



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 29, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-9500546, issued to HG ENERGY, LLC, 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: 9
Farm Name: BAKER, D. - HEIRS
API Well Number: 47-9500546
Permit Type: Plugging
Date Issued: 09/29/2015

Promoting a healthy environment.

10/02/2015

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.
4. This well is under a consent order and must be plugged under the terms of that agreement.

- 1) Date July 15, 2015
- 2) Operator's
Well No. Dorsey Baker Heirs 9
- 3) API Well No. 47-005 - 005

STATE OF WEST VIRGINIA
DEPARTMENT 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) Location: Elevation 1172' Watershed Indian Creek
District McElroy County Tyler Quadrangle Centerpoint 7.5'

- 6) Well Operator HG Energy, LLC 7) Designated Agent Diane White
Address 5260 Dupont Road Address 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101

- 8) Oil and Gas Inspector to be notified
Name Mike Goff
Address PO Box 134
Pullman, WV 26421

- 9) Plugging Contractor
Name To Be Determined Upon Approval of Permit
Address _____

10) Work Order: The work order for the manner of plugging this well is as follows:

****See attached sheet****

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WV Department of
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Michael Goff Date 7-30-15

10/02/2015

9500546P

WW-4B
Rev. 2/01

1) Date: July 15, 2015
2) Operator's Well Number Dorsey Baker Heirs 9
3) API Well No: 47 - 095 - 0546
State County Permit

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) WELL TYPE: Oil X Gas X Liquid Injection _____ Waste Disposal _____
(If "Gas", Production _____ Underground Storage _____) Deep _____ Shallow x
5) LOCATION: Elevation: 1172' Watershed: Indian Creek
District: McElroy County: Tyler Quadrangle Centerpoint 7.5'
6) WELL OPERATOR: HG Energy, LLC 4.94E+08 7) DESIGNATED AGENT Diane White
Address 5260 Dupont Road Address 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101
8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) PLUGGING CONTRACTOR
Name Mike Goff Name To Be Determined Upon Approval of Permit
Address PO Box 134 Address _____
Pullman, WV 26421

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

TD-3,063'

SPOT GEL TO ABOVE SHOT HOLE @ 3030'

Manners of plugging:

Pull 5 3/16" casing
Plug #1 3000' - 2900'
Located above Gordon
Plug #2 - 2500' - 2250'
Located at 6 5/8" casing shoe/through Big Injun
Free-point, rip, part and pull 6 5/8" casing at maximum depth (approx. 1800')
Plug #3 - approx. 1850' - 1750'
Located at 6 5/8" casing stub
Plug #4 -1225' - 1125'
Located at Elevation
Plug #5 - 1025' -925'
Located through Coal
Plug #6 - 350' - 250'
Freshwater
Plug #7 - 100' - 0'
Surface

MAG
7-30-15

Recover all possible casing. If casing can not be recovered, perforate for plug placement.

Monument:

6" minimum diameter metal pipe
30" above surface
10' in well below surface
Sealed with cement
API identification (1/2") height numbering

6% Gel between all plugs

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OFFICE USE ONLY

PLUGGING PERMIT

Permit Number _____ Date _____ 19 _____

This permit covering the well operator and the well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual work has commenced.

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires _____ unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	WPCP	Other
-------	--------	-------	---------	------	-------

Chief, Office of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator

10/02/2015

Well: Baker, Dorsey Heirs #9

Monument min. 6" dia. metal pipe, 30" above surface, 10' in well below surface, sealed with cement, API id.

Elevation 1172'

Casing Information		
Size	Depth	Weight
6 5/8"	2429'	#/ft.
5 3/16"	2435'	#/ft.

Freepoint Cut and Pull Casing	
Size	Approx. Depth
5 3/8"	2435
6 5/8"	1800

Pittsburgh Coal 975'

Cement Plugs		
NO.	Bottom	Top
1	3000	2900
2	2500	2250
3	1850	1750
4	1225	1125
5	1025	925
6	350	250
7	100	0

Elevation Plug 1225' - 1125'

