



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

January 16, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8509653, 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: THOMAS 511013
Farm Name: MARKWITH, DENNIS
API Well Number: 47-8509653
Permit Type: Plugging
Date Issued: 01/16/2015

Promoting a healthy environment.

01/16/2015

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.

8509653P

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

Date: November 17, 2017
Operator's Well
Well No. 511013 (John P. Thomas #12)
API Well No.: 47 085 - 09653

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

CK # 18337
\$100⁰⁰

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: 1060 ft. Watershed: Bunnels Run of Middle Island Creek of Ohio River
Location: Clay 1 County: Ritchie Quadrangle: Pennsboro 539
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 David Cowan
Name: 1597 Devil Hole Road
Address: Harrisville, WV 26362-7543

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 11 2014

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 David Cowan Date 12-8-14

OK gmm
1/12/15

01/16/2015

Plugging Prognosis

(511013)

API # 47-085-09653

Ritchie Co,

Prepared by Doug Fry 9/30/2014

Current Status;

13" @ 19'

7" @ 1065' Cemented

4 1/2" @ 5385' Cemented

T.D. 5385'

FW @ None Reported Coal @ None Reported Salt Sand top @ ?

Elevation 1060'

Gas Shows @ odors of gas listed on Completion report no real shows, Oil Shows @ None Reported

4563' - 5181'

Completion; Fractured Alexander & Benson Perfs @ 4923' - 5190', Riley Perfs 3664' - 3720', Weir Perfs 2424' - 2439' KEENER/INMAN PERFS. 2020' - 2110'.

- 1) Notify State Inspector David Cowan @ (M) 304-389-3509, 24 hrs prior to commencing operations.
- 2) TOOH w/ 2" tubing @ ?' and check condition of tubing. GEL HOLE FROM TD TO 5190'
- 3) TIH w/ 2" tubing tallying pipe in, @ 5190', set 690' CIA cement plug @ 5190' to 4500'. (Alexander and Benson Perfs) & RILEY PERFS.
- 4) TOOH w/ tubing @ 4500', Gel Hole @ 4500' to 2450'
- 5) TOOH w/ tubing @ 3720', set 220' CIA cement plug @ 3720' to 3500'. (Riley Perfs)
- 6) TOOH w/ tubing @ 3500', Gel Hole @ 3500' to 2439'.
- 7) TOOH w/ tubing @ 2439', set 139' CIA cement plug @ 2439' to 2300'. (Weir Perfs).
- 8) TOOH w/ tubing @ 900', Gel Hole @ 900' to 805'.
 TOOH w/ 2" tubing, Free point 4 1/2" csg, Cut 4 1/2" csg @ free point, TOOH w/ 4 1/2" csg
 ← 5a) Set 100' CIA cement plug 50' In/Out of cut. Perf all Coal, Gas, Salt Sand top and Oil & FW shows below 4 1/2" cut do not omit any plugs shown below.
- 10) TIH w/ tubing @ 2300', Gel Hole @ 2300' to 1115'.
- 11) TOOH w/ tubing @ 1115', set 100' CIA cement plug @ 1115' to 1015'. (7" csg pt - Elevation).
- 12) TOOH w/ tubing @ 1015', Gel Hole @ 1015' to 500'.
- 13) TOOH w/ 2" tubing, Free point 7" csg, Cut 7" csg @ free point, TOOH w/ 7" csg
- 14) Set 100' CIA cement plug 50' In/Out of cut. Perf all Coal, Gas, Salt Sand top and Oil & FW shows below 4 1/2" cut do not omit any plugs shown below.
- 15) TIH w/ 2" tubing @ 500', set 100' CIA cement plug @ 500' to 400'. (Insurance plug).
- ** 16) TOOH w/ tubing @ 400', Gel Hole @ 400' to 200'.
- 17) TOOH w/ tubing @ 200', set 200' CIA cement plug @ 200' to Surface..
- 18) Top off as needed.
- 19) Set Monument to WV - DEP Specifications
- 20) Reclaim Location & Roads to WV-DEP Specifications.

- 4a SET A 500' CIA CEMENT PLUG FROM 2450' - 1950' WEIR & KEENER/INMAN PERFS.
- 5. TOOH w/ TUBING @ 1950', GEL HOLE @ 1950' TO 1100'.
- 5a. 6. SET 100' CIA CEMENT PLUG FROM 1100' - 1000'. (ELEVATION).
- 7. GEL HOLE FROM 1000' - 500', & SET 100' CIA CEMENT PLUG FROM 500' - 400'.
- ** CONTINUE TO 16).

