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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, May 7, 2018

WELL WORK PLUGGING PERMIT  
Horizontal 6A Plugging

EQT PRODUCTION COMPANY  
625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for 511401  
47-103-02806-00-00

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: 511401  
Farm Name: NANCY & JOHN FOUT, ET AI  
U.S. WELL NUMBER: 47-103-02806-00-00  
Horizontal 6A Plugging  
Date Issued: 5/7/2018

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## 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.

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### 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.

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

Date: January 15, 2018  
Operator's Well  
Well No. 511401  
API Well No.: 47 103 - 02806

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 Disposa \_\_\_\_\_  
If Gas, Production \_\_\_\_\_ X Or Underground storage \_\_\_\_\_ Deep \_\_\_\_\_ Shallow X

5) Elevation: 926 Watershed: Sheep Run  
Location: Grant County: Wetzel Quadrangle: Big Run  
District: \_\_\_\_\_

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

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

8) Oil & Gas Derek Haught  
Name: PO Box 85  
Address: Smithville WV 26178

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 \_\_\_\_\_

Date 4-30-18

511401  
 Wetzel Co., WV  
 HZ Marcellus well  
 API # 47-103-02806  
 BY:  
 DATE: 11/6/17

**CURRENT STATUS:**

26" conductor @ 42'  
 13 3/8" casing @ 370' Cemented to Surface  
 9 5/8" casing @ 2,910' Cemented to Surface  
 5 1/2" casing @ 10,496' Measured depth - Est TOC @ 3,010'  
 Casing Patch:  
 1: 2,819' to 2,826'  
 2: 2,860' to 2,895'  
 1<sup>st</sup> Composite BP @ 7,468'  
 2<sup>nd</sup> Composite BP @ 7,450'  
 Cement Plug: 6,810' to 7,229' ETOC @ 6,810' 3<sup>rd</sup> Composite BP @ 5,426'  
 Cement Plug: 5,088' to 5,426' TOC @ 4,903'

Coal @ 178', 538', 643', 1,153', 1,503', 1,526'  
 Fresh Water @ 282'  
 Salt Water @ 1,900'  
 Gas Shows @ None Reported  
 Stimulation - See below

DMH  
 4-20-18

Stimulation Stage	Start Date	End Date	Pressure (psi)	Flow Rate (gpm)	Flow Rate (mcf/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)	Flow Rate (bbl/d)
1	9/23/2013 17:07	9/23/2013 21:10	6,640	7,990	6,540	6,740	1.15	101	95						9,626.01
2	9/23/2013 21:50	9/24/2013 02:07	6,670	8,170	6,700	6,760	1.12	101	91						9,581.02
3	9/24/2013 06:01	9/24/2013 08:18	6,870	8,180	6,840	6,910	1.18	96	91						9,486.94
4	9/24/2013 12:40	9/24/2013 14:44	7,200	8,170	6,940	6,920	1.15	101	97						9,378.03
5	9/24/2013 19:40	9/24/2013 21:59	7,540	8,100	6,980	6,980	1.16	97	89						9,183.70
6	9/25/2013 02:08	9/25/2013 04:18	8,300	8,020	9,000	8,840	0.96	101	94						9,118.01
6															1,386.34

Last reported 5 1/2" pressure is 1350 psi.

5.5" 20# P-110 Casing is set in slips with 80k in a 13 3/8" wellhead with a 13 5/8" 5M Flange.

1. Notify Inspector Derek Haught, 304-206-7613 about moving on well 48 hrs in advance.
2. Check pressure on all casings.
3. Bleed off pressure to tank on 5 1/2" casing and 9 5/8" casing. (Call Cactus to be on-site)
4. Nipple up Lubricator.
5. Hook pump up, load 5 1/2" casing and 9 5/8" casing with fresh water or 6% gel to kill any gas that may be present.
6. TIH with tubing to load the well with 6% gel.
7. TOOH with tubing.
8. Run a CBL.
9. N/D Lubricator.
10. Prepare to remove 5 1/2" casing slips from the wellhead. The slips are set in tension with 80k-lbs. Casing jacks may be needed to remove the casing and slips from the wellhead.
11. P/U 5 1/2" Casing and remove slips, slack back off with casing once slips are removed.
12. N/U on wellhead with Well Control system to prepare to shoot off casing.
13. Free point 5 1/2" casing, cut @ free point estimated @ 3,010', TOOH with 5 1/2" casing.
14. TIH with tubing to 3,010' or cut off point and set 410' CLA cement plug from 3,010' to 2,700'. TOOH with tubing and let cement cure. This plug will cover the 5.5" stub and casing patches.
15. Check TD of cement top, if cement top is at planned depth proceed to next step. If cement top has fallen, reset cement plug to planned depth.

