**

RECEIVED  
Office of Oil and Gas

DEC 05 2013

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 Bryan Harris Date 12-4-13

## PLUGGING PROGNOSIS -Weston

**W. Jones Heirs #2 (157121)**

GILMER, COUNTY, WEST VIRGINIA  
 API # 47-021-01548  
 Burnsville Quad

ELEVATION: 1076'

BY: Craig Duckworth

DATE: 9/13/13

**CURRENT STATUS:**

10" csg @ 230'  
 8 1/4" csg @ 958'  
 4 1/2" csg @ 2482' (70 sks cement)

**TD @ 2482'**

Fresh Water @ None Reported

Salt Water @ None reported

1<sup>st</sup> Salt Sand @ Estimated @ 1416'

Coal @ None reported

Gas shows @ Lime 2219', Lime 2376' &amp; Sand 2400'

Oil Shows @ Lime 2376'

Stimulation: Fractured

1. Notify State Inspector, **Bryan Harris 304-553-6087**, 24 hrs. Prior to commencing operations.
2. TIH w/ tbg @ 2480'; Set 300' C1A Cement Plug @ 2480' to 2180' ( gas show@ 2400 ,2376' & 2219 oil show @2376')
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 @ 1416'; Set 100' C1A Cement Plug @ 1416' to 1316'(Salt Sand @ 1416')
6. TOOH w/ tbg @ 1316; gel hole @ 1316' to 1008'.
7. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 8 1/4" cut. Do not omit any plugs.
8. TOOH w/ tbg @ 1008'; Set 100' C1A Cement Plug @ 1008' to 908' (8 1/4" @ 958')
9. TOOH w/ tbg @ 908'; gel hole @ 908' to 280'
10. TIH w/ tbg @ 280'; Set 280' C1A Cement Plug @ 280' to Surface (10" @ 230')
11. Top off as needed
12. Set Monument to WV-DEP Specifications
13. Reclaim Location & Road to WV-DEP Specifications

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 Office of Oil and Gas

NOV 25 2013

WV Department of  
 Environmental Protection

2101548P



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

Rotary   
Spudder   
Cable Tools   
Storage

Quadrangle Burnsville  
Permit No. GIL-1548

WELL RECORD

Oil or Gas Well Oil & Gas

Company Petroleum Promotions, Inc.  
Address Box 105 - Weston, West Virginia  
Farm Walter Jonas Heirs Acres 47  
Location (waters) Little Ellis  
Well No. 2 Elev. 1076  
District Glenville County Gilmer  
The surface of tract is owned in fee by Walter Jonas Heirs  
Address \_\_\_\_\_  
Mineral rights are owned by \_\_\_\_\_  
Address \_\_\_\_\_  
Drilling commenced August 19, 1963  
Drilling completed September 21, 1963  
Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_  
Open Flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
\_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch  
Sum 130 MCF \_\_\_\_\_ Cu. Ft.  
Rock Pressure 770 lbs. \_\_\_\_\_ hrs.  
Oil Show \_\_\_\_\_ bbls. 1st 24 hrs.

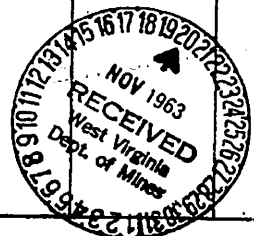
Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
18			
12	23.5	23.5	
8	230	230	Size of
6 1/2	958	958	
4 1/2	2482	2482	Depth set
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

WELL ACIDIZED \_\_\_\_\_  
WELL FRACTURED 30,000 gals. Treated Water + 33,000 Lbs. Sand

CASING CEMENTED 4 1/2" SIZE 2476 No. FC 9/22/63 Date  
70 sks. cement + 10 sks. Agajell  
COAL WAS ENCOUNTERED AT \_\_\_\_\_ Lawson Cementing  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

RESULT AFTER TREATMENT 10 MMCF  
ROCK PRESSURE AFTER TREATMENT \_\_\_\_\_  
Fresh Water \_\_\_\_\_ Feet Salt Water \_\_\_\_\_ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Clay			0	10			
Sand			10	60			
Shale & Shells			60	70			
Lime			70	95			
Sand			95	128			
Red Rock			128	170			
Sand			170	180			
Red Rock			180	265			
Lime, sandy			265	280			
Sand, shaley			280	315			
Red Rock			315	350			
Lime			350	360			
Shale & Shells			360	505			
Slate			505	540			
Sand			540	555			
Shale & Shells			555	606			
Sand & Shale			606	610			
Shale			610	632			
Shale & Shells			632	700			
Red Rock			700	728			
Shale & Shells			728	746			
Lime			756	758			
Shale			758	772			
Red Rock, shale & shells			772	910			
Lime			910	930			
Slate & Lime shells			930	964			
Shale			964	977			
Rock, shale & shells			977	1055			
Lime, sandy			1055	1065			
Shale, sandy			1065	1072			



