



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

June 07, 2013

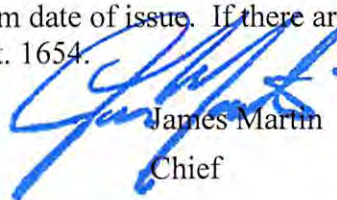
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4500257, 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: WV 017930 (AMHERST LAND #7)
Farm Name: ROBIN LAND CO.

API Well Number: 47-4500257

Permit Type: Plugging

Date Issued: 06/07/2013

Date: May 21, 2013
Operator's Well
Well No. WV 017930 (Amherst Land #7)
API Well No.: 47 - 045 - 00257 P

**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: 1301 Watershed: Right Fork of Buffalo Creek
Location: Triadelphia County: Logan Quadrangle: Amherstdale 7.5'
District: _____
- 6) Well Operator EQT Production Company 7) Designated Agent: Rex C. Ray
Address: 120 Professional Place Address: 120 Professional Place
Bridgeport, WV 26330 Bridgeport, WV 26330
- 8) Oil & Gas Ralph Triplett 9) Plugging Contractor:
Name: 5539 McClellan Hwy. Name: HydroCarbon Well Service
Address: Branchland, WV 25506 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 & Gas

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 RD Date 5/28/13

06/07/2013

4500257 P

PLUGGING PROGNOSIS

Amherst Land Co. # 7 (017930)

Logan County, W.V.
API # 47-045-00257

BY: Doug Fry

DATE: 3/15/13

CURRENT STATUS:

13 3/8" @ 24'

10 3/4" @ 730'

8 5/8" @ 2076' - Cmt w/ 120'

7" @ 2467'

2 3/8" tubing @ 3340'

RDT
05/28/13

Fresh Water @ 35' - 910'

Gas shows/ Perfs @ 1035'-1562' Sand, 2420'-2748' Big Lime, 2790'-3258' Slate Shales, 3280'-3327' Berea

Oil Shows @ None Reported

Salt Sand top 1035'

Coal: 58' - 120'

Stimulation; Shot w/ Nitro 3281'-3327'

