



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 30, 2013

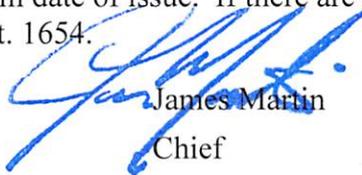
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3903972, 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: (BR-117) WV 210011

Farm Name: ORLANDI, INC.

API Well Number: 47-3903972

Permit Type: Plugging

Date Issued: 08/30/2013

Promoting a healthy environment.

3903972P

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

Date: August 15, 2013
Operator's Well
Well No. WV 210011 Marmet BR #117
API Well No.: 47 039 - 03972

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil Gas Liquid Injection Waste Disposal:
If Gas, Production Or Underground storage Deep Shallow

5) Elevation: 882 Watershed: Great Kanawha River
Location: Loudon County: Kanawha Quadrangle: Belle 7.5'
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

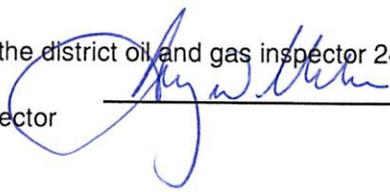
8) Oil & Gas Terry Urban
Name: P.O. Box 1207
Address: Clendenin, WV 25045

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 8/15/13

Received

AUG 20 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

3903972P

PLUGGING PROGNOSIS

Marmet BR #117 (210011)

Kanawha County, West Virginia
API # 47-039-03972
Belle Quad

BY: Craig Duckworth
DATE: 2/18/13

CURRENT STATUS:

8 5/8" csg @ 626' cts *CEMENTED TO SURFACE*
7" csg @ 968' 50sks
4 1/2" csg @ 1548' 100sks

TD @ 1559'

Elevation @ 882'

Fresh Water @ 180'

Salt Water @ 820'

Salt Sand @ 703'

Coal @ 60'-63'; 175'-177'; 475'-476'; 587'-589'

Gas shows @ Big Lime (1348')

Oil Shows @ Big Lime (1411' & 1461')

Stimulation: @ Injun 1530'; Big Lime 1461'

1. Notify State Inspector, Terry Urban 304-549-5915, and 24 hrs prior to commencing operations.
2. TOOH w/ 2" tbg and check condition.
3. TIH w/ tbg @ 1540'; Set 290' C1A Cement Plug @ 1540' to 1250' (Big Lime & Injun)
4. TOOH w/ tbg @ 1300'; Gel hole @ 1300' to 1000'
5. TOOH w/ tbg and attempt to pull 4 1/2"; Freepoint 4 1/2", cut/shoot at freepoint. Set 168' C1A Cement Plug @ 1000' to 900' (4 1/2" csg cut & 7" csg)
6. 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
7. TOOH w/ tbg @ 900'; Gel hole @ 900' to 703
8. Freepoint 7", cut/shoot at freepoint of 7"
9. 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
10. TIH w/ tbg @ 703'; Set 278' C1A Cement Plug @ 703' to 425' (Salt Sand 703', 7" csg cut & bottom of 8 5/8" cts, Coal 589' to 587' & 476' to 475')
11. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 7" cut Do not omit any plugs
12. TOOH w/ tbg @ 425'; Gel hole @ 425' to 230'
13. TOOH w/ tbg @ ; Set 230' C1A Cement Plug @ 230' to 0' (FW 180', Coal 177' to 175', Coal 63' to 60')
14. Top off as needed
15. Set Monument to WV-DEP Specifications
16. Reclaim Location & Road to WV-DEP Specifications

Craig Duckworth
8-19-13
Received
AUG 20 2013
Office of Oil and Gas
Department of Environmental Protection



IV-
(Rev. 8-81) **RECEIVED**
OCT 20 1985

DIVISION OF OIL & GAS
DEPT. OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date October 18, 1985
Operator's
Well No. BR-117
Farm Joseph Orlandi
API No. 47-039-3972

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil X / Gas / Liquid Injection / Waste Disposal
(If "Gas," Production / Underground Storage / Deep / Shallow)
LOCATION: Elevation: 882.30 Watershed Bradford Hollow of Kanawha River
District: Loudon County Kanawha Quadrangle Belle 7.5'

COMPANY Cumberland Gas Company
ADDRESS P O Box 2386, Chas., WV 25328
DESIGNATED AGENT Fred A Radford
ADDRESS P O Box 2386, Chas., WV 25328
SURFACE OWNER Joseph Orlandi
4109 Kanawha Ave SE
ADDRESS Charleston, WV 25304
MINERAL RIGHTS OWNER Joseph Orlandi
4109 Kanawha Ave SE
ADDRESS Charleston, WV 25304
OIL AND GAS INSPECTOR FOR THIS WORK
Jerry Holcomb RR1, Box 28
ADDRESS Hamlin, WV 25523
PERMIT ISSUED 6/25/83
DRILLING COMMENCED 11/17/83
DRILLING COMPLETED 1/25/84
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON N/A