Received
 Office of Oil & Gas
 NOV 20 2014
 (INSURANCE PLUG)

01/16/2015

7" CASING & 4 1/2" CASING APPEAR TO BE CEMENTED TO SURFACE, IF SO DO NOT PULL OR PERFORATE THESE CASINGS. QMM

Plugging Prognosis

(511013)

API # 47-085-09653

Ritchie Co,

Prepared by Doug Fry 9/30/2014

Current Status;

13" @ 19'

7" @ 1065' Cemented

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T.D. 5385'

RECEIVED
Office of Oil and Gas

DEC 11 2014

WV Department of
Environmental Protection

2014

FW @ None Reported Coal @ None Reported Salt Sand top @ ?

Elevation 1060'

Gas Shows @ odors of gas listed on Completion report no real shows Oil Shows @ None Reported

Completion; Fractured Alexander & Benson Perfs @ 4923' - 5190', Riley Perfs 3664' - 3720', Weir Perfs 2424' - 2439' TOP IS 4563'

- 1) Notify State Inspector David Cowan @ (M) 304 389-3509, 24 hrs prior to commencing operations.
- 2) TOOH w/ 2" tubing @ ?' and check condition of tubing. GEL FROM TD TO 5190'
- 3) TIH w/ 2" tubing tallying pipe in, @ 5190', set 440' CIA cement plug @ 5190' to 4923'. (Alexander and Benson Perfs) 4750'
- 4) TOOH w/ tubing @ 4923', Gel Hole @ 4923' to 3720'. 4570' 4570' - 4350' 4563'
- 5) TOOH w/ tubing @ 3720', set 220' CIA cement plug @ 3720' to 3500'. (Riley Perfs) 4750'
- 6) TOOH w/ tubing @ 3500', Gel Hole @ 3500' to 2439'. 4350' to 2439'
- 7) TOOH w/ tubing @ 2439', set 139' CIA cement plug @ 2439' to 2300'. (Weir Perfs).
- 8) TOOH w/ tubing @ 900', Gel Hole @ 900' to 805'.
- 9) TOOH w/ 2" tubing, Free point 4 1/2" csg, Cut 4 1/2" csg @ free point, TOOH w/ 4 1/2" csg Set 100' CIA cement plug 50' In/Out of cut. Perf all Coal, Gas, Salt Sand top and Oil & FW shows below 4 1/2" cut do not omit any plugs shown below.
- 10) TIH w/ tubing @ 2300', Gel Hole @ 2300' to 1115'.
- 11) TOOH w/ tubing @ 1115', set 100' CIA cement plug @ 1115' to 1015'. (7" csg pt - Elevation).
- 12) TOOH w/ tubing @ 1015', Gel Hole @ 1015' to 500'.
- 13) TOOH w/ 2" tubing, Free point 7" csg, Cut 7" csg @ free point, TOOH w/ 7" csg
- 14) Set 100' CIA cement plug 50' In/Out of cut. Perf all Coal, Gas, Salt Sand top and Oil & FW shows below 4 1/2" cut do not omit any plugs shown below.
- 15) TIH w/ 2" tubing @ 500', set 100' CIA cement plug @ 500' to 400'. (Insurance plug).
- 16) TOOH w/ tubing @ 400', Gel Hole @ 400' to 200'.
- 17) TOOH w/ tubing @ 200', set 200' CIA cement plug @ 200' to Surface.
- 18) Top off as needed.
- 19) Set Monument to WV - DEP Specifications
- 20) Reclaim Location & Roads to WV-DEP Specifications.

ALEXANDER - 5164' - 5246' (6a)

BENSON 4909' - 4964'

RILEY 4555' - 4847

KEENER/INSUR PERFS 2020' - 2110'

8509653P

Well Number 511013

Equitable Production Company
WR-35 Completion Report - Attachment
Well Treatment Summary

API # 4708509653

Stage 1		Stage 2		Stage 3	
Date	01/22/2008	Date	01/22/2008	Date	01/22/2008
Frac Typ	750 Foam	Frac Typ	750 Foam	Frac Typ	750 Foam
Zone	Riley/Benson/Alexander	Zone	Weir	Zone	Keener/Injun
# of Perfs	39	# of Perfs	34	# of Perfs	24
From/To	4,563- 5,181	From/To	2,386- 2,423	From/To	2,020- 2,110
BD Press	2,068	BD Press	2,512	BD Press	3,025
ATP Pst	3,605	ATP Pst	2,949	ATP Pst	3,250
Avg Rate	31	Avg Rate	40	Avg Rate	40
Max Press Pst	3,782	Max Press Pst	3,211	Max Press Pst	3,489
ISIP Pst	0	ISIP Pst	0	ISIP Pst	2,417
10min SIP	0 5 min.	10min SIP	0 5 min.	10min SIP	2,007 5 min.
Frac Gradient	0.00	Frac Gradient	0.00	Frac Gradient	1.32
Sand Proppant	304.59	Sand Proppant	366.40	Sand Proppant	520.09
Water-bbl	155.4	Water-bbl	133	Water-bbl	182
SCF N2	564,142	SCF N2	280,242	SCF N2	383,362
Acid-gal	350 gal 15% HCL	Acid-gal	350 gal 15% HCL	Acid-gal	0 gal