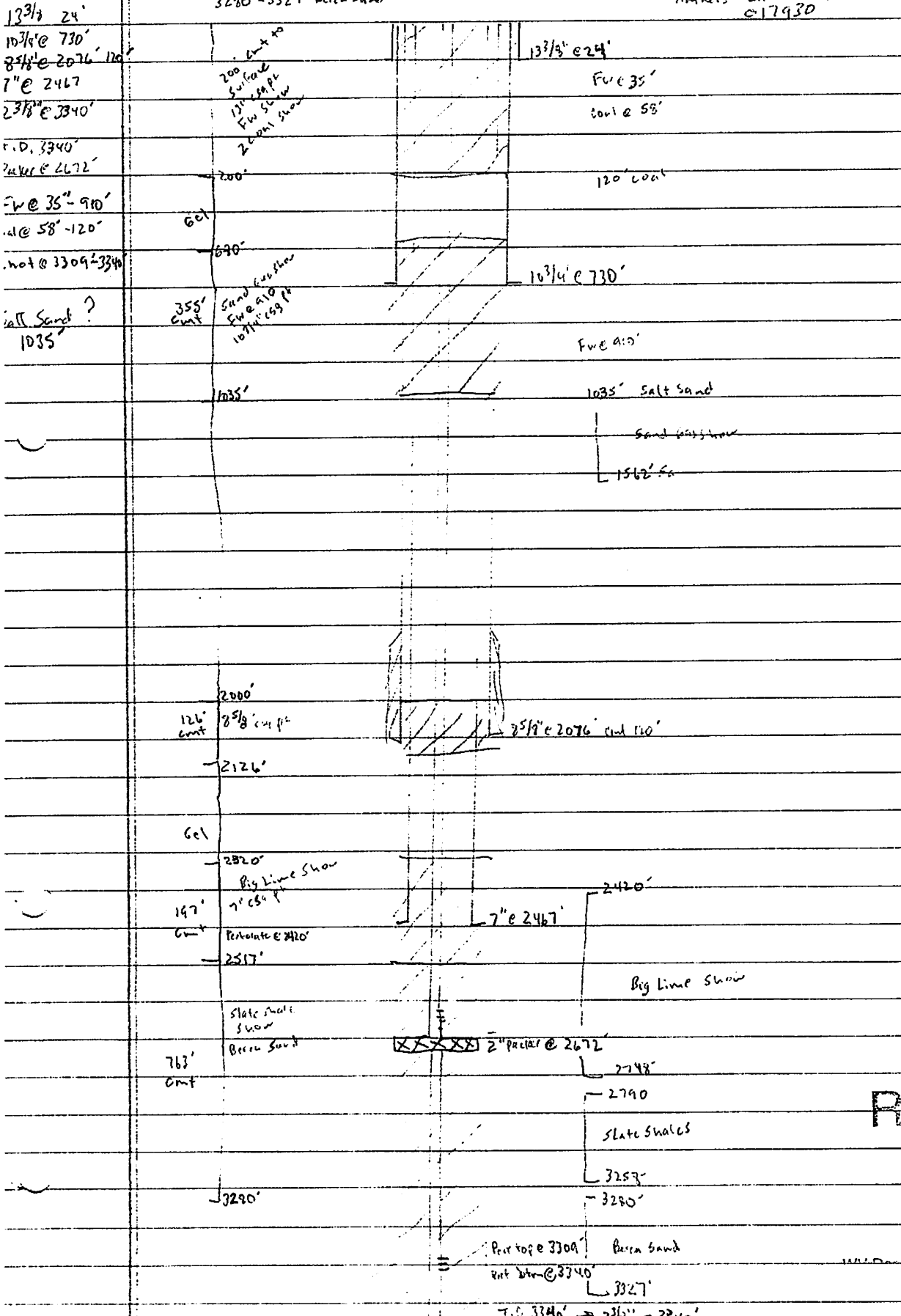
1. Notify inspector, Ralph Triplett @ 304-389- 0350 24 hrs prior to commencing operations.
2. Attempt to pull 2" tubing @ 3340' and packer @ 2672'. If tubing packer will not pull TIH w/ wire line to 2672' shoot off 2" tubing and pull out of hole and check condition.
3. TIH w/ tubing to 2672'; Set 152' C1A Cement Plug @ 2672' to 2520' (Packer, 2" cut, Berea, Slate shows).
4. TIH w/ wire line @ 2420', perforate 7" @ 2420', TOO H w/ wire line.
5. Attempt to pull 7" csg, If 7" casing not free, free point 7" casing, cut @ free point, TOO H w/ 7" casing if the hole will not cave in. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all Salt Sand top, FW, Gas, Oil and Coal shows below the 4.5" cut. Do not omit any plugs shown below.
6. TIH w/ tubing to 2520'; Set 334' C1A Cement Plug @ 2520' to 2320' (Big Lime, 7" csg pt).
7. TOO H w/ tubing, Gel Hole @ 2320' to 2126'.
8. TOO H w/ tubing @ 2126', Set 126' C1A Cement plug @ 2126' to 2000'. (8 5/8" csg pt).
9. TOO H w/ tubing, Gel Hole @ 2000' to 1035'.
10. TOO H w/ tubing, Free Point 8 5/8" csg , cut 8 5/8" csg @ Free Point, TOO H w/ 8 5/8" csg. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all 1st Salt Sand top, FW, Gas, Oil and Coal shows below the 8 5/8" cut. Do not omit any plugs shown below.
11. TIH w/ tubing to 1035'; Set 355' C1A Cement Plug @ 1035' to 680' (1st Salt Sand, Sand gas show, FW show, 10 3/4" csg pt).
12. TOO H w/ tubing , Gel Hole @ 680' to 200'.
13. TOO H w/ tubing, Free Point 10" csg , cut 10" csg @ Free Point, TOO H w/ 10" csg. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all Salt Sand top, FW, Gas, Oil and Coal shows below the 4.5" cut. Do not omit any plugs shown below.
14. TIH w/ tubing @ 290', Set 290' C1A cement plug @ 200' to Surface'. (13 3/8" csg pt, FW show, 2 coal shows .)
15. Top off as needed
16. Set monument to WV DEP specs
17. Reclaim Location to WV DEP Specifications.