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
10-3/4	38.9'	38.9'	
9 5/8			
8 5/8	626.75'	626.75'	To Surf.
7	968.6'	968.6'	50 sks
5 1/2			
4 1/2	1548.15'	1548.15'	100 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Lime Depth 1307' feet
Depth of completed well 1559 feet Rotary / Cable Tools X
Water strata depth: Fresh 180 feet; Salt 820 feet
Coal seam depths: 60-63; 175-177; 475-476; Is coal being mined in the area? No
587-589;

OPEN FLOW DATA
Producing formation Big Lime Pay zone depth 1461 feet
Gas: Initial open flow Show Mcf/d Oil: Initial open flow Show Bbl/d
Final open flow 60 Mcf/d Final open flow 5 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 145 psig (surface measurement) after 48 hours shut in
(If applicable due to multiple completion--)
Second producing formation Injun Pay zone depth 1530 feet
Gas: Initial open flow 90 Mcf/d Oil: Initial open flow -- Bbl/d
Final open flow 190 Mcf/d Oil: Final open flow -- Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 145 psig (surface measurement) after 48 hours shut in

(Continue on reverse side)

Received

OCT 19 2013

Office of Oil and Gas
West Virginia Department of Environmental Protection

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

1500-1530 perforated 32 holes. Water Frac w/ 555 bbls water, 250 gal 15% HCL, 140,000 SCF Nitrogen, 30,000# 20/40 Sand.

1461-1469 perforated 10 holes. Acidized Big Lime w/ 1000 gals 15% HCL.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Soil			0	10	
Slate			10	30	
Broken Sd			30	60	
Coal			60	63	
Sand			63	80	
Slate			80	97	
Sand			97	150	
Slate			150	175	
Coal			175	177	
Sand			177	190	
Broken Sd			190	290	
Sand			290	330	
Broken Sd			330	380	
Sl & Shs			380	450	
Sand			450	475	
Coal			475	476	
Sand			476	555	
Sl & Shs			555	566	
Sand			566	587	
Coal			587	589	
Sand			589	622	
Sl & Shs			622	650	
Broken Sd			650	703	
Salt Sand			703	887	
Slate			887	901	
Red Rock			901	960	
Sand			960	975	
Broken Sd			975	992	
Sand			992	1069	
Lime Shell			1069	1080	
Broken Sd			1080	1085	
Sand			1085	1113	
Red Rock			1113	1133	
Sl & Sh			1133	1160	
Red Rock			1160	1180	
Lime Shell			1180	1196	
Sand			1196	1218	

Cont'd on Sheet no. 2

(Attach separate sheets as necessary)

Cumberland Gas Company

Well Operator

By: Frederic A. Radford

Date: October 23, 1985

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including soil, encountered by the drilling of a well."

Received

AUG 19 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

SHEET NO. 2
Well Log Continued

Date: October 18, 1985
Operator's Well No. BR-117
Farm: Joseph Orlandi
API No. 47-039-3972

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas.
Slate & Shells			1218	1240	
Lime			1240	1272	
Slate			1272	1280	
Lime			1280	1296	
Slate			1296	1298	
Little Lime			1298	1304	
Slate			1304	1307	
Big Lime			1307	1505	S/G 1348'
Injun Sand			1505	1537	S/O 1411'
Slate			1537	1559	S/O 1461'

Total Depth: 1559'

WELL OPERATOR: Cumberland Gas Company

Received

AUG 19 2018

39 03972A

WW-4-A
Revised 6/07

1) Date: August 15, 2013
2) Operator's Well Number
WV 210011 Marmet BR #117
3) API Well No.: 47 039 - 03972
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 Orlandi, Inc. ✓
Address P.O. Box 4465
Charleston, WV 25364

(b) Name _____
Address _____

(c) Name _____
Address _____

6) Inspector Terry Urban ✓
Address P.O. Box 1207
Clendenin, WV 25045
Telephone 304.549.5915

5) (a) Coal Operator:
Name None
Address _____

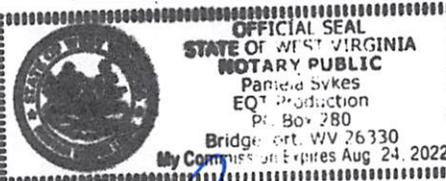
(b) Coal Owner(s) with Declaration ✓
Name Orlandi, Inc.
Address P.O. Box 4465
Charleston, WV 25364

(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 ✓
Title: Permitting Supervisor
Address: PO Box 280
Bridgeport, WV 26330
Telephone: (304) 848-0076

Subscribed and sworn before me this 15 day of Aug., 2013
My Commission Expires: 8-24-22 Notary Public

Received
AUG 19 2013

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.