**47 103 02806**

16. TIH with tubing to 1,600', set 600' CLA cement plug from 1,600' to 1000' to cover the coal shows. TOOH with tubing and let cement cure.
17. TIH with tubing to 850', set 850' CLA cement plug from 850' to Surface. TOOH with tubing and let cement cure.
18. Check TD of cement top, if cement top is at surface, top well off and set Plugging monument to WV DEP specification.

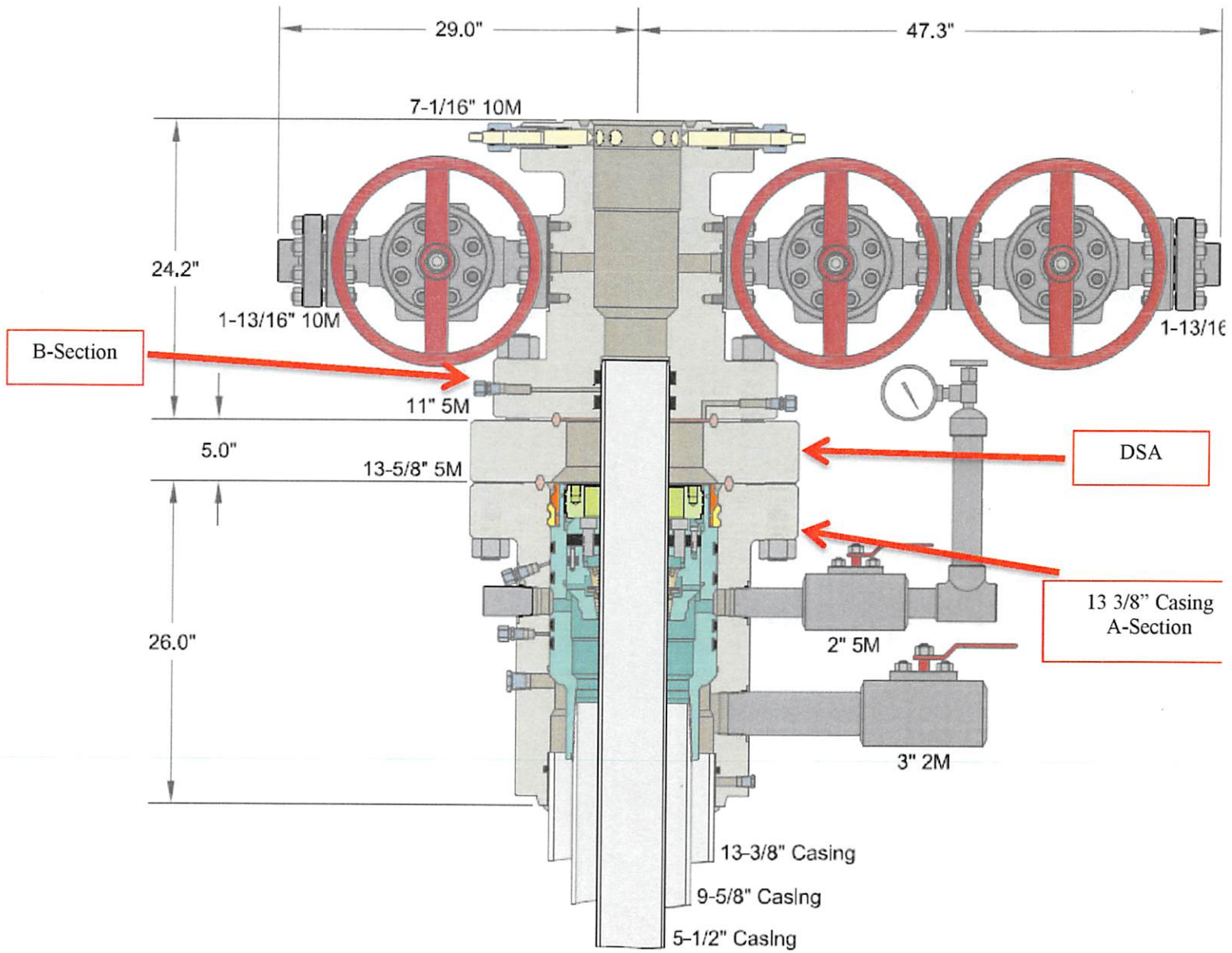
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**WV Department of  
Environmental Protection**

**Wellhead**

**05/11/2018**



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WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 9/3/2013  
API #: 47-103-02806

**47 103 02806**

Farm name: Nancy & John Font, et al Operator Well No.: 511401

LOCATION: Elevation: 924' Quadrangle: Big Run

District: Grant County: Wetzel  
Latitude: 426 Feet South of 39 Deg. 35 Min. 00 Sec.  
Longitude 10,024 Feet West of 80 Deg. 35 Min. 00 Sec.