Formation Name	Depth To	Depth Bottom	Formation Thick
Plat	0.00	6	6.00
Red Shale	6.00	15	9.00
Brown Clay	15.00	24	9.00
Sand	24.00	35	11.00
Shale	35.00	90	55.00
Sand	90.00	130	40.00
Shale	130.00	190	60.00
Sand	190.00	215	25.00
Shale	215.00	250	35.00
Sand	250.00	340	90.00
Shale	340.00	380	40.00
Sand	380.00	410	30.00
Shale	410.00	568	158.00
Sand & Shale	568.00	630	62.00
Sand	630.00	662	32.00
Sand & Shale	662.00	724	62.00
Sand	724.00	753	29.00
Shale	753.00	820	67.00
Red Rock	820.00	832	12.00
Shale	832.00	847	15.00
Red Rock	847.00	862	15.00
Shale	862.00	875	13.00
Red Rock	875.00	898	23.00
Shale	898.00	903	5.00
Red Rock	903.00	913	10.00
Shale	913.00	1,000	87.00
Red Rock	1,000.00	1,012	12.00
Shale	1,012.00	1,421	409.00
Rosedale Gas Sand	1,421.00	1,578	157.00
Rosedale Salt Sand	1,578.00	1,750	172.00
Maxton Sand	1,750.00	1,938	188.00
Big Lime	1,938.00	2,003	65.00
Keener Sand	2,003.00	2,084	81.00
Big Injun	2,084.00	2,131	47.00
Weir	2,343.00	2,511	168.00
Gantz	2,511.00	2,784	273.00
Gordon	2,784.00	2,880	96.00
4th Sand	2,880.00	3,051	171.00
5th Sand	3,051.00	3,453	402.00
Warren	3,453.00	3,556	103.00
Speechley	3,556.00	3,933	377.00
Balltown B	4,169.00	4,286	117.00
Riley	4,555.00	4,847	292.00
Riley 3	4,847.00	4,909	62.00
Benson	4,909.00	4,964	55.00
Alexander	5,164.00	5,246	82.00
Sand & Shale	5,246.00	5,385	139.00

Gas Tests

Depth	Remarks
2,500	odor
2,589	odor
4,039	odor
4,601	odor
4,948	odor
5,074	odor
5,260	odor
5,385	odor

Rec'd
Office of Oil & Gas
NOV 20 2014

01/16/2015

8509653P

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

API # 4708508653

Farm Name Markwith, Dennis Well Number 511013
Location Elevation 1,060 Quadrange PENNBORO
District Clay County Ritchie, WV
Latitude 0230 FSL Degree 39.00 Minute 17.00 Second 30.00
Longitude 5150 FWL 80.00 57.00 30.00

Company Equitable Production Company
1710 Pennsylvania Avenue Charleston,
WV 25328
Agent Todd Telrick
Inspector David Gilbert
Permit issued 11/08/2007
Well Work Commenced 12/20/2007
Well Work Completed 01/29/2008
Verbal Plugging
Permission granted or _____
Rotary Rig Cable Rig _____
Total Depth 5,285

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cubic Ft
13 3/8	19	19	
7	1,065	1,065	247.80
4 1/2	5,343	5,343	538.20

CTS

Water Encountered

Type From
Fresh water None reported

Coal Encountered

Type From
Coal None reported

RECEIVED
Office of Oil & Gas

APR 09 2008

WV Department of
Environmental Protection

Open Flow Data

Producing Formation Riley/Benson/Alexand ; Well : Keeneritjun Pay Zone Depth (ft): See attached for details
Gas: Initial Open Flow 0 MCF 1/8/08 Date Oil: Initial Open Flow Bbl/d
Final Open Flow 608 MCF 01/29/2008 Date Final Open Flow
Time of open flow between initial and final tests 0 hours
Static Rock Pressure 130 after 0 hours
Second Producing Formation Pay Zone Depth (ft)
Gas: Initial Open Flow MCF Date Oil: Initial Open Flow Bbl/d
Final Open Flow MCF Date Final Open Flow
Time of open flow between initial and final tests hours
Static Rock Pressure after hours