Bottom Hole Cement Level Calculations

Sacks Used: 70
 Cement Depth: 2208.649

Hole Size: 6.5
 Casing Size: 4.5
 Depth: 2668

diameter delta: 22
 Conv. Factor: 1029.4
 bbls / ft.: 0.021372

cubic ft. per vertical ft. depth: 0.119991257

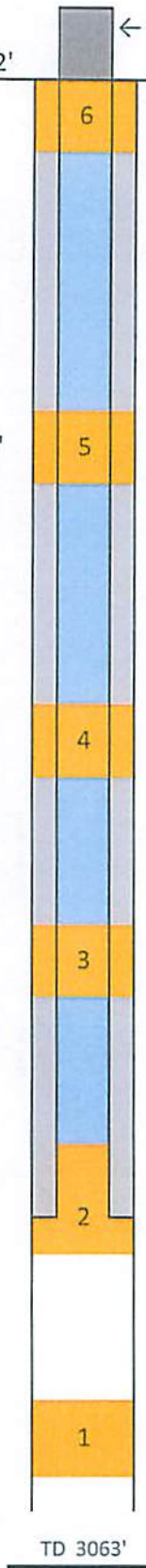
Sacks per vertical ft. depth: 0.152388896 ← Edit Yield Options

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Plug #3 located at 6 5/8" free point/casing break. (approx. 1850' - 1750')

Note: 6% gel between all plugs

Yield options
 50/50 posmix 6% gel = 1.64
 Neat w/ salt flakes = 1.19
 50/50 w/ 2% gel = 1.27



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TD 3063'

60

13277-13130
No. 68060-68062 Acres 150

Farm Name DORSEY BAKER HEIRS

Well No. 9

S. 1-2 E. W. 4-5	Location Made	Purchased From
District MCELroy	Rig Completed	Date Purchased
County Tyler	Dr'g Commenced 7/20/99	Sold To
State W. Va.	Dr'g Completed 9/4/99	Date Sold
Rights Owned By	Dr'g Contractor Fall Bros.	Date Abandoned

1173-41 FORMATION Ground 1173-11

Kind	Top	Bottom	Steel Line Measurement	Tests
Coal	975			
Injun	2305	2435		
ay Sand	3008	3026		
don Sand	3029	3048		
Pay Oil	3038			
AL DEPTH		3063		

Size	Bottom Casing (Steel Line)	Put In Well (Tally Meas.)	Pulled (Tally Meas.)	Cemented
Cond		12		Date
10		365	365	Size Csg.
8 1/2		1507	1507	Top "
6 5/8		2429		Bot. "
5 3/16		2435		

PACKERS AND SHOES			
Kind	Size	Depth Set	Date Set

TORPEDO RECORD					
Date	No. Qts.	Size Shell	Top Shot	Bottom	Results
?	60				
10/20/13	100	7'6"	3038		

DRILLING DEEPER				
Commenced	Completed	Original Depth	Final Depth	Contractor

ABANDONMENT RECORD				
Filled With	From	To	PLUG	
			Size	Depth
11/28/13				

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Prod.	Sand	* At Completion	* 30Days After	*

APPROVED
10/02/2015 Supt.

P.2
95005467

Baker, Dhrsey (Heirs)		Well #9	Acres 150	Lease No. 68060-68062 13277-13130	
Pitts. Coal	975			Casing Record	
Big Injun	2305	2435	<u>Size</u>	<u>Fut In Well</u>	<u>Pulled</u>
Stray Sand	3008	3026	<u>Cond.</u>	12	
Gordon Sand	3029	3048	10	365	365
1st. Pay Oil	3038		8 $\frac{1}{2}$	1507	1507
			6-5/8	2429	
Total		<u>3063</u>	5-3/16	2435	
				3067 U E Tub	
Elevation:				Torpedo Record	
Derrick floor	1173.41		Date	Qts.	Shell Top Shot
Ground	1172.11		?	60	
			10/20/13	100	7'6" 3038

Initial Prod., 32 bbls.

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WW-4A
Revised 6-07

1) Date: July 15, 2015
2) Operator's Well Number
Dorsey Baker Heirs 9
3) API Well No.: 47 - 095 - 00546

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

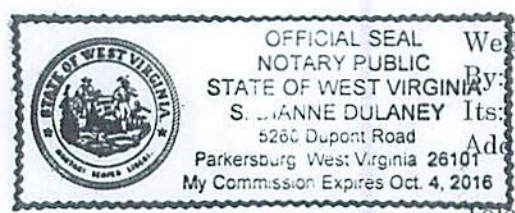
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name Dorsey Baker Estate - c/o Linda Butler	Name NA
Address 1267 51st Street	Address
Greeley, CO 80634	
(b) Name Fred Glover	(b) Coal Owner(s) with Declaration
Address HC 62, Box 53	Name NA
Jacksonburg, WV 26377	Address
(c) Name	Name
Address	Address
6) Inspector Mike Goff	(c) Coal Lessee with Declaration
Address P. O. Box 134	Name NA
Pullman, WV 26421	Address
Telephone 304-549-9823	

