



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

September 19, 2013

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1900931, 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 508086) LAWSON HAMILTO

Farm Name: ACIN, LLC

API Well Number: 47-1900931

Permit Type: Plugging

Date Issued: 09/19/2013

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.

Date: August 28, 2013
Operator's Well
Well No. WV 508086(Lawson Hamilton)
API Well No.: 47 019 - 00931 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: 1247' Watershed: Milburn Creek
Location: Valley 09 County: Fayette 19 Quadrangle: Pax 7.5' 537
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.

*Plugs will as per
P.O. being pulled*

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

[Signature]

Date 9-3-13

PLUGGING PROGNOSIS

Lawson Hamilton WV 508086 (508086)

Fayette COUNTY, W.V.

API # 47-109-00931

Quad, Pax

47-019-00931 P

BY: Doug Fry

Elev. 1235'

DATE: 1/4/13

CURRENT STATUS:

13 3/8" @ 32' Cmtd - Est toc @ to surface

9 5/8" @ 142' Cmtd - Est Toc @ 50'

4.5 @ 2886' Cmtd - Est Toc @ 1400'

2" @ ?

Fresh Water @ None Reported

Gas shows/ Perfs @ 2562'-2784' Berea/Gordon, 1604'-1616' L Maxton,

Oil Shows @ None Reported

Salt Sand top 745'

Coal: None reported

Stimulation; Frac

1. Notify inspector, Terry Urban @ 304-549-5915 24 hours prior to commencing operations.
2. TOOH w/ 2" tubing check SN configuration and tally pipe back into hole to the depth of 2784'.
3. TIH w/ tubing to 2784'; Set 322' C1A Cement Plug @ 2784' to 2462' (Gordon , Berea Perfs).
4. TOOH w/ tubing, Gel Hole @ 2462' to 1616'.
5. TOOH w/ tubing to 1616'; Set 116' C1A Cement Plug @ 1616' to 1500' (L Maxton perfs).
6. TOOH w/ tubing, Gel Hole @ 1500' to 745'.
7. TOOH w/ tubing, Free Point 4.5" csg , cut 4.5" csg @ Free Point, TOOH w/4.5" 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.
8. TIH w/ tubing @ 745'', Set 100' C1A Cement plug @ 745', to 645'.(Salt Sand).
9. TOOH w/ tubing , Gel Hole @ 645' to 461'.
10. TOOH w/ Tubing @ 461'; Set 100' C1A Cement Plug @ 461' to 361'. (7" csg pt.)
11. TOOH w/ tubing , Gel Hole @ 361' to 250'.
12. TOOH w/ tubing, Free Point 7" csg , cut 7" csg @ Free Point, TOOH w/7" 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 7" cut. Do not omit any plugs shown below.
13. TIH w/ tubing @ 250' , Set 250' C1A Cement Plug to Surface. (9 5/8" csg pt, 13" csg pt).
14. Top off as needed
15. Set monument to WV DEP specs
16. Reclaim Location to WV DEP Specifications.

May
Combine
Plugs

[Signature]
1-3-13

WR-35

API # 47- 019-00931

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Reviewed alt

Well Operator's Report of Well Work

Farm Name: Ark Land Company Operator Well No.: 508086
LOCATION: Elevation: 1235' Quadrangle: Pax
District: Valley County: Fayette
Latitude: 2790' Feet South of 38 Deg. 0
Longitude: 9670' Feet West of 81 Deg. 17 30

Stamp: JUN 14 2002

Company: Equitable Production Company
P.O. Box 2347, 1710 Pennsylvania Avenue
Charleston, WV 25328

Agent: Stephen G. Perdue

Inspector: Richard Campbell
Permit issued: 5/21/01
Well work commenced: 10/11/01
Well work completed: 11/28/01

Casing & Tubing Size	Used in Drilling	Left in Well	Cement-Fill Up Cu. Ft.
13 3/8"	32'	32'	grouted
9 5/8"	142'	142'	83.4 ft³
7"	411'	411'	59 ft³
4 1/2"	2886'	2886'	236.25 ft³
2 3/8"		2723'	

Verbal Plugging
Permission granted on: _____
Rotary Rig X Cable Rig _____
Total Depth 2916 feet
Fresh water depths (ft) _____
Salt water depths (ft) 154', 172', 280', 515', 553', 679'
Is coal being mined in area? _____
Coal Depths (ft): _____