Received
Office of Oil & Gas

06/07/2013

CASE 1035-1562 - Sand
2420'-2748' - Big Lime
2790'-3253' - Slate Shales
3280'-3327' Berea Sand

Logan C.O.
47-045-00257
Amherst Linn. C.O. # 7
@ 17930



Received

MAY 23 2013

Office of Oil and Gas
Environmental Protection
06/07/2013

4500257 A

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Log 257
Logan Quad.
Company
Address
Farm
Location
Well No.
District
Surface

Mineral
Commenced
Completed
Date shot

Open flow
Volume
Rock Pressure
Fresh Water
Salt Water

United Producing Company, Inc.
Box 1913, Charleston 27, W.Va.
Buffalo Creek Coal & Coke Co. A 210
Right Fork of Buffalo Creek
7 (1793) Elev. 1275.8' DF
Triadelphia Logan County
Buffalo Creek Coal & Coke Co.
Box 433, Charleston 22, W.Va.

Same
March 13, 1951
July 23, 1951
7-30-51 Depth 3281 to 3327'
with 230 qts. nitroglycerine
33/10ths W in 2"
242,000 C.F.
700 lbs. 48 hrs.
35°H.F.; 910' 1 blr. 48 hrs.
1195-1203' 1 blr. per hr.; 1295' 2 blrs. per hr.
1465-1500' filled up to 1475'

Gas Well
CASING & TUBING

13 3/8	24	24
10 1/2	730	730
8 5/8	2076	2076
7 OD	2467	2467
2 3/8	3340	3340

Packer
Depth set 2672'

Perf. top 3309'
Perf. bot 3340'

Casing cemented:
8 5/8" 120'
Coal at 58' 24"
120' 48"

Sand, gravel	0	21	Red Rock	2275	2298
Slate	21	58	Lime Sholl	2298	2305
Coal	58	60	Slate	2305	2315
Slate	60	70	Sand	2315	2344
Sand	70	120	Slate	2344	2303
Coal	120	124	Little Lime	2383	2417
Slate & Shells	124	138	Pencil Cavo	2417	2420
Sand	138	215	Big Lime	2420	2748
Slate & Shells	215	280	Injun Sand	2748	2790
Sand	200	345	Slate & Shells	2790	3258
Slate	345	351	Shalo Brown	3258	3280
Sand	351	375	Borea Sand	3280	3327
Slate & Shells	375	595	Slate	3327	
Sand	595	647	T.D.		3340
Slate & Shells	647	668			
Lime Black	668	686	Gas 1300' no test		
Sand	686	757	Gas 2726-2731' show		
Slate & Shells	757	779	Gas 2850' 4/10 W 1" 21 M		
Sand	779	910	Gas 2980' 10/10 W 1" 33 M		
Slate	910	925	Gas 3284' 12/10 W 1" 37 M		
Sand	925	942	Gas 3296' 11/10 W 1" 35 M		
Slate & Shells	942	1010	Gas 3302' 12/10 W 1" 37 M		
Lime	1010	1035	Gas 3320' 14/10 W 1" 39 M		
Sand	1035	1562	Gas 3224' 17/10 W 1" 43 M		
Slate & Shells	1562	1575			
Sand	1575	1665			
Slate & Shells	1665	1680			
Lime	1680	1710			
Slate & Shells	1710	1745			
Sand	1745	1765			
Slate & Shells	1765	1850			
Lime	1850	1862			
Sand	1862	1993			
Red Rock	1993	2025			
Lime	2025	2052			
Pink Rock	2052	2060			
Slate	2060	2072			
Lime	2072	2096			
Slate	2096	2125			
Red Rock	2125	2133			
Lime Sholl	2133	2138			
Slate & Shells	2138	2166			
Maxon Sand	2166	2195			
Slate	2195	2200			
Red Rock	2200	2210			
Lime	2210	2248			
Slate	2248	2255			
Lime	2255	2270			
Slate	2270	2275			