GIL-1548

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime			1072	0098			
Slate & shells			1098	1359			
Sand			1359	1372			
Shale & Shells			1372	1396			
Lime, sandy			1396	1430			
Slate			1430	1450			
Sand			1450	1518			
Slate & Shells			1518	1562			
Slate & Shells			1562	1583			
Slate, sand			1583	1600			
Lime, sandy			1600	1612			
Slate & shells			1612	1665			
Lime, sandy			1665	1690			
Slate & Shells			1690	1782			
Lime & Sand			1782	1805			
Sand			1805	1825			
Lime & Sand			1825	1834			
Sand			1834	1878			
Slate & sand			1878	1977			
Sand			1977	1994			
Slate & Shells			1994	2065			
Slate & Sand			2065	2074			
Sand			2074	2105			
Shale, sandy			2105	2111			
Slate & Lime			2111	2115			
Lime			2115	2128			
Red Rock & slate			2128	2140			
Slate & Lime			2140	2153			
Lime			2153	2179			
Lime, sandy			2179	2205			
Lime			2205	2320			
Sand			2420	2482			
Total Depth			2482				

Gas @ 2219'  
 Gas (Odor of oil) @ 2376;  
 Gas @ 2376' increase @ 2400'

RECEIVED

Date November 17, 1963

APPROVED Petroleum Promotions, Inc. Owner



By Jerry Mason  
 (Title) Sept.



2101548P

WW-4-A  
Revised 6/07

1) Date: November 22, 2013  
2) Operator's Well Number  
157121 W. Jones Heirs #2  
3) API Well No.: 47 021 - 01548  
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 Robert R & Judith L. Jones Et Al ✓  
Address P.O. Box 1  
Sand Fork, WV 26430  
(b) Name Karen Beth Jones ✓  
Address 701 Regency Dr.  
Charleston, WV 25314  
(c) Name see attached sheet ✓  
Address \_\_\_\_\_  
6) Inspector Bryan Harris ✓  
Address P.O. Box 157  
Volga, WV 26238  
Telephone 304-553-6087

5) (a) Coal Operator:  
Name None  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Robert R & Judith L. Jones ✓  
Address P.O. Box 1  
Sand Fork, WV 26430  
Name Karen Beth Jones ✓  
Address 701 Regency Dr.  
Charleston, WV 25314  
(see attached sheet) ✓  
(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 22 day of November, 2013  
Kathy M. Kugel Notary Public  
My Commission Expires: 8-24-2022

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 [privacy@dep.gov](mailto:privacy@dep.gov)





WW2-A

**Additional Surface Owners:**

✓ Rita Annie Jones et al ✓  
C/O Rosalee Cantrell  
303 Oxford Dr.  
Glen Burnie, MD 21061

✓ Gilbert Jones ✓  
C/O Alcia J. Thomas  
269 Tyler Hwy  
Sistersville, WV 26175

✓ Betty Bryson ✓  
C/O Herbert Bryson  
2783 Otter Creek Rd.  
Lasalle, MI 48145

✓ Mary Lee McPherson ✓  
P.O. Box 221  
Glenville, WV 26351

**Additional Coal Owners:**

✓ Rita Annie Jones et al ✓  
C/O Rosalee Cantrell  
303 Oxford Dr.  
Glen Burnie, MD 21061

✓ Gilbert Jones ✓  
C/O Alcia J. Thomas  
269 Tyler Hwy  
Sistersville, WV 26175

✓ Betty Bryson ✓  
C/O Herbert Bryson  
2783 Otter Creek Rd.  
Lasalle, MI 48145

✓ Mary Lee McPherson ✓  
P.O. Box 221  
Glenville, WV 26351

**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: Little Ellis Creek Quadrangle: Gilmer 7.5'  
Elevation: 1227' County: Gilmer District: Glenville

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.? 30 ml

Proposed Disposal Method for Treated Pit Wastes:  
X 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 22 day of November, 2013

*Kathy M. Kugel*  
My Commission Expires 8-24-2022

Notary Public  
  
OFFICIAL SEAL  
STATE OF WEST VIRGINIA  
NOTARY PUBLIC  
Kathy M Kugel  
PO Box 109  
Davis, WV 26260  
My Commission Expires August 24, 2022