Company: EQT Production Company

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
EQT Plaza, Suite 1700				
625 Liberty Avenue, Pittsburgh, PA 15222	26	42	42	60
Agent: Cecil Ray	13 3/8	370	370	464
Inspector: Derek Haught	9 5/8	2,910	2,910	2,503
Date Permit Issued: 8/17/2012	5 1/2	10,496	10,496	1,563
Date Well Work Commenced: 10/10/2012				
Date Well Work Completed: 1/12/2013				
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 6,960'				
Total Measured Depth (ft): 10,516'				
Fresh Water Depth (ft.): 282'				
Salt Water Depth (ft.): 1,900'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 178', 538', 643', 1,153', 1,503', 1,526'				
Void(s) encountered (N/Y) Depth(s) No				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 6,937  
Gas: Initial open flow 4,080 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 1,296 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 16 Hours  
Static rock Pressure 1,216 psig (surface pressure) after 280.5 Hours

Second producing formation No second formation. Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments 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.

\_\_\_\_\_  
Signature Date

05/11/2018

4710302806

Were core samples taken? Yes \_\_\_\_\_ No X

Were cuttings caught during drilling? Yes X No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list MWD Gamma, CBL, and Geophysical logs

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

Perforated Intervals, Fracturing, or Stimulating:

**See Attachment**

Lost pressure during stage 6. Will return for remedial work. Flowed back well for 16 hours with gas flow and all plugs still in hole. Flowed well to GB for long time (280.5 hours) to monitor well.

Plug Back Details Including Plug Type and Depth(s): **See Attachment**

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth  
Surface:

Sand/shale / 0 / 178 / 178 -- Coal / 178 / 181 / 3 --

Sand/shale / 181 / 538 / 357 -- Coal / 538 / 540 / 2 -- Sand/shale / 540 / 643 / 103 --

Coal / 643 / 646 / 3 -- Sand/shale / 646 / 1,153 / 507 -- Coal / 1,153 / 1,155 / 2 --

Sand/shale / 1,155 / 1,503 / 348 -- Coal / 1,503 / 1,505 / 2 -- Sand/shale / 1,505 / 1,526 / 21 --

Coal / 1,526 / 1,532 / 6 -- Sand/shale / 1,532 / 1,773 / 241 -- MAXTON / 1,773 / 1,889 / 116 --

BIG LIME / 1,889 / 2,271 / 382 -- WEIR / 2,271 / 2,445 / 174 -- GANTZ / 2,445 / 2,596 / 151 --

50F / 2,596 / 2,667 / 71 -- 30F / 2,667 / 2,714 / 47 -- GORDON / 2,714 / 2,801 / 87 --

4TH / 2,801 / 2,853 / 52 -- BAYARD / 2,853 / 3,386 / 533 -- WARREN / 3,386 / 3,532 / 146 --

SPEECHLEY / 3,532 / 3,900 / 368 -- BALLTOWN A / 3,900 / 4,354 / 454 -- RILEY / 4,354 / 5,011 / 657 --

BENSON / 5,011 / 5,367 / 356 -- ALEXANDER / 5,367 / 6,379 / 1,012 -- RHINESTREET / 6,379 / 6,516 / 137 --

SONYEA / 6,516 / 6,685 / 169 -- MIDDLESEX / 6,685 / 6,722 / 37 -- GENESSEE / 6,722 / 6,729 / 7 --

GENESEO / 6,729 / 6,828 / 99 -- TULLY / 6,828 / 6,853 / 25 -- HAMILTON / 6,853 / 6,937 / 84 --

MARCELLUS / 6,937 / 6,960 / 23 --

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**511401 47-103-02806-0000 - Stimulated Stages**

<b>Stage Number</b>	<b>Stimulation Date</b>	<b>Ave Pump Rate (BPM)</b>	<b>Ave Treatment Pressure (PSI)</b>	<b>Max Breakdown Pressure (PSI)</b>	<b>ISIP (PSI)</b>	<b>Amount of Proppant (lbs)</b>	<b>Amount of Water (bbls)</b>	<b>Amount of Nitrogen/other (units)</b>
1	9/23/2013	95	7,999	8,641	5,243	4014	10,085	0
2	9/23/2013	91	8,170	8,704	4,769	3972	9,823	0
3	9/24/2013	91	8,167	8,841	5,013	3995	9,708	0
4	9/24/2013	97	8,175	8,543	4,982	4009	9,602	0
5	9/24/2013	89	8,100	8,666	5,056	3973	9,386	0
6	9/25/2013	94	8,082	9,005	3,640	3990	10,512	0