NOTE: On back of this form put the following
1) Details of Perforated intervals, fracturing or stimulating, physical change, etc.
2) The well log, a systematic detailed geological record of all formations including coal encountered in the well bore

For Equitable Production Company
By [Signature]
Date 4-8-08

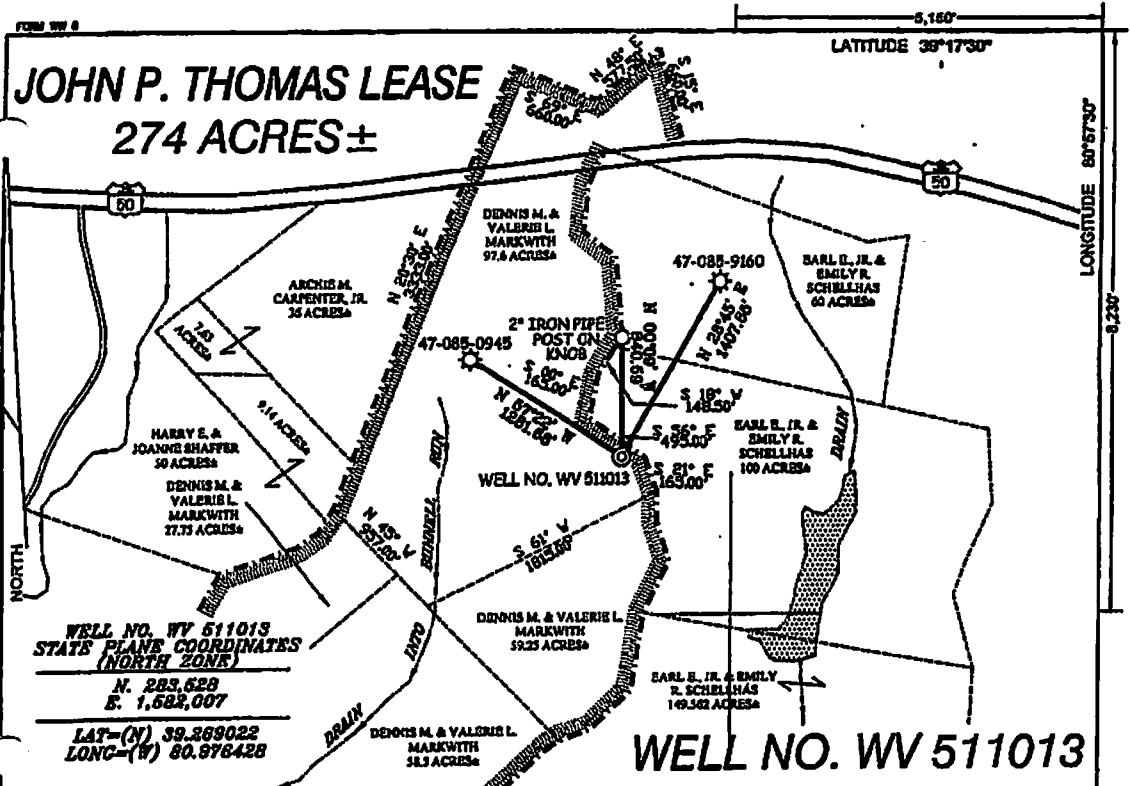
Received
Office of Oil & Gas

NOV 20 2014

Pennboro 7

01/16/2015

8509653P



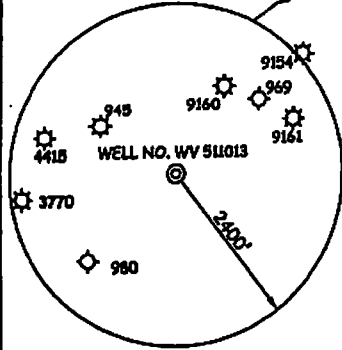
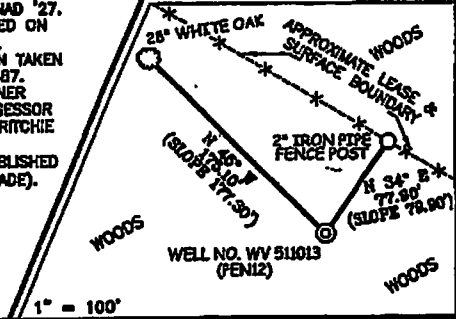
WELL NO. WV 511013
 STATE PLANE COORDINATES
 (NORTH ZONE)
 N. 283,628
 E. 1,582,007
 LAT-(N) 39.289022
 LONG-(W) 80.876428

WELL NO. WV 511013

NOTES ON SURVEY

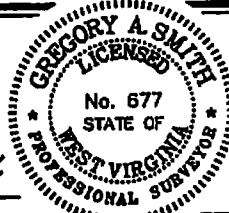
1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 08/28/07.
3. TRACT BOUNDARY SHOWN HEREIN TAKEN FROM DEED BOOK 282 PAGE 487.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN MAY, 2007.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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.