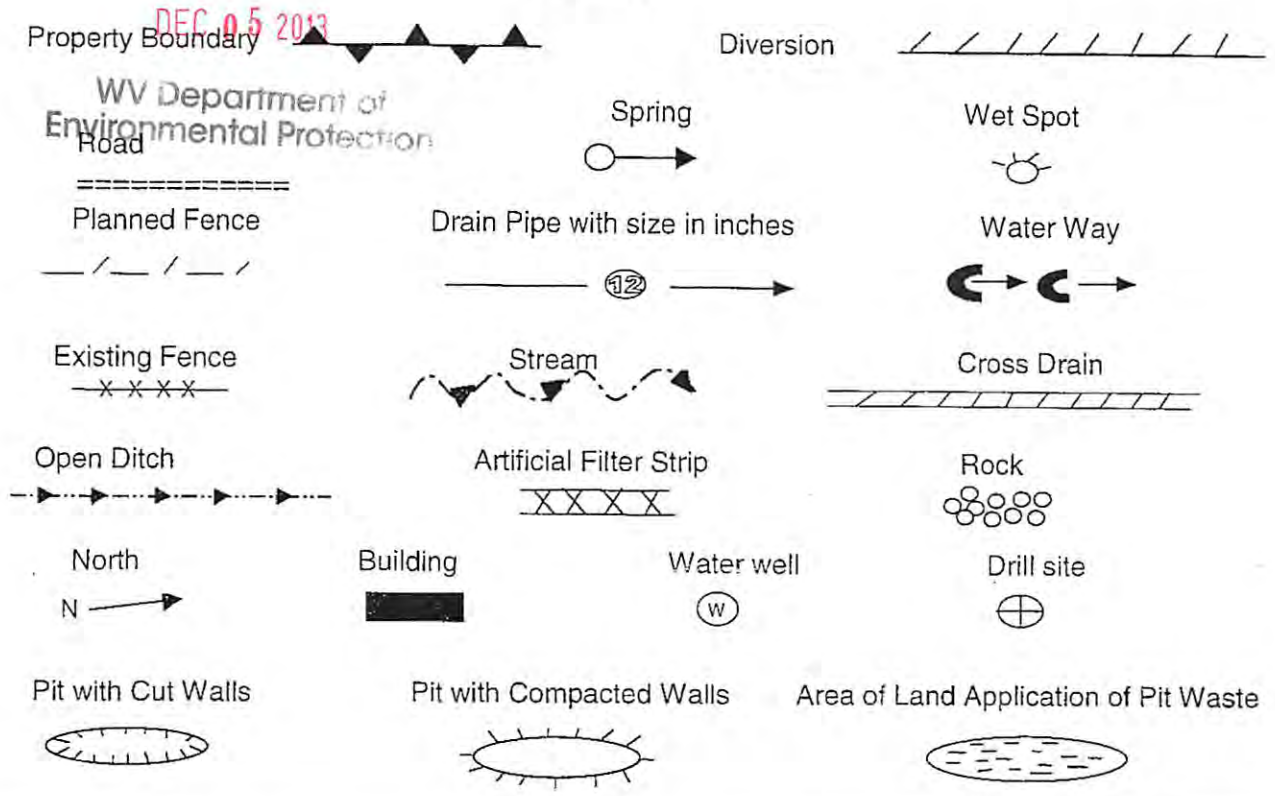
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NOV 25 2013

2101548 P

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Office of Oil and Gas

OPERATOR'S WELL NO.:  
157121 W. Jones Heirs #2

### LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH 5.8

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
KY-31	40	Orchard Grass	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: *Wayne Heirs*

Comments: *Oil & Gas Inspector*

Title: \_\_\_\_\_ Date: 12-4-13

Field Reviewed?  Yes  No

Topo Quad: Gilmer 7.5'

Scale: 1" = 2000'