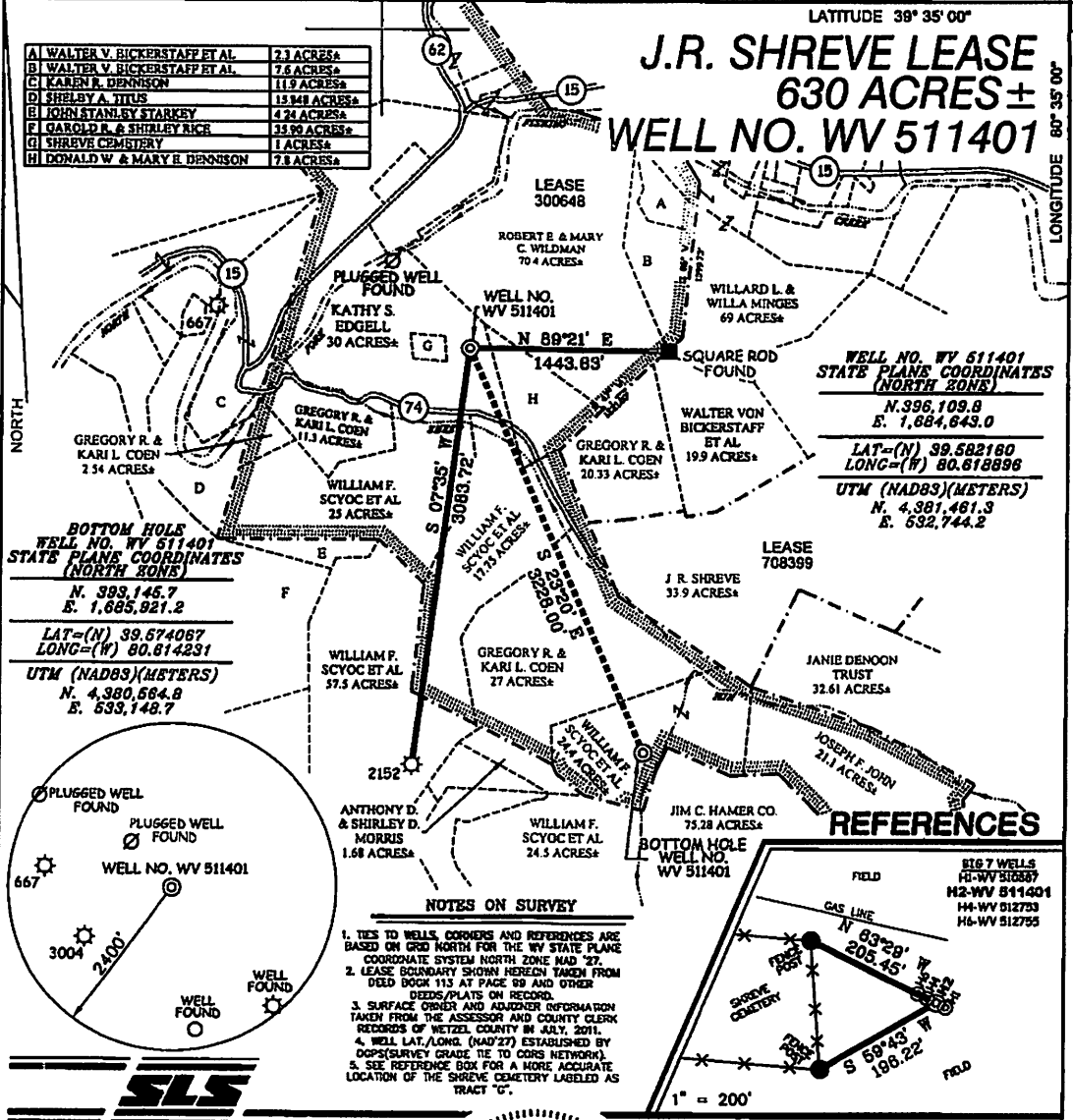
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9/25/2013	HAL - C RIH for stg 7. HES WL reports difficulty proceeding through the patch area @ 2,836'-2,876'; could not proceed past 4,429.5' (plug depth) due to obstruction causing line tension to drop below 300lb. HES WL set down at 2853' which slid through on its own. 2953' WL stopped - POOH to 2773', RIH to 2870' WL stopped, POOH to 2770', RIH to 2894 WL stopped, POOH to 2770', RIH 2875' WL stopped, POOH to 2770' with 1600lbs line tension. RIH to 5046' WL stopped, POOH 4750', RIH to 5095' WL stopped. Called Bill Weser and instructed to POOH sweep the well and run a collar log. WL RIH w/ CCL and BHA did not pass 7,310'; POOH & RDMO; w/o remedial work.
10/10/2013	Basic MORU SU & WOU; verified hanger not in hole. Test BOPs. Inject heated fluid.
10/11/2013	Basic SIH to 7,626' (246 jts) w/ heated fluid to address hydrate issues; circ bottoms up; POOH; No abnormalities in weight or indication of tag of casing patch @ 2,618'-2,895'.
10/12/2013	Basic SIH set magnum bridge plug @ 7,468'; circ bottoms up; POOH; No abnormalities in weight or indication of tag of casing patch @ 2,818'-2,895'.
10/13/2013	Basic SIH set 2nd magnum bridge plug @ 7,450'; POOH; FB @ 1,700 psi 24/64 choke thru gas buster to flare; 7 bbls condensate; SI:SICP 2,200 psi; RDMO to 512753.
10/14/2013	w/o FB ops
10/15/2013	FMC FB well to sales 900psi / 720 mcf / 11 bbls - hr H2O / 0 bbls condensate / 15.5 hrs total FB time.
10/16/2013	FMC shut well in. Casing pressure = 1824 psi.
10/17/2013	FMC FB to GB; 140 psi / 63.5 hrs total FB time.
10/18/2013	FMC FB to GB; 44 psi / 86.5 hrs total FB time.
10/19/2013	FMC FB to GB; 33 psi / 111.5 hrs total FB time.
10/20/2013	FMC FB to GB; 8 psi / 135.5 hrs total FB time.
10/21/2013	FMC FB to GB- shut in well @ 04:00; 17 psi / 157.5 hrs total FB time. RD FMC and RU ROC.
10/22/2013	ROC FB to gas buster. Shut in @ 18:00 due to gas vapors on offset well.
10/28/2013 - 11/13/2013	Cont. monitoring casing pressures.
12/12/13 - 12/31/2013	ROC FB well.
1/1/2014	SI @ 14:45; ROC monitoring pressures.
1/2/2014	ROC monitoring pressures open to gas buster.
1/3/2014	ROC monitoring pressures open to gas buster.
1/4/2014	Basic RU WOU & SU; RIH w/ 128 jts; monitor SICP.
1/5/2014	Cont to RIH with work string; MIRU HES cement equipment; monitor SICP. Jt 233 IH. End of mule shoe @ 7,229'. Circulation finished. 277 bbls pumped. Hole loaded with 75.5 bbls of treated fluid.