3280
1276
-2004

Received

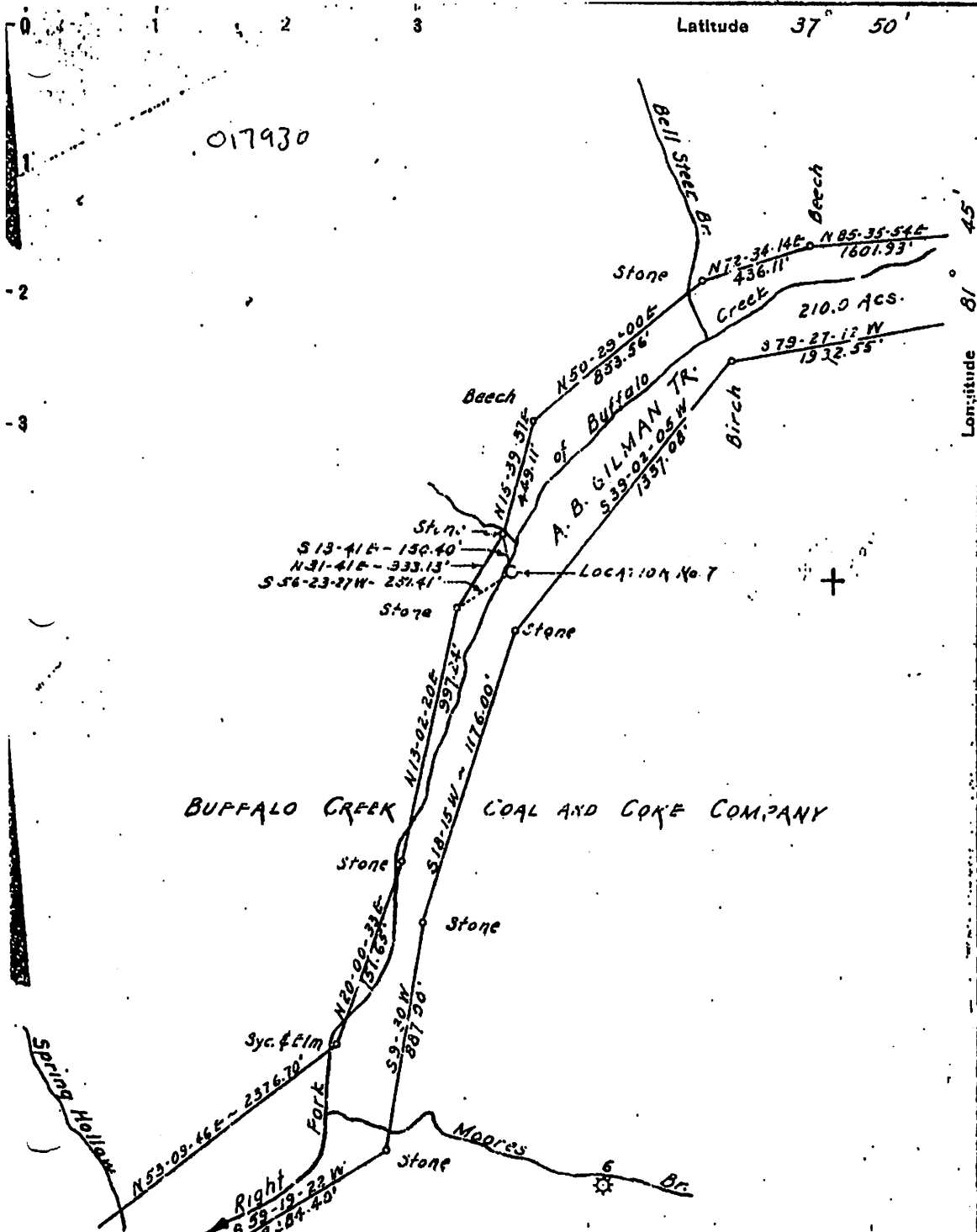
MAY 23 2013

Office of Oil and Gas
WV Dept. of Environmental Protection
06/07/2013

45 00 25 7 A

Latitude 37° 50'

Longitude 81° 45'



New Location
 Drill Deeper
 Abandonment

COORDINATES No. 7 = S 5,176.13' E 11,515.58'

Company UNITED PRODUCING CO. INC.
 Address CHARLESTON, W. VA.
 Farm BUFFALO CREEK COAL & COKE CO.
 Tract _____ Acres 210 Lease No. 6458
 W (Farm) No. 7 Serial No. 1793
 Elevation (Spirit Level) 1273.8 Cr.
 Quadrangle LOGAN
 County LOGAN District TRIAD-2814
 Engineer C. W. Withrow
 Engineer's Registration No. 1377 Ky.
 File No. 20-0 Drawing No. _____
 Date 2-16-51 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. LOG-257

+ 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 in. h space or border line of original tracing.