By *Gregory A. Smith*



(*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JULY 31, 20 07
 OPERATORS WELL NO. WV 511013
 API WELL NO. 47-085-09653
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 6257P511013 (237-31)
 SCALE 1" = 1,000'
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE)

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 1,080' WATERSHED TRIBUTARY OF BUNNELL RUN
 DISTRICT CLAY COUNTY RITCHIE QUADRANGLE PENNSBORO 7.5'

SURFACE OWNER DENNIS M. & VALERIE L. MARKWITH ACREAGE 97.6± (89±)
 ROYALTY OWNER DENNIS M. & VALERIE L. MARKWITH LEASE ACREAGE 274±
 LEASE NO. 122627

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION DEVONIAN SHALE
 ESTIMATED DEPTH 6,120'

WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT L. TODD TETRICK
 ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302 CHARLESTON, WV 25302

Received
 Office of Oil & Gas

NOV 20 2014

01/16/2015

8509653P

WW-4-A
Revised 6/07

1) Date: November 17, 2017
2) Operator's Well Number
511013 (John P. Thomas #12)
3) API Well No.: 47 085 - 09653
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 Dennis and Valerie Markwith
Address P. O. Box 159
Ellenboro, WV 26346-0159
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector David Cowan
Address 1597 Devil Hole Road
Harrisville, WV 26362-7543
Telephone (304) 389-3509

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name Dennis and Valerie Markwith
P. O. Box 159
Address Ellenboro, WV 26346-0159
(c) Coal Lessee with Declaration
Name None
Address _____

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

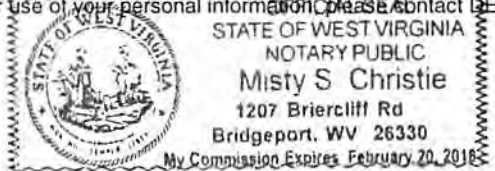
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 - (2) The plat (surveyor's map) showing the well location on Form WW-6.
- The reason you received these documents is that you have 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 18th day of November, 2014
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.



Received
Office of Oil & Gas
NOV 20 2014

01/16/2015

8509653P

neopost
11/19/2014
US POSTAGE
FIRST CLASS MAIL
\$07.40
ZIP 26330
0411102289C

CERTIFIED MAIL



7014 2120 0003 6736 0075
7014 2120 0003 6736 0075

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Postage \$ _____
 Certified Fee _____
 Return Receipt Fee (Endorsement Required) _____
 Restricted Delivery Fee (Endorsement Required) _____

Total Postage _____

Sent To: Dennis and Valerie Markwith
 P. O. Box 159
 Ellenboro, WV 26346-0159

Street & A/ or PO Box
 City, State, _____

Postmark Here

Plug 511013
 PS Form 3811, July 2013 See Reverse for Instructions

Received
Office of Oil & Gas
NOV 20 2014

SENDER: COMPLETE THIS SECTION

1. Article Addressed to:
 ■ Attach this card to the back of the mailpiece, so that we can return the card to you.
 ■ Print your name and address on the reverse of item 4 if Restricted Delivery is desired.
 ■ Complete items 1, 2, and 3. Also complete or on the front if space permits.

Dennis and Valerie Markwith
 P. O. Box 159
 Ellenboro, WV 26346-0159

2. Article Number (Transfer from service label)
 7014 2120 0003 6736 0075

PS Form 3811, July 2013

COMPLETE THIS SECTION ON DELIVERY

A. Signature _____
 X Agent
 B. Received by (Printed Name) _____
 C. Date of Delivery _____
 D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

3. Service Type
 Certified Mail®
 Registered
 Return Receipt for Merchandise
 Priority Mail Express™

4. Restricted Delivery? (Extra Fee) Yes No
 Insured Mail Collect on Delivery

01/16/2015

EQT
C/O Vicki Roark
P.O. Box 280
Bridgeport, WV 26330



C/O Vicki Roark
P.O. Box 280
Bridgeport, WV 26330

neopost
11/19/2014
FIRST-CLASS MAIL
\$01.61⁰
US POSTAGE
ZIP 26330
041L10228892

David Cowan
1597 Devil Hole Road
Harrisville, WV 26362-7453

Plug 511013

Received
Office of Oil & Gas
NOV 20 2014

850965BP

01/16/2015

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: Bunnels Run of Middle Island Creek of Ohio River Quadrangle: Pennsboro
Elevation: 1060 ft. County: Ritchie District: Clay