1/6/2014	Halliburton preceded pumping down 2 7/8" PH-6 tubing with 50 bbls of heated fresh water ahead of cement @ temperature of 74 degrees & circulating back to gas buster tank. Shut down. 0 Psi on 5 1/2" casing. GVH/CS - 09:15 HRS - Halliburton mixed & pump 40 sxs of PlugCem - 14.2 ppg - 9.1 bbls - cement slurry - 410 ft @ 700 Psi to 1,180 Psi pump pressure. Displace 2 7/8" PH-6 tubing with 36 total bbls tubing displacement + one barrel over displacement + one barrel accounted for surface lines = total of 38 bbls pumped. Shut down pumping & drop to 75 Psi tubing pressure. Bleed off. Estimated top cement 6,810 ft. M/U - RIH w/CCL + weight bars + setting tool + Magnum Long Range Composite Bridge Plug for 5 1/2" 20 lbs/per/ft casing. Correlate marker joint @ 5,322 - 5,332 ft. Locate 5 1/2" casing collars @ 5,406 - 5,446 ft. Wireline weight 1,250 lbs. Set Magnum Long Range Composite Bridge Plug - top of plug @ 5,426 ft.; TOOH and open well to GB.
1/7/2014	RIH to 5404' 22' above bridge plug and circ w/ 206 bbls of fresh water. Halliburton mixed & pump 30 sxs of PlugCem - 14.2 ppg - 7.0 bbls - cement slurry - 316 ft @ 928 Psi to 1,230 Psi pump pressure - 3.7 bpm. Displace 2 7/8" PH-6 tubing with 27 total bbls tubing displacement + one barrel over displacement + one barrel accounted for surface lines = total of 29 bbls pumped. Shut down pumping & drop to 90 Psi tubing pressure. Bleed off. Cement in place @ 17:00 hrs. Estimated top cement 5,088 ft. POOH slowly & L/D 27 jts of 2 7/8" PH-6 Tubing to Jt #147 - (4,571 ft) P/U weight 39,000 #'s. (517 ft) above the top of cement slurry plug in 5 1/2" casing. Halliburton start circulation of 175 bbls for double surface to surface circulation with 2.5 gallons of Micro- Matrix retarder to clear any cement from tubing and the hole. Pump rate 3.5 bpm @ 1,100 to 1,200 Psi pump pressure with 500 Psi back pressure on manifold. Divert circulation returns to rig tank after 60 bbls. No cement was recovered in the returns. Rig down Halliburton. POOH & L/D 173 jts of 2 7/8" PH-6 Tubing + 2 7/8" PH-6 - R/N nipple + One joint of 2 7/8" PH-6 tubing + 2 - 2.88" OD - TTS snubbing back pressure valves + 2 7/8" PH-6 Energy mule shoe pup joint. Total of 174 jts. Loaded hole while POOH with 37 bbls of 9.2 ppg saltwater to displace the steel that was POOH. No snubbing operations was required POOH. 0 psi on 5 1/2" casing. 0 Psi on 9 5/8" surface casing.
1/8/2014	Basic and ROC RDMO.