OPEN FLOW DATA
Producing formation Gordon / Berea; Lower Maxton Pay Zone Depth (ft): See Attach for details
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow: 88 MCF/d Final open flow: _____
Time of open flow between initial and final tests _____ Hours
Static rock pressure 315 psig (surface pressure) after _____ Hours
Second producing 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: _____
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface 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 WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: Kathy L. Conway
Equitable Production Company

By: Sam J. Davis
Date: 11/10/02

FAY 0931

09/20/2013

**EQUITABLE PRODUCTION COMPANY
WR-35 COMPLETION REPORT - Attachment
Well Treatment Summary**

Well: WV-508086-Hamilton

API# 47-019-00931

Date	11/06/01	11/06/01				
Type Frac Acid, N ₂ , Foam, Water	85-80-75 Q Foam	85-80-75 Q Foam				
Zone Treated	Gordon Berea	Lower Maxton				
# Perfs From - To:	40 2562'-2784'	22 1604' - 1616'				
BD Pressure @ psi	830	3010				
ATP psi	2242	1365				
Avg. Rate, B=B/M, S= SCF/M	44 B (foam)	24 B (foam)				
Max. Treat Press psi	2350	1410				
ISIP psi	330	260				
Frac Gradient	.55	.59				
10 min S-I Pressure	490	890				
Material Volume						
Sand-sks	729	302				
Water-bbl	260	92.3				
SCF N ₂	648,000	149,700				
Acid-gal	350 gal 15%	500 gal 15%				
NOTES:						

TOP	BOTTOM	FORMATION	REMARKS
0	15'	Surface rock & clay	
15'	59'	Salt Sand mix	
60'	61'	Shale	
62'	70'	Salt Sand	
70'	695'	Salt Sand & Shale	Water @ 154', 280', 515' & 553'
695'	709'	Shale	Water @ 679
709'	745'	Salt Sand	
745'	755'	Shale	
	882'	Salt Sand	
1084'	1114'	Ravenciff	
1122'	1144'	Avis	
1180'	1204'	Upper Maxton	
1298'	1314'	Middle Maxton	
1596'	1623'	Lower Maxton	GT @ 1605' =odor
1643'	1686'	Little Lime	
1730'	2029'	Big Lime	
2080'	2109'	Big Injun	
2148'	2190'	Upper Weir	
2289'	2296'	Lower Weir	
2550'	2560'	Sunbury	
2560'	2592'	Berea	
2762'	2785'	Gordon	
	2916'	TD	

1900931P

WW-4-A
Revised 6/07

1) Date: August 28, 2013
2) Operator's Well Number
WV 508086(Lawson Hamilton)
3) API Well No.: 47 019 - 00931
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 ACIN LLC ✓
Address 5260 Irwin Road
Huntington, WV 25727
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Terry Urban ✓
Address P.O. Box 1207
Clendenin, WV 25045
Telephone 304-549-5915

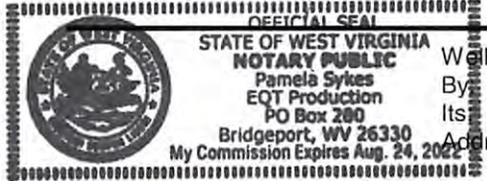
5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name ACIN LLC ✓
5260 Irwin Road
Address Huntington, WV 25727
Name _____
Address _____
(c) Coal Lessee with Declaration
Name None
Address _____

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.

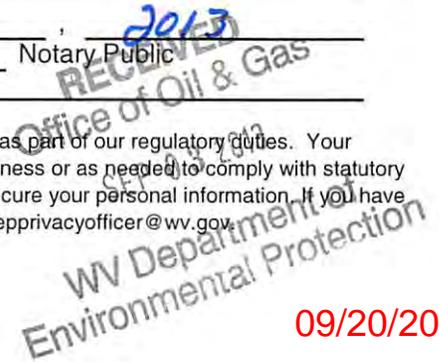
Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Division of Environmental 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 29 day of Aug, 2013
[Signature] Notary Public
My Commission Expires: 8-24-22

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.