3903972P

WW-9
Revised 2/03

Page ____ of ____
2) Operator's Well Number
WV 210011 Marmet BR #117
3) API Well No.: 47 039 - 03972

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: Great Kanawha River Quadrangle: Belle 7.5'
Elevation: 882 County: Kanawha District: Loudon

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:
 Land Application
 Underground Injection - UIC Permit Number _____
 Reuse (at API Number) _____
 Offsite Disposal Permit #. _____
 Other: Explain _____

16 8-14-13

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? _____

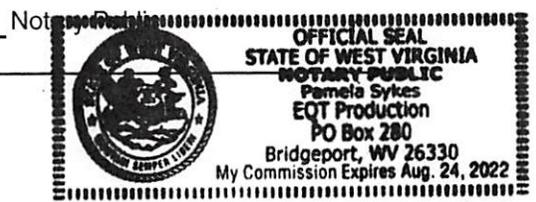
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of 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.

Received
AUG 20 2013

Company Official Signature *Victoria Roark*
Company Official (Typed or Printed) Victoria Roark
Company Official Title Permitting Supervisor-WV
Subscribed and sworn before me this 15 day of Aug., 2013

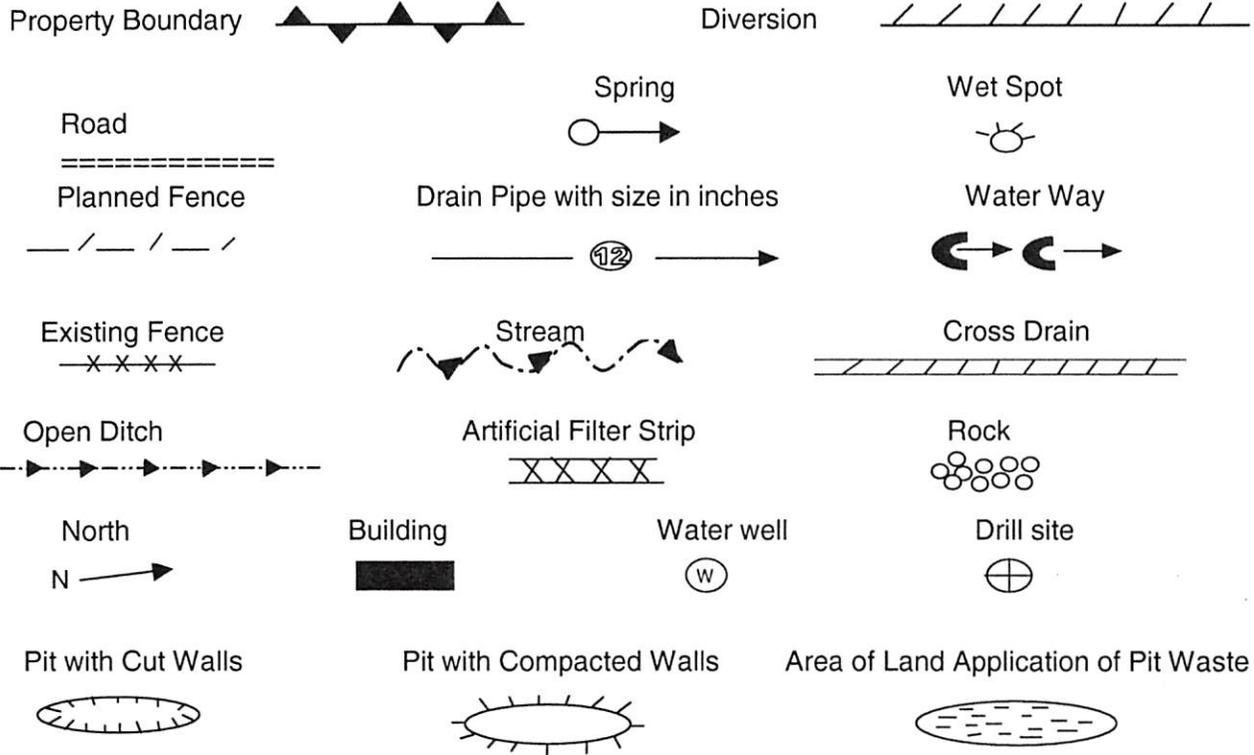
Office of Oil and Gas
WV Dept. of Environmental Protection