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~~ 20 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*

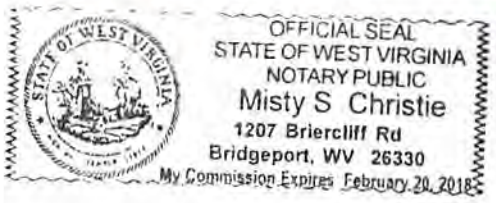
Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 18th day of November, 2014

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

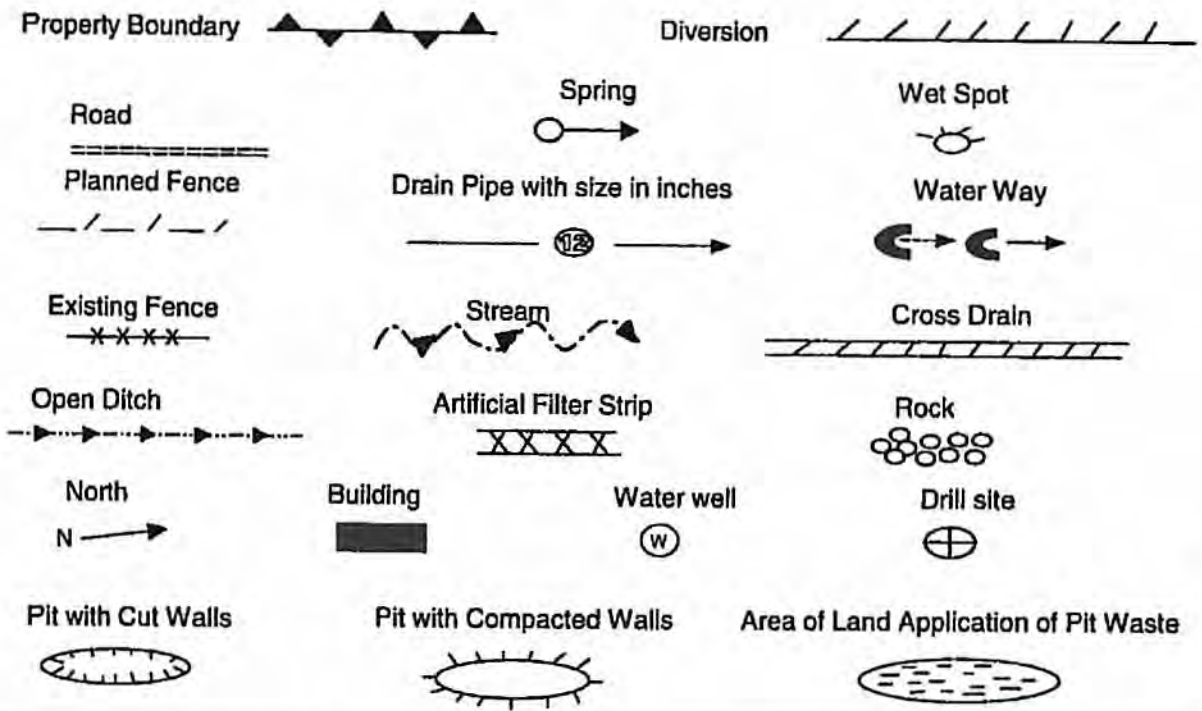
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01/16/2015

OPERATOR'S WELL NO.:
511013 (John P. Thomas #12)

LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH 6.0

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		

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ATTACH:
 Drawing(s) of road, location, pit and proposed area for land application.
 Photocopies section of involved 7.5' topographic sheet.