09/20/2013

2) Operator's Well Number

WV 508086(Lawson Hamilton)

3) API Well No.: 47 019 - 00931

**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: Milburn Creek Quadrangle: Pax 7.5'

Elevation: 1247' County: Fayette District: Valley

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 _____

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

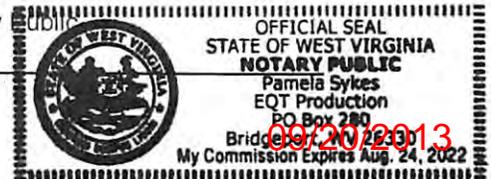
Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 29 day of Aug, 2013

Pamela Sykes

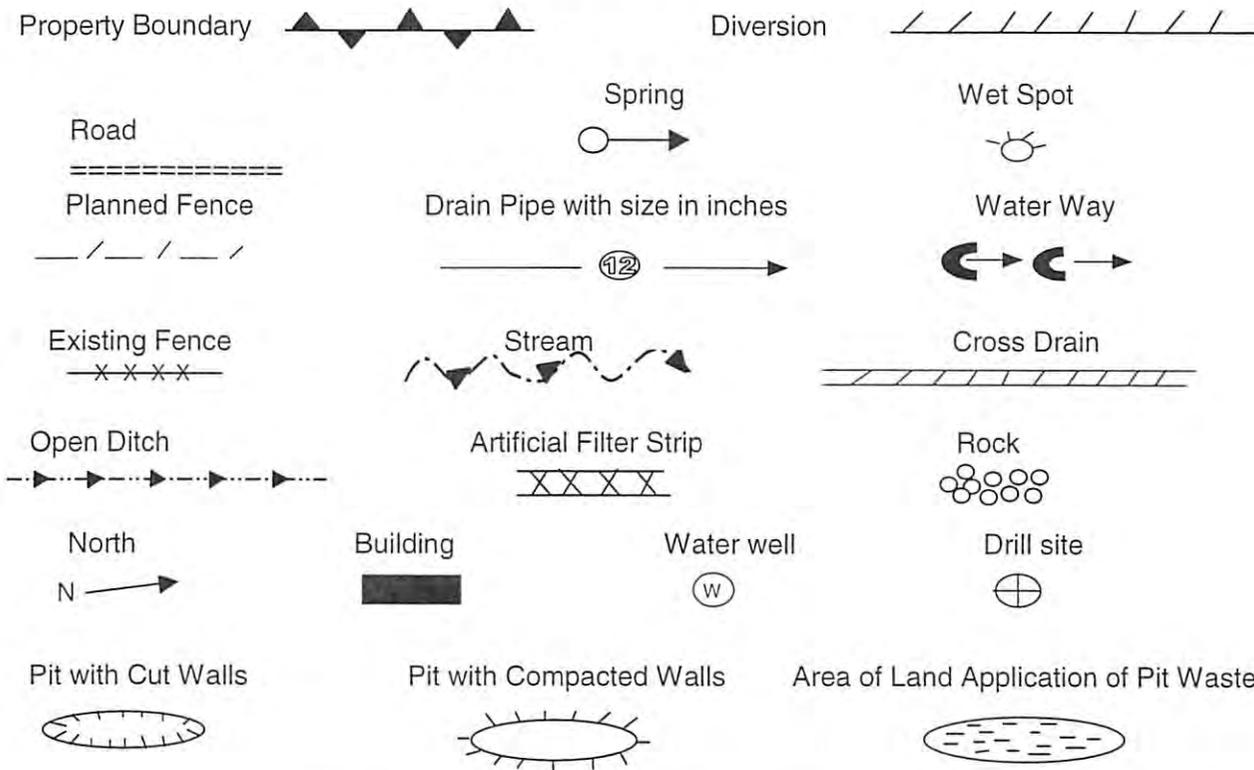
My Commission Expires 8-24-20

Notary



OPERATOR'S WELL NO.:
WV 508086(Lawson Hamilton)

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: Inspector Date: 9-2-13

Field Reviewed? Yes No

1900931A

Topo Quad: Pax 7.5'

Scale: 1" = 2000'

