

PM

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

API 47-043-03455 County LINCOLN District DUVAL
Quad GRIFFITHSVILLE 7.5' Pad Name GRIFFITH, AUSTIN Field/Pool Name GRIFFITHSVILLE
Farm name ALLEN, TERRY & DAWNA Well Number 107
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 4,231,549 M Easting 416,000 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 855' 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 6/28/2014 Date drilling ceased 7/1/14
Date completion activities began 7/11/14 Date completion activities ceased 7/15/14
Verbal plugging (Y/N) N Date permission granted JUL 23 2014 Granted by _____

RECEIVED
Office of Oil and Gas

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

Freshwater depth(s) ft N/A Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1040', 1460' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 444'- 454' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

08/15/2014

API 47- 043 - 03455

Farm name ALLEN, TERRY & DAWNA

Well number 107

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"	548'	New	LS	84'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2487.55'	New	J-55		N
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 50 sks to surface on 7" surface cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	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	150	14.2	1.27	254	890'	8
Tubing							

Drillers TD (ft) 2513' Loggers TD (ft) 2516'
 Deepest formation penetrated Berea Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) N/A

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 - 03455 Farm name ALLEN, TERRY & DAWNA Well number 107

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	7/15/14	2343'	2350'	42	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	7/15/14	5.3	1078	558	830		42	15 bbls HCL

Please insert additional pages as applicable.

API 47- 043 - 03455 Farm name ALLEN, TERRY & DAWNA Well number 107

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Berea</u>	<u>2340'-2356'</u> TVD	<u>2340'-2356'</u> 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

<u>LITHOLOGY/ FORMATION</u>	<u>TOP DEPTH IN FT NAME TVD</u>	<u>BOTTOM DEPTH IN FT TVD</u>	<u>TOP DEPTH IN FT MD</u>	<u>BOTTOM DEPTH IN FT MD</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
Sand/Shale	0	444	0		
Pittsburgh Coal	444	454			
Sand/Shale	454	1618			
Big Lime	1618	1830			
Big Injun	1830	1918			
Shale	1918	2320			
Coffee Shale	2320	2340			
Berea	2340	2356			
Shale	2356	2513			
TD	2513				

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 Manager Date 7/18/14

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

43.03455

Prepared for:
HG Energy
Dustin Hendershot



Prepared by:
Producers Service Corp
Chris Bryan
109 S. Graham St.
Zanesville, OH 43702
740-454-6253

CUSTOMER PO#

Description	Notes	Amount	Units	Unit Cost	Total Cost
ACID PUMP CHARGE 1000-2000 PSI		1	EA		
MILEAGE CHARGE PER UNIT ONE WAY	1 Unit @ 50 Miles	50	MI		
IC ACID 15%		500	GAL		
ACID DELIVERY		2	HR		
PRO HIB II		0.5	GAL		
PRO CLA FIRM LP		0.5	GAL		
PRO NE-1		0.5	GAL		
PRO PEN		0.5	GAL		
DATA VAN		1	STAGE		

Customer Approval: _____

08/15/2014