County: Gilmer

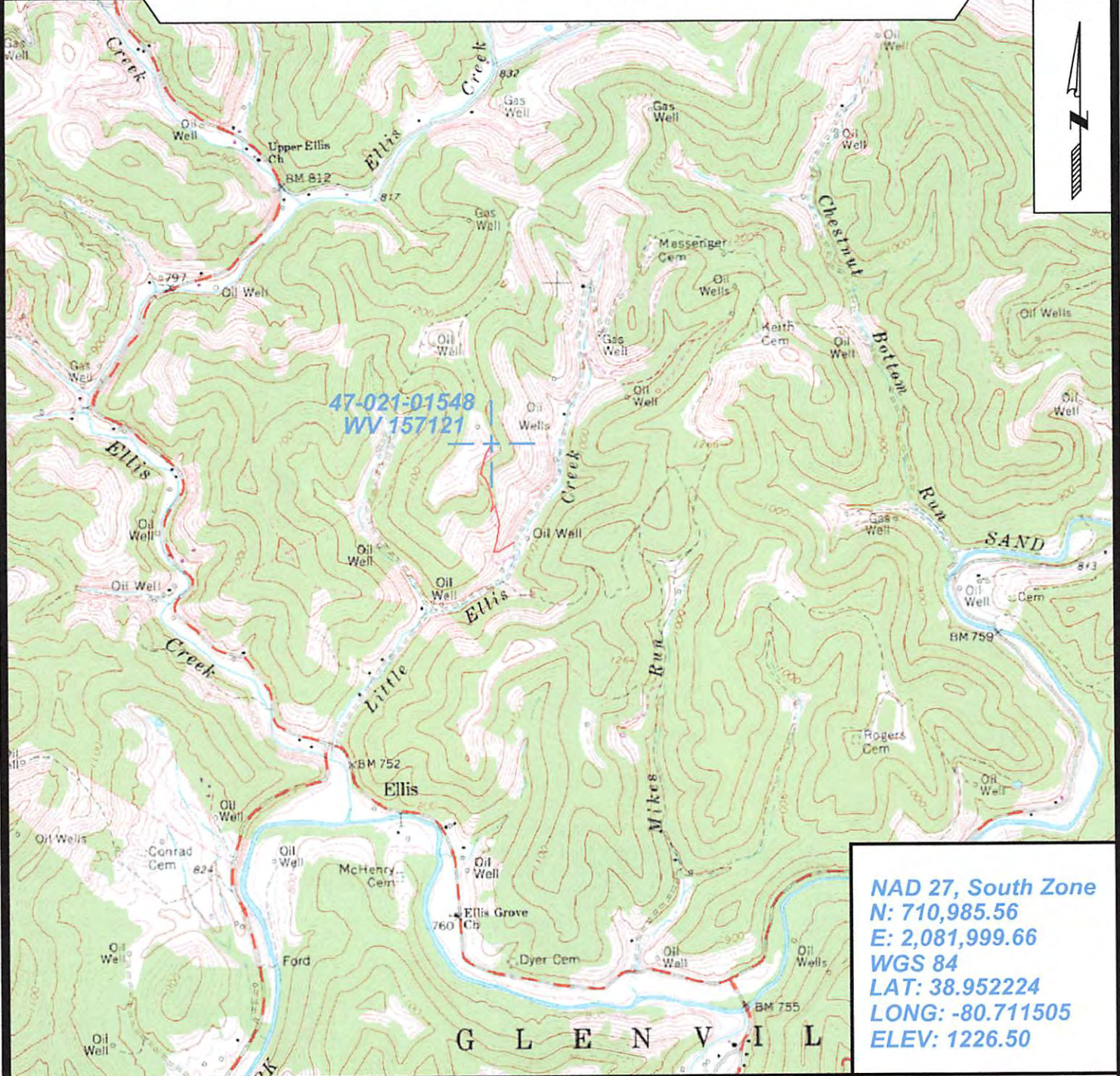
Date: October 17, 2013

District: Glenville

Project No: 25-19-00-07

**47-021-01548 WV 157121 (W. Jones Heirs #2)**

Topo



NAD 27, South Zone  
 N: 710,985.56  
 E: 2,081,999.66  
 WGS 84  
 LAT: 38.952224  
 LONG: -80.711505  
 ELEV: 1226.50



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
 1-800-482-8606  
 P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 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: 47-021-01548 WELL NO.: WV 157121 (W. Jones Heirs #2)

FARM NAME: Jones

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Gilmer DISTRICT: Glenville

QUADRANGLE: Gilmer 7.5'

SURFACE OWNER: Gilbert Jones c/o Alicia J. Thomas

ROYALTY OWNER: Betty Bryson, et al.

UTM GPS NORTHING: 4311514

UTM GPS EASTING: 524998 GPS ELEVATION: 374 m (1227 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.