Plan approved by: David W. Cannon

Comments: redesign seed & mulch area

DEC 11 2014
 WV Department of Environmental Protection

Title: oil & gas inspector Date: 12-8-14
 Field Reviewed? Yes No

8509653P

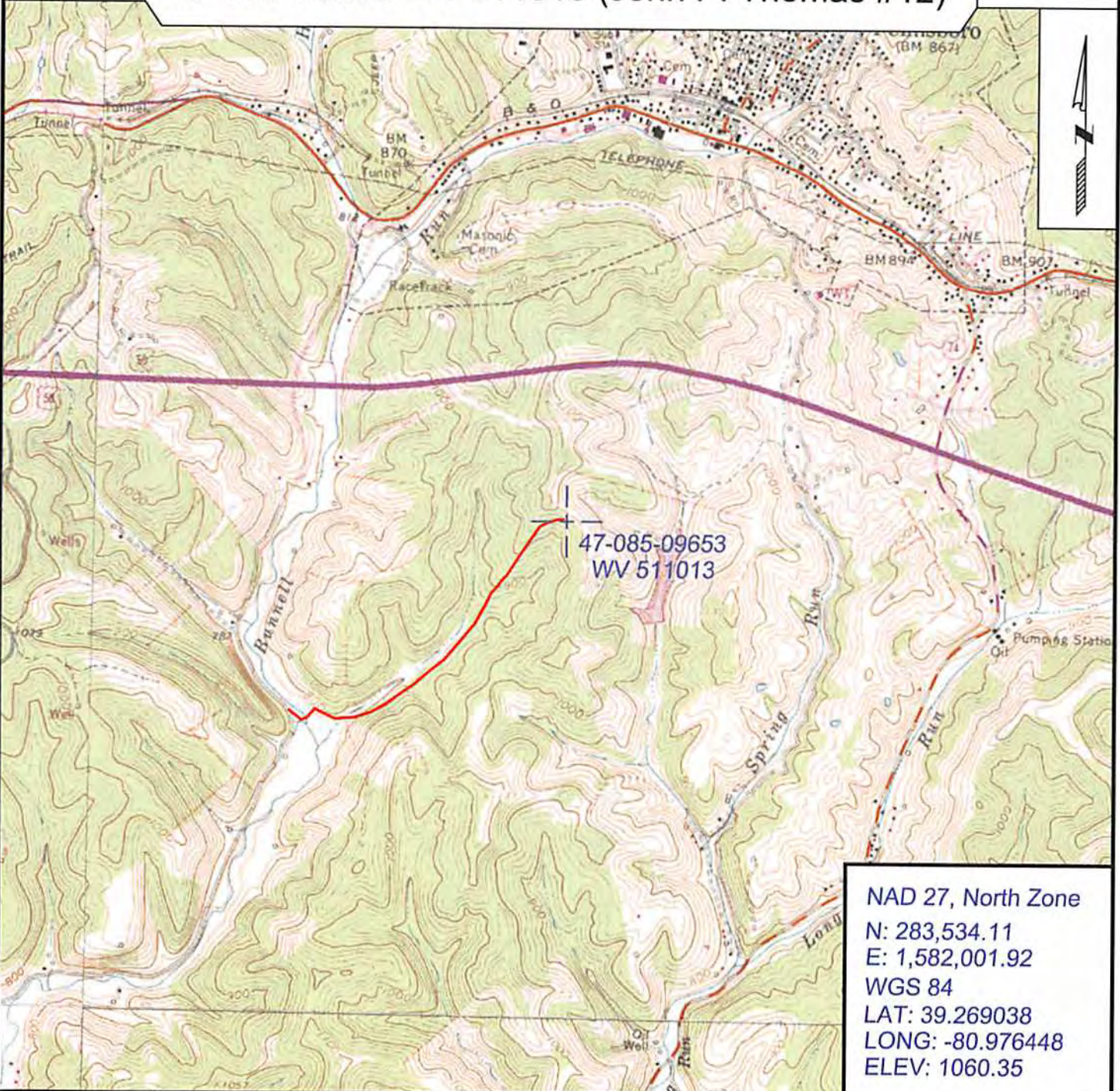
Topo Quad: Pennsboro 7.5' Scale: 1" = 2000'

County: Ritchie Date: September 30, 2014

District: Clay Project No: 67-30-00-08

47-085-09653 WV 511013 (John P. Thomas #12)

Topo



NAD 27, North Zone
 N: 283,534.11
 E: 1,582,001.92
 WGS 84
 LAT: 39.269038
 LONG: -80.976448
 ELEV: 1060.35



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:

Received
Office of Gilb
EQT Production Company

NOV 20 2014 P.O. Box 280
 Bridgeport, WV 26330

01/16/2015

WW-7
8-30-06



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

API: 47-085-09653 WELL NO.: WV 511013 (John P. Thomas #12)
FARM NAME: Dennis Markwith
RESPONSIBLE PARTY NAME: EOT Production Company
COUNTY: Ritchie DISTRICT: Clay
QUADRANGLE: Pennsboro 7.5'
SURFACE OWNER: Dennis M. & Valerie L. Markwith
ROYALTY OWNER: Dennis M. & Valerie L. Markwith
UTM GPS NORTHING: 4346642
UTM GPS EASTING: 502046 GPS ELEVATION: 323 m (1060 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.