County: Fayette

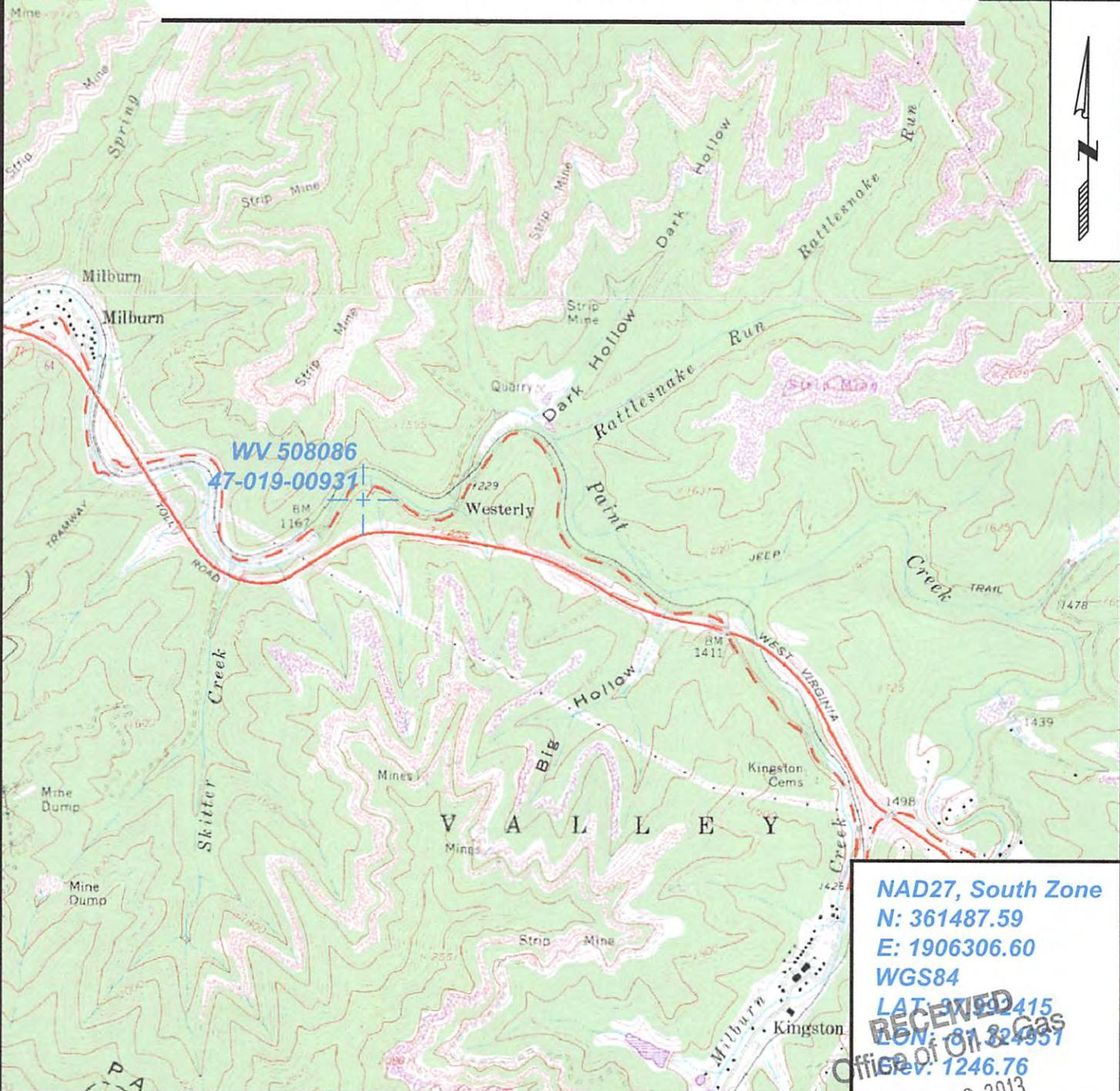
Date: August 16, 2013

District: Valley

Project No: 57-05-00-07

WV 508086 47-019-00931 (Lawson Hamilton #508086)

Topo



NAD27, South Zone
 N: 361487.59
 E: 1906306.60
 WGS84
 LAT: 37.415
 LONG: -81.4931
 Elev: 1246.76

RECEIVED
 Office of Oil & Gas
 SEP 09 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

09/20/2013

WW-7
8-30-06

VOID



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

API: 47-019-00931 . WELL NO.: WV 508086 (Lawson Hamilton #508086) .

FARM NAME: Lawson Hamilton .

RESPONSIBLE PARTY NAME: EQT Production Company .

COUNTY: Fayette . DISTRICT: Valley .

QUADRANGLE: Pax 7.5' .

VOID

SURFACE OWNER: AICN, LLC .

X

ROYALTY OWNER: New River Estates, LLC, et al. .

UTM GPS NORTHING: 4205023 .