06/07/2013

Received

MAY 23 2013

Office of Oil and Gas
 WV Dept. of Environmental Protection

45 00257P

WW-4-A
Revised 6/07

- 1) Date: May 21, 2013
- 2) Operator's Well Number
WV 017930 (Amherst Land #7)
- 3) API Well No.: 47 045 - 00257
State County Permit

check # 15539
\$ 200.00

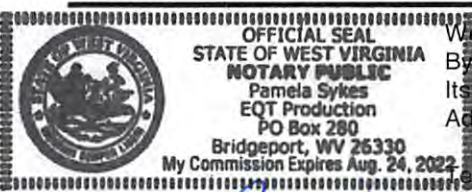
**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL**

<p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Robin Land Company</u> ✓ Address <u>500 Lee Street East</u> <u>Suite 900</u> <u>Charleston, WV 25301</u></p> <p>(b) Name _____ Address _____</p> <p>(c) Name _____ Address _____</p> <p>6) Inspector <u>Ralph Triplett</u> ✓ Address <u>5539 McClellan Hwy.</u> <u>Branchland, WV 25506</u> Telephone <u>304.389.0350</u></p>	<p>5) (a) Coal Operator: Name <u>None</u> Address _____</p> <p>(b) Coal Owner(s) with Declaration Name <u>Robin Land Company</u> ✓ Address <u>500 Lee Street East</u> <u>Suite 900</u> <u>Charleston, WV 25301</u></p> <p>(c) Coal Lessee with Declaration Name <u>Apogee Coal Co., Catenary Coal Co.</u> ✓ Address <u>Coyote Coal Co.</u> <u>C/O Patriot Coal</u> <u>9 School Dr.</u> <u>Belle, WV 25015</u></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.



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 21 day of May, 2013
Pamela Sykes Notary Public
 My Commission Expires: 8.24.22

Received

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.

WW2-A

Additional Coal Lessees:

✓ Hampden Coal Company
1210 Larry Joe Harless Dr.
Gilbert, WV 25601

✓ Lauren Land Co.
P.O. Drawer 830
Belfry, KY 41514

Received

MAY 23 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

06/07/2013

**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: Right Fork of Buffalo Creek Quadrangle: Amherstdale 7.5'
Elevation: 1301 County: Logan District: Triadelphia

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.

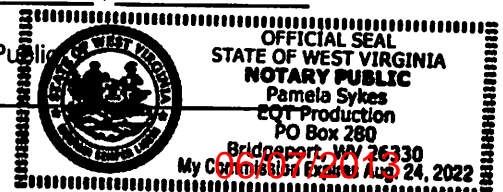
Company Official Signature *Victoria Roark*

Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

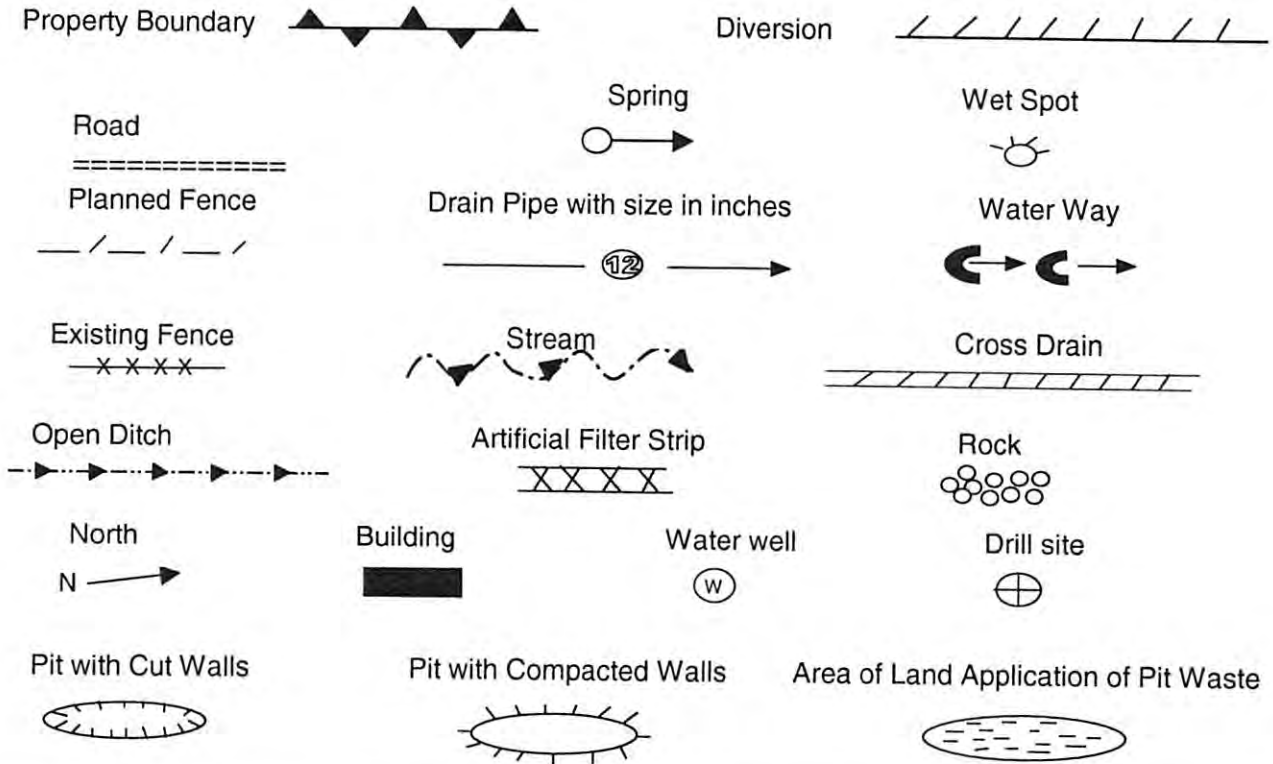
Subscribed and sworn before me this 21 day of May, 2013

Pamela Sykes Notary Public
My Commission Expires 8-24-22



OPERATOR'S WELL NO.:
WV 017930 (Amherst Land #7)

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: Ralph D. Trippl

Comments: _____

Title: District Inspector Date: May 28, 2013
Field Reviewed? Yes No

Topo Quad: Amherstdale 7.5'

Scale: 1" = 2000'