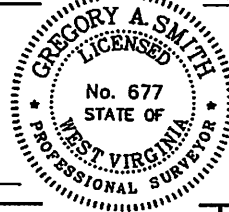
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4710302806



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JUNE 13, 20 12  
OPERATORS WELL NO. WV 511401  
API WELL NO. 47-103-02806H6A  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 6246P511401RAF (286-77)  
PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 1000'

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

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 928.5 (GROUND) 927 (PROPOSED) WATERSHED SHEEP RUN AND NORTH FORK FISHING CREEK  
DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5'  
SURFACE OWNER KATHY S. EDGELL ACREAGE 30±  
ROYALTY OWNER NANCY & JOHN FOUT ET AL ACREAGE 630±  
PROPOSED WORK: LEASE NO. 300648  
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG   
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION MARCELLUS  
ESTIMATED DEPTH \_\_\_\_\_

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY  
ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVENUE  
CHARLESTON, WV 25302 CHARLESTON, WV 25302

WV Department of Environmental Protection  
APR 23 2018  
05/11/2018

4710302806P

- 1) Date: January 15, 2018
- 2) Operator's Well Number  
511401
- 3) API Well No.: 47 103 - 02806  
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**

<p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Gregory R Coen</u> Address <u>4496 North Fork Rd.</u> <u>Pine Grove WV 26419</u></p> <p>(b) Name <u>Donald Lee Dennison</u> Address <u>6617 North Fork Rd.</u> <u>Pine Grove WV 26419</u></p> <p>(c) Name <u>Freda D Blake</u> Address <u>HC 62 Box 48</u> <u>Pine Grove WV 26419</u></p> <p>6) Inspector <u>Derek Haught</u> Address <u>PO Box 85</u> <u>Smithville WV 26178</u> Telephone <u>304-206-7613</u></p>	<p>5) (a) Coal Operator: Name <u>None</u> Address _____</p> <p>(b) Coal Owner(s) with Declaration Name <u>Researve Coal Properties Company Etal.</u> <u>1000 Consol Energy Dr.</u> Address <u>Cannonsburg PA 15317</u></p> <p>(c) Coal Lessee with Declaration Name <u>None</u> Address _____</p>
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**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.

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Office of Oil and Gas  
APR 23 2018



Well Operator:  
By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_

EQT Production Company  
Erin Spine  
Regional Land Supervisor  
2200 Energy Drive  
Canonsburg PA 15317  
(304) 848-0035

Subscribed and sworn before me this 18 day of April, 2018  
Rebecca L Wanstreet Notary Public  
My Commission Expires: 4-7-2020

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 [deprivacyofficer@wv.gov](mailto:deprivacyofficer@wv.gov).

05/11/2018



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): Sheep Run Quadrangle: Big Run

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 \_\_\_ No X

If so, please describe anticipated pit waste:

Will a synthetic liner be used in the pit? Yes \_\_\_ No X Is 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 \_\_\_\_\_)
- X Reuse (at API Number -- Various \_\_\_\_\_)
- X Off Site Disposal Permit (Supply form WW-9 for disposal location. See attachment)
- \_\_\_\_\_ Other: (Explain \_\_\_\_\_)

*ANY WELL EFFLUENT WILL BE CONTAINED IN STEEL TANKS. gmm*  
*Don't 4-30-18*

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 :  
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.

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.