Stacy Oberon
Signature

PS# 2180
Title

10/6/14
Date

Received
Office of Oil & Gas
NOV 20 2014

01/16/2015

8509653P

Topo Quad: Pennsboro 7.5'

Scale: 1" = 2000'

County: Ritchie

Date: September 30, 2014

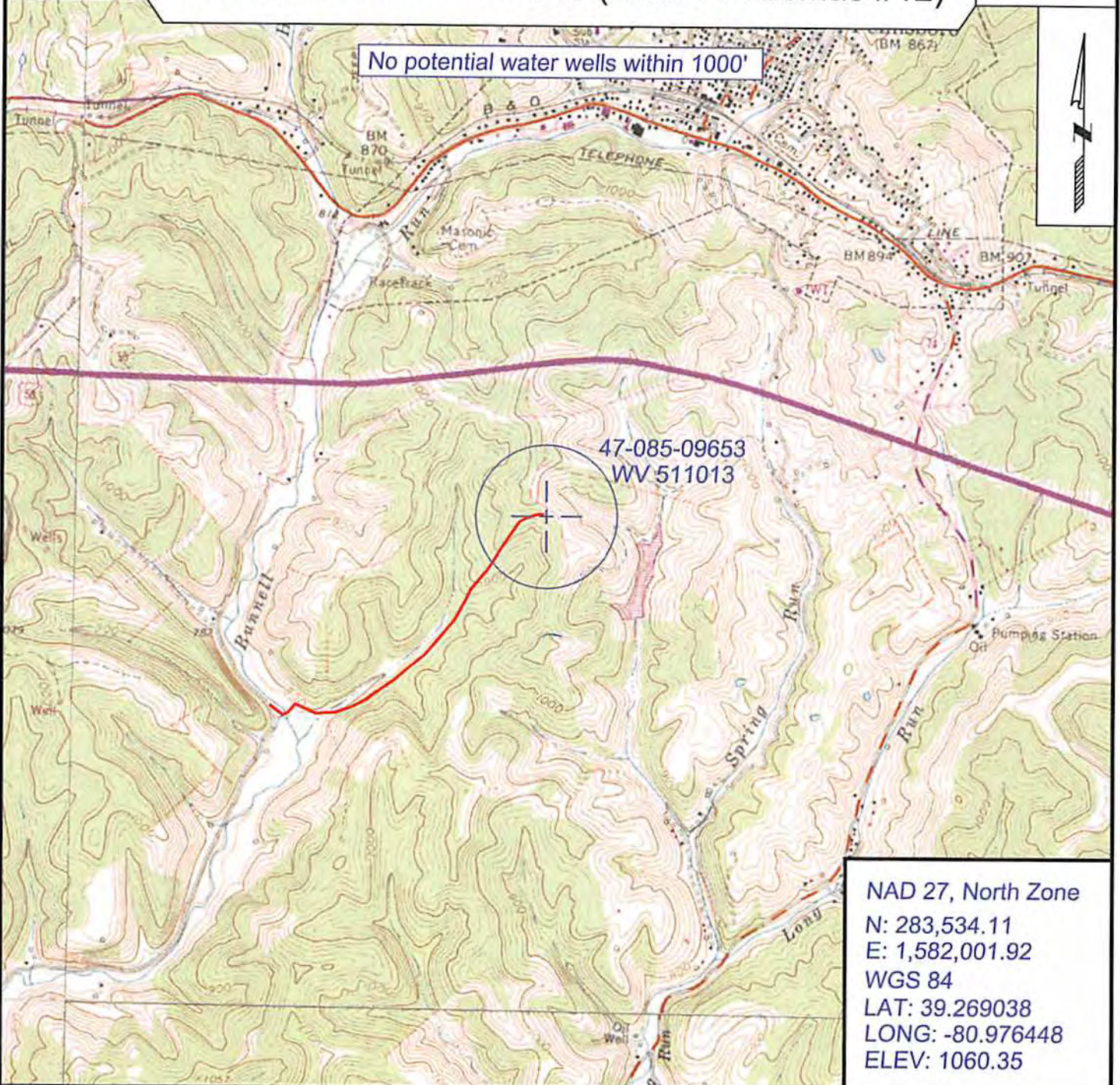
District: Clay

Project No: 67-30-00-08

Water

47-085-09653 WV 511013 (John P. Thomas #12)

No potential water wells within 1000'



NAD 27, North Zone
 N: 283,534.11
 E: 1,582,001.92
 WGS 84
 LAT: 39.269038
 LONG: -80.976448
 ELEV: 1060.35



SURVEYING AND MAPPING SERVICES PERFORMED BY:

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 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

NOV 20 2014

01/16/2015



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
LEASE NAME AND WELL No. John P. Thomas #12 - WV 511013 - API No. 47-085-09653

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 511013.

Received
Office of Oil & Gas
NOV 20 2014

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Birch River, WV 26610
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