UTM GPS EASTING: 471467 . GPS ELEVATION: 380 m (1247 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 *Steph...*
Date 8/19/13

Title PS # 2180

VOID

RECEIVED
Office of Oil & Gas
SEP 03 2013
WV Department of Environmental Protection

09/20/2013

Topo Quad: Pax 7.5'

Scale: 1" = 2000'

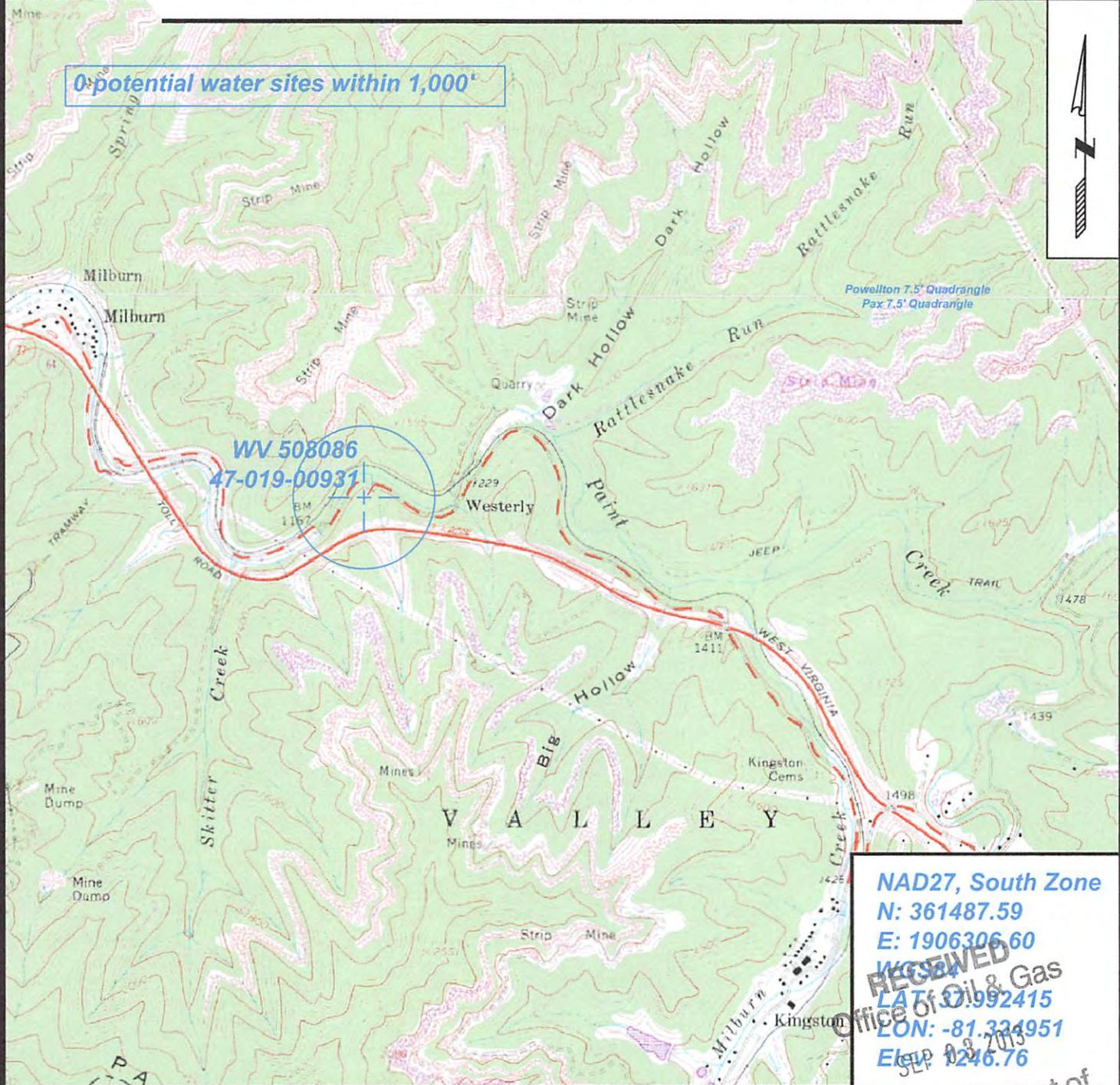
County: Fayette

Date: August 16, 2013

District: Valley

Project No: 57-05-00-07

Water WV 508086 47-019-00931 (Lawson Hamilton #508086)



NAD27, South Zone
 N: 361487.59
 E: 1906306.60
 LAT: 37.992415
 LON: -81.324951
 Elev: 1246.76

RECEIVED
 Office of Oil & Gas
 SEP 12 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
 WV Department of Environmental Protection
 P.O. Box 280
 Bridgeport, WV 26330

09/20/2013