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 Department 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 HG Energy, LLC
 By: Diane White *Diane White*
 Agent
 Address 5260 Dupont Road
 Parkersburg, WV 26101
 Telephone 304-420-1119

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 WV Department of
 Environmental Protection

Subscribed and sworn before me this 15th day of July 2015
[Signature] Notary Public
My Commission Expires Oct. 4, 2016

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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. 10/02/2015

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7-30-15

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name HG Energy, LLC OP Code 494497948

Watershed Indian Creek Quadrangle Centerpoint 7.5"

Elevation 1172' County Tyler District McElroy

Description of anticipated Pit Waste: Fluids encountered while plugging subject well

Will a synthetic liner be used in the pit? Yes *pit must be lined with a minimum of 20 mil thickness synthetic liner. P.W.* *MDC 7-30-15*

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- Plugging

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 Department 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.

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.

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Company Official Signature Diane White

Company Official (Typed Name) Diane White

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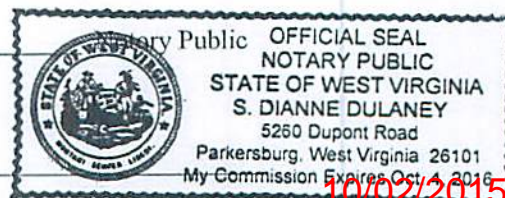
Company Official Title Agent

WV Department of
Environmental Protection

Subscribed and sworn before me this 15th day of July, 2015

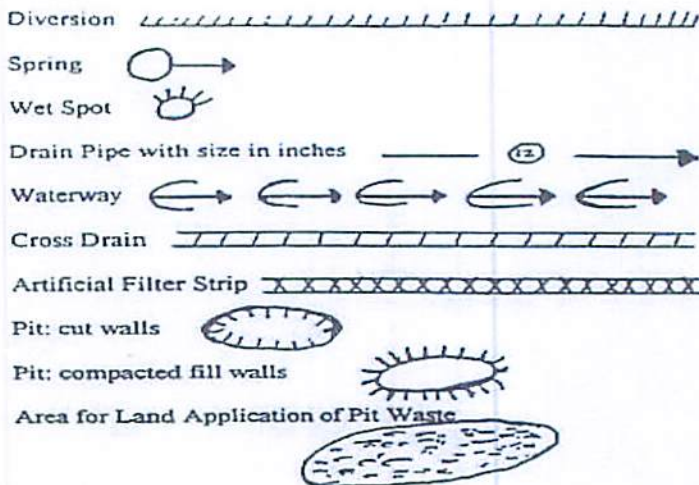
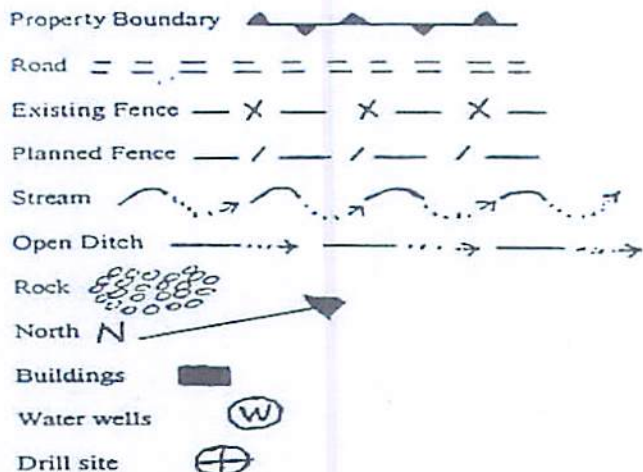
[Signature]

My commission expires Oct. 4, 2016



10/02/2015

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 0.7 acres Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre
Tall Fescue		40
Ladino Clover		5

Seed Type	Area II	lbs/acre
Tall Fescue		40
Ladino Clover		5

Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

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Plan Approved by: Michael Hoff