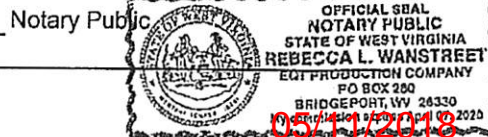
Company Official Signature *Erin Spine*

Company Official (Typed Name) Erin Spine

Company Official Title Regional Land Supervisor

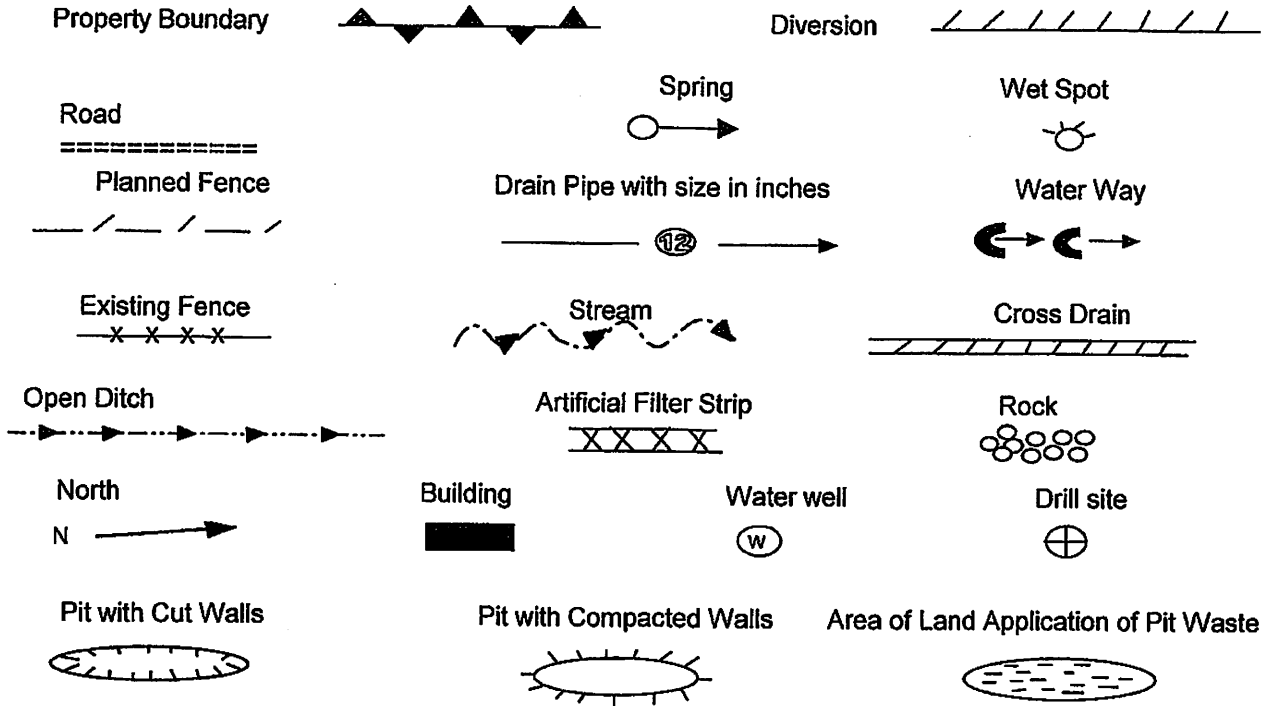
Subscribed and sworn before me this 18 day of April, 2018

Rebecca L Wanstreet  
My Commission Expires 4-7-2020



OPERATOR'S WELL NO.:  
511401

**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: Oil + Gas Lease Date: 4-30-18  
 Field Reviewed? Yes  No



Topo Quad: Big Run 7.5'

Scale: 1" = 2000' **47 103 02 806 P**

County: Wetzel

Date: November 15, 2017

District: Grant

Project No: 40-34-00-09

# 47-103-02806 WV 511401 (Big 7 H2)

Topo



**NAD 27, North Zone**  
**N:396108.00**  
**E:1684647.79**

**WGS 84**  
**LAT:39.582238**  
**LONG:-80.618693**  
**ELEV:914.93**

RECEIVED



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: Office of Oil and Gas  
**EQT Production Company**  
 APR 25 2018  
 P.O. Box 280  
 Bridgeport, WV 26330  
 WV Department of  
 Environmental Protection

05/11/2018



4710302806P



## POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY

LEASE NAME AND WELL No. Big 7 H2 - WV 511401 - API No. 47-103-02806

### POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 511401.

RECEIVED  
Office of Oil and Gas

APR 23 2018

WV Department of  
Environmental Protection

**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



Topo Quad: Big Run 7.5'

Scale: 1" = 2000'

