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WR-35  
Rev. 8/23/13

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

RECEIVED  
Office of Oil and Gas

NOV 10 2014

API 47-043-03454 County LINCOLN District DUVAL  
Quad GRIFFITHSVILLE 7.5' Pad Name AUSTIN GRIFFITH Field/Pool Name GRIFFITHSVILLE  
Farm name ALLEN, TERRY & DAWNA Well Number 106  
Operator (as registered with the OOG) H.G. ENERGY LLC  
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,231,071 M Easting 415,989 M  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4,230,901 M Easting 415,950 M

Elevation (ft) 910' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
N/A

Date permit issued 5/31/2013 Date drilling commenced 9/19/14 Date drilling ceased 9/25/14  
Date completion activities began 10/21/14 Date completion activities ceased 10/23/14  
Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft N Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1300' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 438'-445' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:

**12/05/2014**

API 47-043 - 03454 Farm name ALLEN, TERRY & DAWNA Well number 106

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	549'	New	LS	84'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2573'	New	J-55		N
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 25 sks to surface on 7" surface cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	130	15.6	1.18	153	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	90/125	13.2/14.2	1.64/1.27	149/159	256'	8
Tubing							

Drillers TD (ft) <sup>2600'</sup> \_\_\_\_\_ Loggers TD (ft) <sup>2603'</sup> \_\_\_\_\_

Deepest formation penetrated <sup>Berea</sup> \_\_\_\_\_ Plug back to (ft) <sup>N/A</sup> \_\_\_\_\_

Plug back procedure <sup>N/A</sup> \_\_\_\_\_

Kick off depth (ft) <sup>650'</sup> \_\_\_\_\_

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

6 Centralizers every 84 from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

API 47- 043 - 03454 Farm name ALLEN, TERRY & DAWNA Well number 106

**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	10/21/14	2446'	2460'	84	Berea

Please insert additional pages as applicable.

**STIMULATION INFORMATION PER STAGE**

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	10/23/14	4.8	1005	2217	774		40	12 bbls HCL

Please insert additional pages as applicable.

12/05/2014

API 47- 043 - 03454 Farm name ALLEN, TERRY & DAWNA Well number 106

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Berea	2370'- 2389'	TVD 2446'- 2460' MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
Sand/Shale	0	438	0	438	
Pittsburgh Coal	438	445	438	445	
Sand/Shale	445	1650	445	1690	
Big Lime	1650	1854	1690	1906	
Big Injun	1854	1956	1906	2012	
Shale	1956	2350	2012	2422	
Coffee Shale	2350	2370	2422	2444	
Berea	2370	2389	2444	2464	
Shale	2389	2523	2464	2600	
TD	2523		2600		Drilled directional S 9° W a distance of 494'

Please insert additional pages as applicable.


Drilling Contractor Decker Drilling  
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International  
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services  
Address 5252 Rt 1428 City Allen State KY Zip 41601

Stimulating Company Producers Service Corp.  
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107  
Signature  Title Operations Manger Date 10/31/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry



43-03454

Prepared for:  
 HG Energy  
 Dustin Hendershot  
 304 481 7342



**INVOICE #:** 17466  
**WELL NAME:** A Griffith #106  
**STATE & COUNTY:** Lincoln, WV  
**TOWNSHIP/FIELD:** Griffithsville  
**DATE of SERVICE:** 10/23/2014  
**CUSTOMER PO#**

Description	Notes	Amount	Units
ACID PUMP CHARGE 2000-3000 PSI		1	EA
MILEAGE CHARGE PER UNIT ONE WAY	1 Unit @35 Miles	35	MI
IC ACID 15%		500	GAL
ACID DELIVERY		1.5	HR
PRO HIB II		0.5	GAL
PRO CLA FIRM LP		0.5	GAL
PRO NE-1		1	GAL
PRO PEN		1	GAL
DATA VAN			1 STAGE

Customer Approval: \_\_\_\_\_

12/05/2014