

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

API 47-033-05756 County HARRISON District TEN MILE
Quad WOLF SUMMIT 7.5' Pad Name WILLIAMS, W.F. Field/Pool Name WOLF SUMMIT
Farm name HUFFMAN, BRIAN V. Well Number 131
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 4,347,052 M Easting 543,327 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,347,161 M Easting 543,424 M

Elevation (ft) 1173' 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 7/3/13 Date drilling commenced 4/14/15 Date drilling ceased 4/17/15
Date completion activities began 4/27/15 Date completion activities ceased 4/29/15
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

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

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Freshwater depth(s) ft 195' Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 428'- 434' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED Reviewed by: _____

NAME: Sam Ward
DATE: 1/5/17

02/03/2017

API 47-033 - 05756

Farm name HUFFMAN, BRIAN V.

Well number 131

CASING STRINGS	Hoie 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"	507'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2903'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 25 sks to surface on 7" surface cement job. Circulated Est. 25 sks to surface on 4 1/2" 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	110	15.6	1.18	130	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	110/150	13.2/14.2	1.64/1.27	180/186	Surface	8
Tubing							

Drillers TD (ft) 2940' Loggers TD (ft) 2936'
 Deepest formation penetrated Fifth Sand Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 550'

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

20 Centralizers every 88 from bottom on 4 1/2". Centralizer placed mid string on 7"

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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 _____

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API 47- 033 - 05756 Farm name HUFFMAN, BRIAN V. Well number 131

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Fifth Sand</u>	<u>2734'- 2742'</u> TVD	<u>2780'- 2787'</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

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 ₂ S, ETC)
Sand/Shale	0	428	0	428	
Pittsburgh Coal	428	434	428	434	
Sand/Shale	434	1768	434	1792	
Big Lime	1768	1848	1792	1872	
Big Injun	1848	1918	1872	1946	
Shale	1918	2330	1946	2367	
Fifty Foot	2330	2342	2367	2380	
Shale	2342	2424	2380	2464	
Sand	2424	2586	2464	2628	
Shale	2586	2734	2628	2780	
Fifth Sand	2734	2742	2780	2787	Drilled directional N 54.7° E a distance of 430'
Shale	2742	2894	2787	2940	
TD	2894		2940		

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 11000 Performance PL City Youngstown State OH Zip 44502

Cementing Company Universal Services
 Address 14 Sewer Plant Rd City Buckhannon State WV Zip 26201

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 12/10/15

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

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Prepared for:
Dustin Hendershot



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

INVOICE #:	18503
WELL NAME:	W. F Williams 131
COUNTY/STATE:	Harrison/WV
TOWNSHIP/FIELD:	Wolf Summit
DATE of SERVICE:	4/29/2015
CUSTOMER PO#:	

Description	Notes	Amount	Units	Unit Cost	Total Cost
FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS		1	EA		
BLENDER CHARGE 0-10 BPM		1	EA		
MILEAGE CHARGE PER UNIT ONE WAY	2 Units @ 70miles each	0	MI		
IC ACID 15%		300	GAL		
PRO HIB II		0.5	GAL		
ACID DELIVERY		2	HR		
PERF BALLS 7/8" 1.3		40	EA		
PRO CLA LOK (KCL SUBSTITUTE)		20	GAL		
PRO NE-21		10	GAL		
PRO A GEL		250	LB		
BUFFER I		50	LB		
BUFFER II		50	LB		
BIO CLEAR 750		1	LB		
AP BREAKER		22	LB		
BXL-A		15	GAL		
BXL-10C		15	GAL		
FLOW METER 2INCH		1	EA		
MANUAL PERFBALL INJECTOR		1	EA		
DATA VAN		1	STAGE		
SAND 20/40 OTTAWA		150	CWT		
SAND DELIVERY / TON MILES		525	TMILE		

Customer Approval: _____

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