Signature *[Handwritten Signature]*  
Date 11/4/13

PS # 2180  
Title

2101548 P



## POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY

LEASE NAME AND WELL No. W. Jones Heirs #2 WV 157121 (47-021-01548)

### POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 157121.

**BIRCH RIVER OFFICE**  
P.O. Box 438 • 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

**CALDWELL OFFICE**  
212 Cumberland Street  
Caldwell, OH 43724  
*phone:* 740-305-5007  
*fax:* 740-305-5126

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

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Office of Oil and Gas  
WV Department of  
Environmental Protection

Topo Quad: Gilmer 7.5'

Scale: 1" = 2000'

County: Gilmer

Date: October 17, 2013

District: Glenville

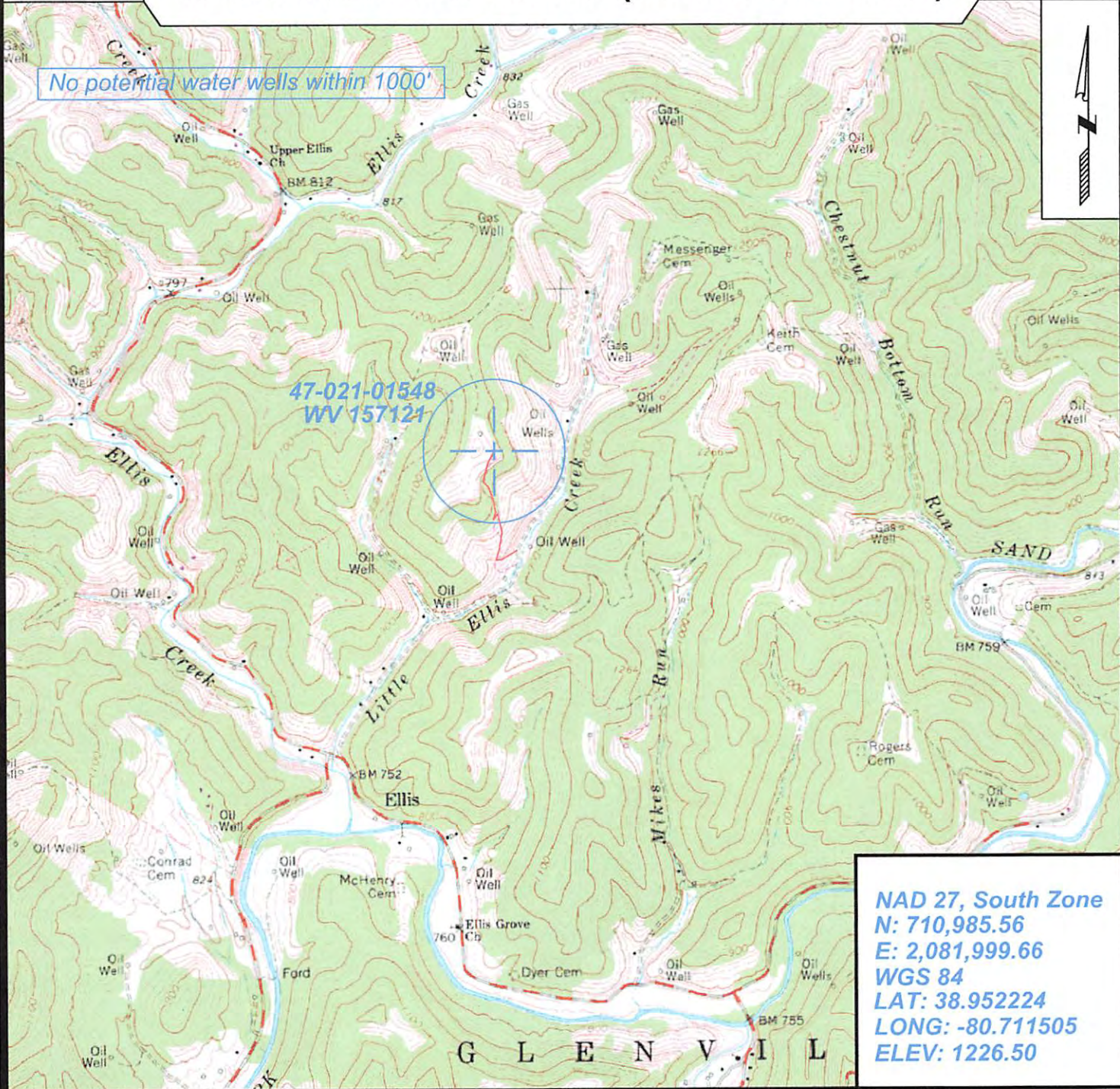
Project No: 25-19-00-07

Water

### 47-021-01548 WV 157121 (W. Jones Heirs #2)

No potential water wells within 1000'

47-021-01548  
WV 157121



NAD 27, South Zone  
N: 710,985.56  
E: 2,081,999.66  
WGS 84  
LAT: 38.952224  
LONG: -80.711505  
ELEV: 1226.50



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