Comments: Preseed + Mulch any disturbed areas

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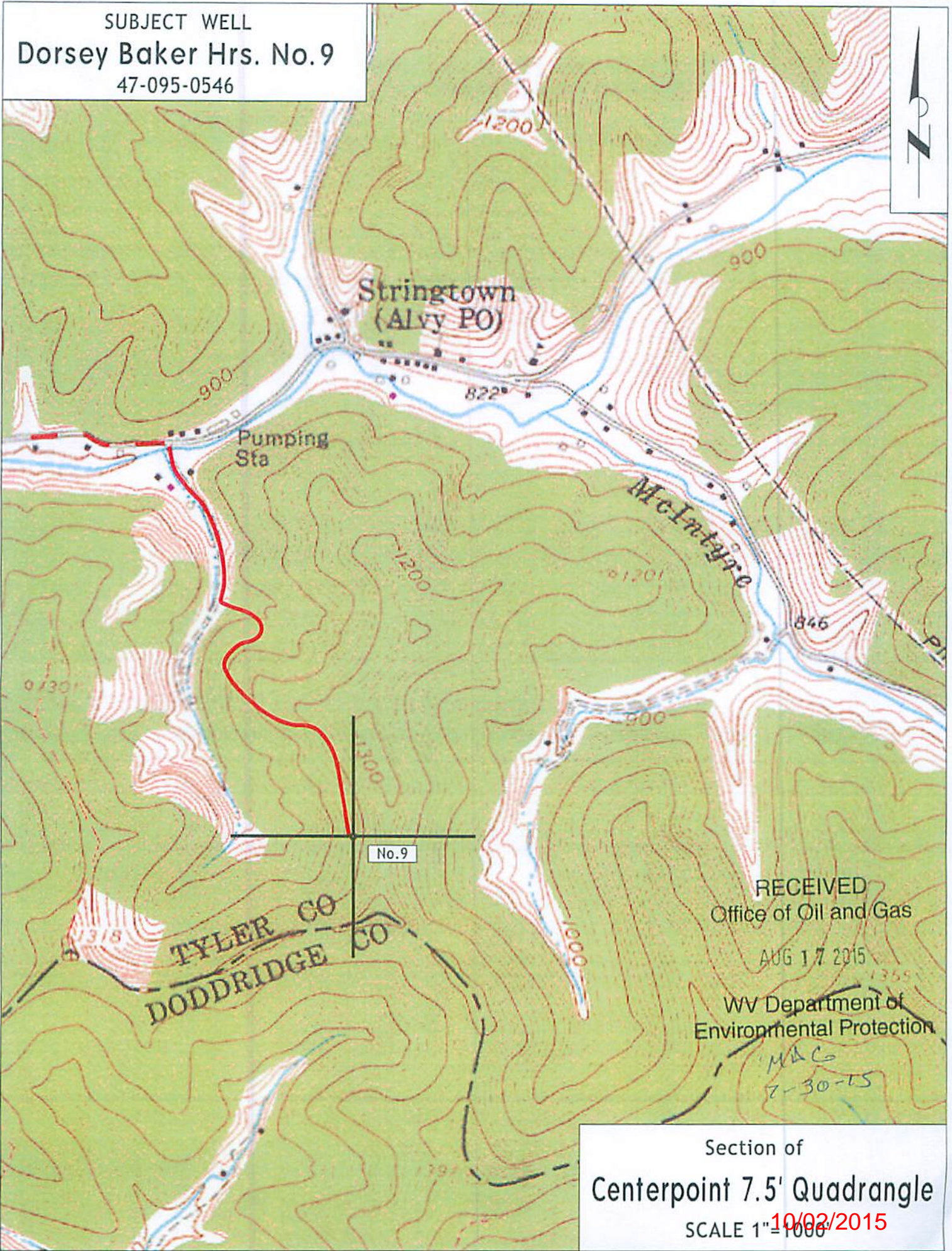
Title: Oil & Gas Inspector

Date: 7-30-15

Field Reviewed? () Yes () No

9500546P

SUBJECT WELL
Dorsey Baker Hrs. No. 9
47-095-0546



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MACs
7-30-15

Section of
Centerpoint 7.5' Quadrangle
SCALE 1"=1000'
10/02/2015

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil & Gas

WELL LOCATION FORM: GPS

API: 47- 095 - 0546 WELL NO: 9

FARM NAME: Dorsey Baker Hrs.

RESPONSIBLE PARTY NAME: H.G. Energy, LLC

COUNTY: Tyler DISTRICT: McElroy

QUADRANGLE: Centerpoint 7.5'

SURFACE OWNER: Dorsey Baker Estate et al.

ROYALTY OWNER: American Energy Partners et al.

UTM GPS NORTHING: 4,365,012 (NAD 83)

UTM GPS EASTING: 525,986 (NAD 83) GPS ELEVATION: 357 m. (1172')

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & 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	<input type="checkbox"/> Post Processed Differential	<input type="checkbox"/>
	<input type="checkbox"/> Real-Time Differential	<input type="checkbox"/>
Mapping Grade GPS	<input checked="" type="checkbox"/> Post Processed Differential	<input checked="" type="checkbox"/>
	<input type="checkbox"/> Real-Time Differential	<input type="checkbox"/>

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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.

Diane White Diane C. White
Signature

Designated Agent
Title

May 27, 2015
Date