County: Logan

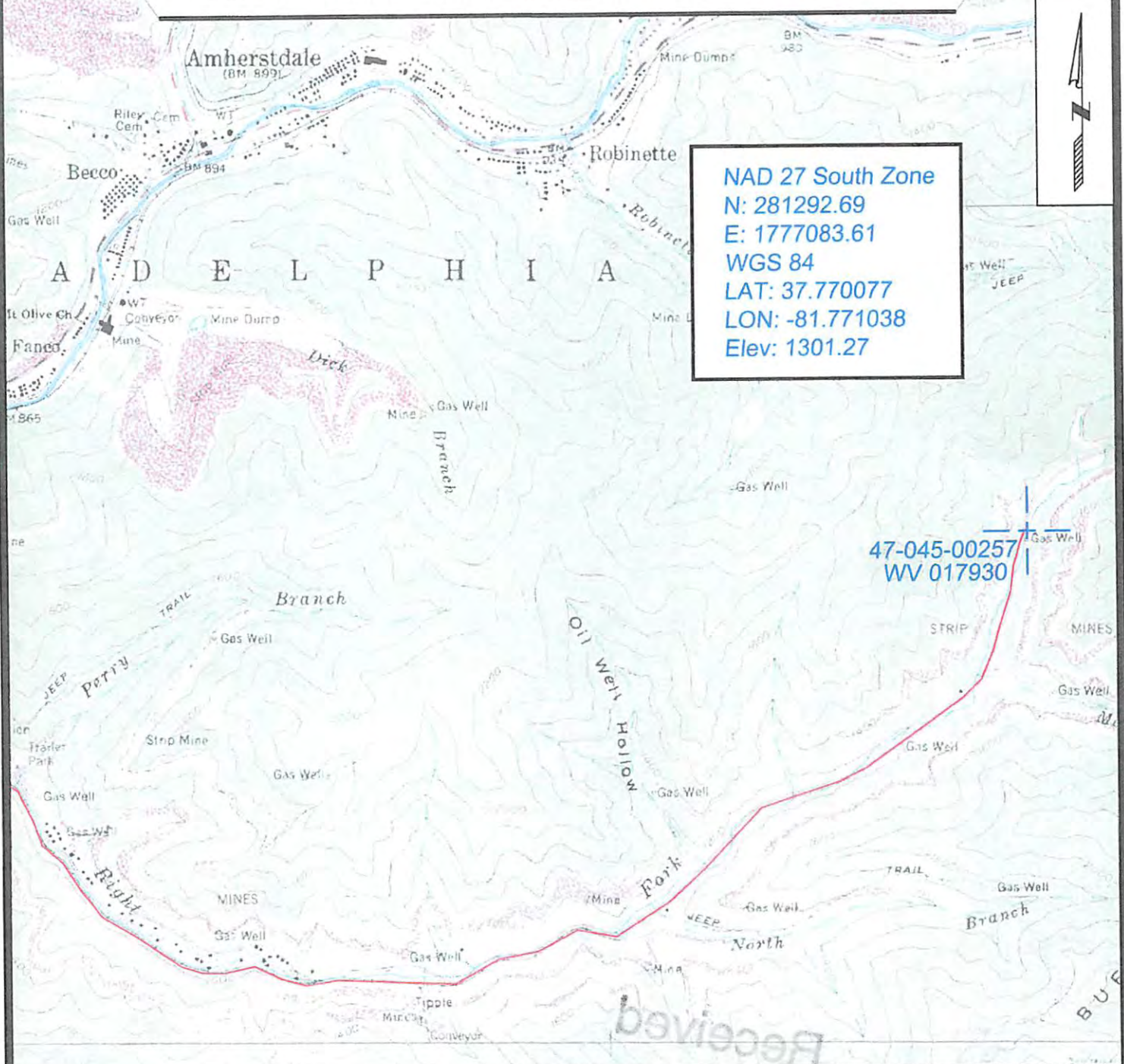
Date: May 3, 2013

District: Triadelphia

Project No: 21-21-00-08

Amherst Land Co. #7 WV 017930 (47-045-00257)

Topo



NAD 27 South Zone
 N: 281292.69
 E: 1777083.61
 WGS 84
 LAT: 37.770077
 LON: -81.771038
 Elev: 1301.27

47-045-00257
 WV 017930



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



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY INC.

LEASE NAME AND WELL No. Amherst Land Co. #7, WV 017930 (47-045-00257)

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 017930.

Received

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

MAY 23 2013
ALUM CREEK OFFICE
P.O. Box 108 • 1413 Childress Road
Alum Creek, WV 25003
phone: 800-756-2949
fax: 304-756-2948
Office of Oil and Gas
WV Dept. of Environmental Protection

Topo Quad: Amherstdale 7.5'

Scale: 1" = 2000'