My Commission Expires 8-24-22



OPERATOR'S WELL NO.:
WV 210011 Marmet BR #117

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: *[Signature]*

Comments: _____

Title: *Imported Soil Class* Date: *8/19/13*

Field Reviewed? Yes No

3903972P

Topo Quad: Belle 7.5'

Scale: 1" = 2000'

County: Kanawha

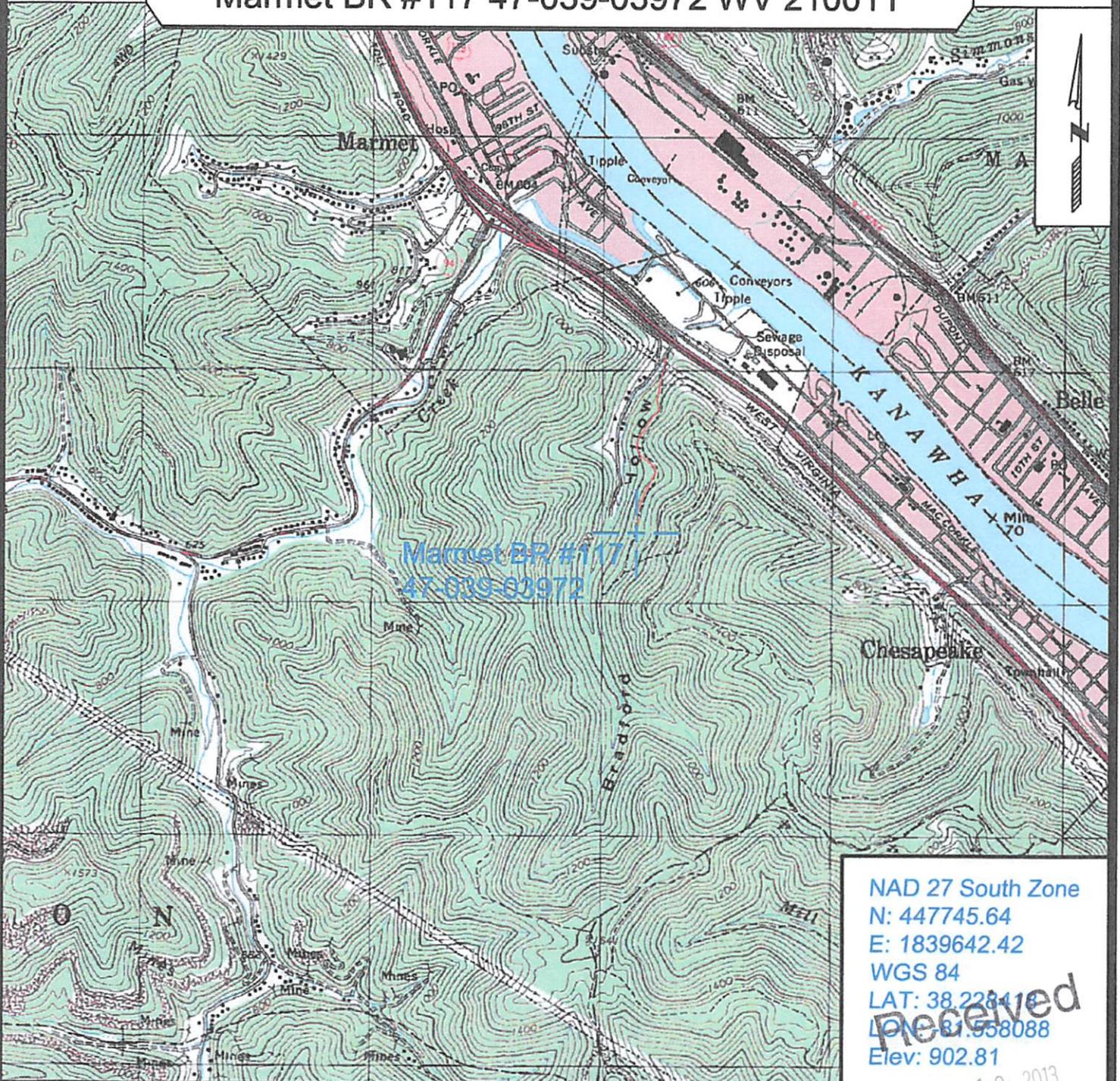
Date: June 17, 2013

District: Loudon

Project No: 52-14-00-07

Marmet BR #117 47-039-03972 WV 210011

Topo



NAD 27 South Zone
 N: 447745.64
 E: 1839642.42
 WGS 84
 LAT: 38.228418
 LONG: -81.958088
 Elev: 902.81

received

AUG 19 2013



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

Office of Mine, Safety & Health
 U.S. Dept. of Environmental Protection