47 103 02806 P

County: Wetzel

Date: November 15, 2017

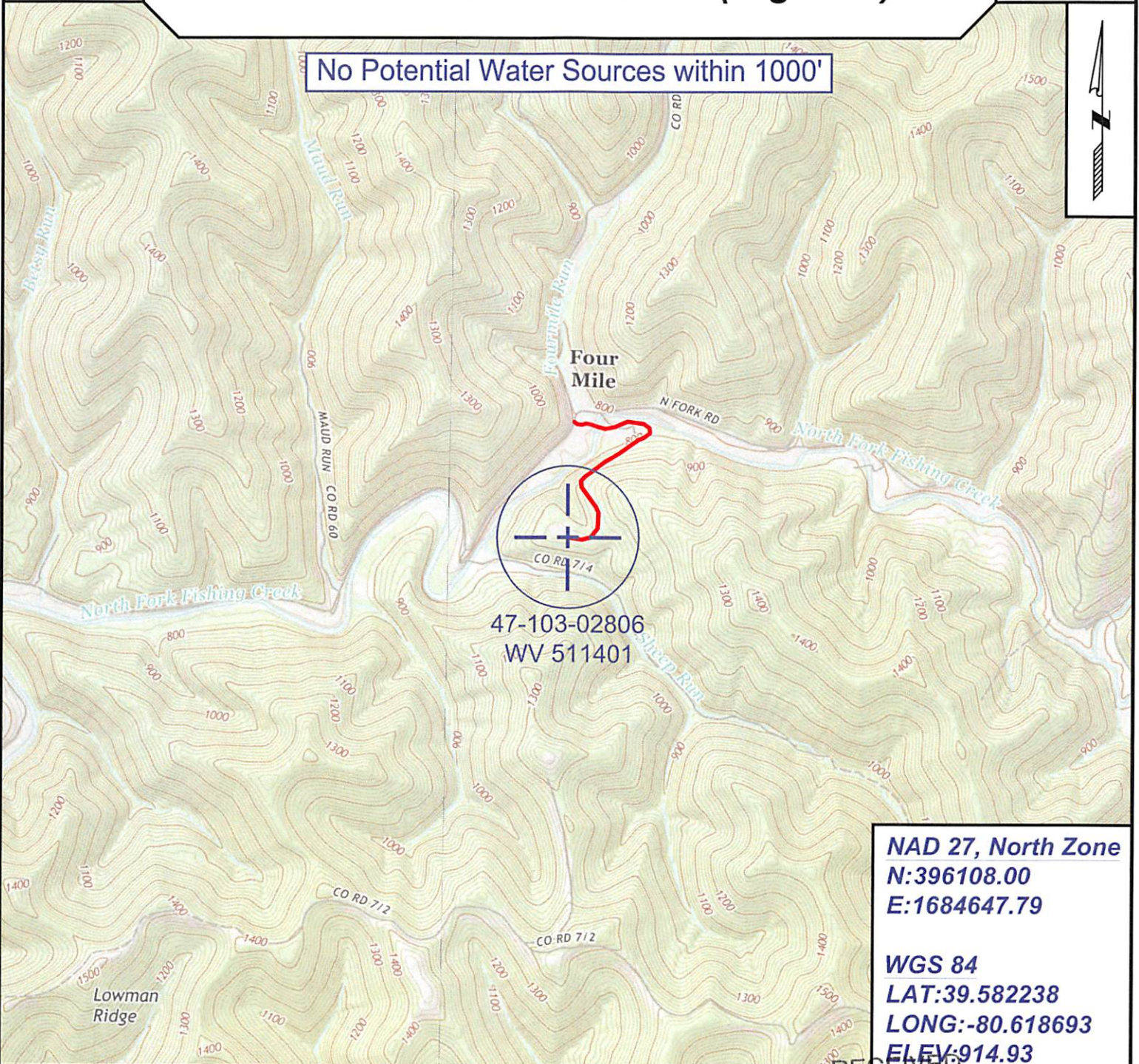
District: Grant

Project No: 40-34-00-09

Water

# 47-103-02806 WV 511401 (Big 7 H2)

No Potential Water Sources within 1000'



**NAD 27, North Zone**  
**N:396108.00**  
**E:1684647.79**

**WGS 84**  
**LAT:39.582238**  
**LONG:-80.618693**  
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PREPARED FOR:

Office of Oil and Gas  
**EQT Production Company**

APR 23 2018  
 P.O. Box 280  
 Bridgeport, WV 26330

WV Department of  
 Environmental Protection  
 05/11/2018





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

API: 47-103-02806 WELL NO.: WV 511401 (Big 7 H2)

FARM NAME: Nancy and John Fout, et al.

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Wetzel DISTRICT: Grant

QUADRANGLE: Big Run 7.5'

SURFACE OWNER: Gregory R. Coen

ROYALTY OWNER: Shiben Estates Inc., et al.

UTM GPS NORTHING: 4381461

UTM GPS EASTING: 532746 GPS ELEVATION: 279 m (915 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

PS# 2180  
Title

Office of Oil and Gas  
RECEIVED  
APR 23 2018  
WV Department of Environmental Protection  
11/28/17  
Date