County: Logan

Date: May 3, 2013

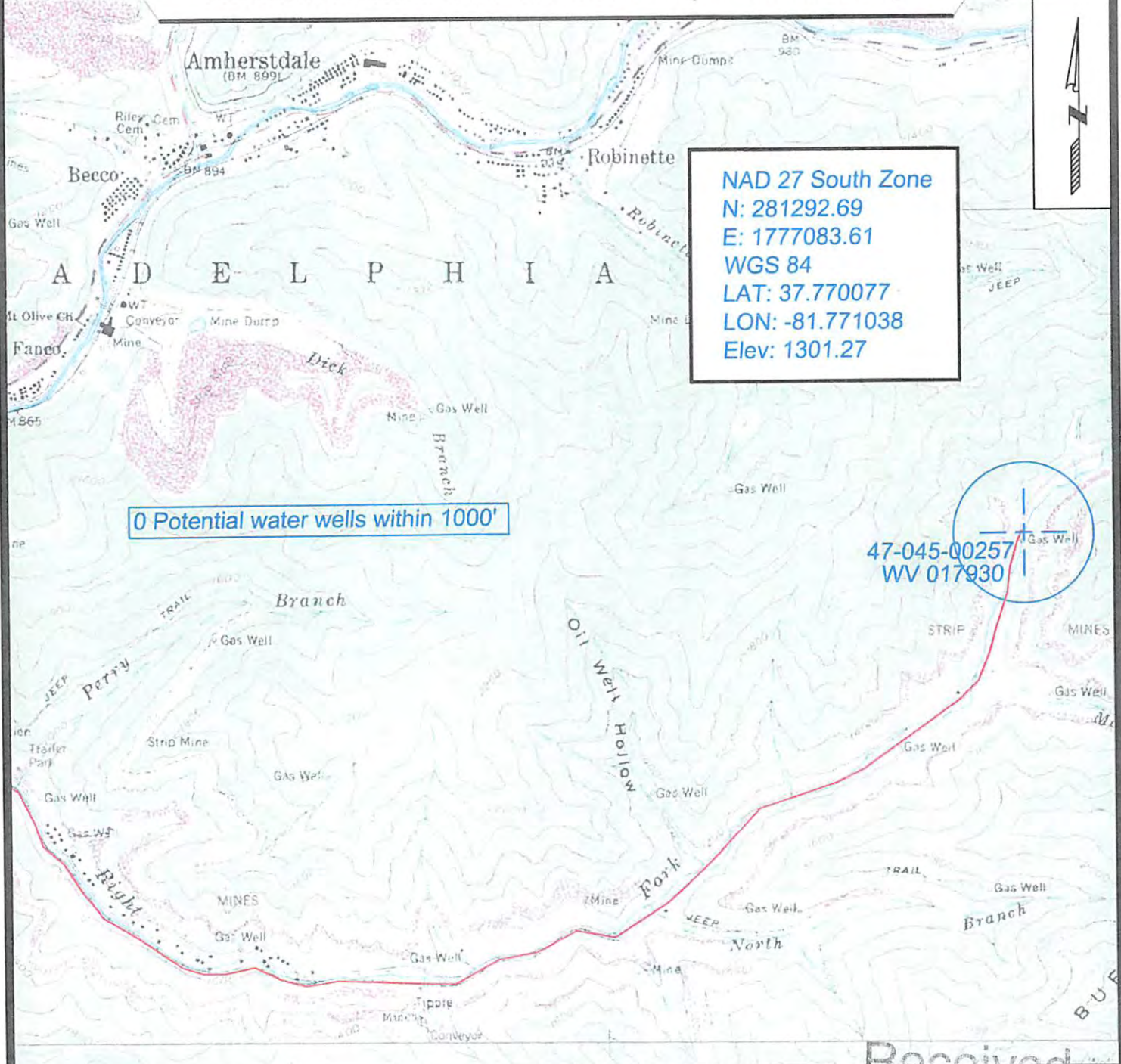
District: Triadelphia

Project No: 21-21-00-08

Water

Amherst Land Co. #7 WV 017930 (47-045-00257)

Topo



0 Potential water wells within 1000'

NAD 27 South Zone
 N: 281292.69
 E: 1777083.61
 WGS 84
 LAT: 37.770077
 LON: -81.771038
 Elev: 1301.27

47-045-00257
 WV 017930

Received



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 1-800-482-8606
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 BIRCH RIVER, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
 P.O. Box 280
 Bridgeport, WV 26330
 Office of Oil and Gas
 WV Dept. of Environmental Protection

06/07/2013

45-00257P



Where Energy Meets Innovation

120 Professional Place
P.O. Box 280
Bridgeport, WV 26330
304-848-0009

CERTIFIED MAIL

Ralph Triplett
5539 McClellan Hwy.
Branchland, WV 25506

RDT
05/28/13

Dear Mr. Triplett

Re: Proposed WV 017930 (Amherst Land #7) Gas Well
District, Triadelphia County, Logan

Pursuant to Section 22B-1-9 of the West Virginia Code, enclosed please find copies of the following documents:

- Form WW-4A Notice of Application for a Pluggin Permit (1 copy)
- Form WW-4B Application for a Pluggin Permit (1 copy)
- Form WW-2B(1) Notice to Surface Owners with a Water Supply
- Form WW-7 Certified Copy of WVDEP Well Location
- Form WW-9 Reclamation Plan and Site Registration Application (1 copy)

This application is being filed by EQT Production with the Administrator of the Office of Oil and Gas of the West Virginia Department of Environmental Protection. If you have no objections to this well being plugged, please sign the Waiver on Form WW-4(A) and return one copy to our office.

Thank you for your cooperation and consideration. Should you have any questions, comments, or require any additional information, please feel free to contact me at (304) 848-0076.

Sincerely,
EQT PRODUCTION COMPANY

Vicki Roark
Permitting Supervisor- WV

Enclosures

06/07/2013