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

043			
API <u>47</u> <u>03523</u>	County LINCOLN	District DUVAL	
Quad GRIFFITHSVILLE 7.5'	Pad Name GRIFFITH, AUSTI	N Field/Pool Name	BRIFFITHSVILLE
Farm name HG ENERGY, LLC		Well Number159	
Operator (as registered with the OOG)	I.G. ENERGY LLC		
Address 5260 DuPONT ROAD	City PARKERSBURG	State WV	Zip 26101
_	Attach an as-drilled plat, profile v	view, and deviation survey Easting 415,409 M	
	rthing	Easting 415 632 M	
Bottom Hole No.	rthing 4,231,311 M	Easting 415,632 M	
Elevation (ft) 688' GL	Type of Well □New ■ Exis	ting Type of Report	□Interim ≜ Final
Permit Type Deviated Horiz	zontal 🗆 Horizontal 6A 🗆 Ve	ertical Depth Type	□ Deep 💄 Shallow
Type of Operation □ Convert □ Deep	pen 🗆 Drill 🗆 Plug Back	□ Redrilling ■ Rework	■ Stimulate
Well Type □ Brine Disposal □ CBM	Gos GOil G Secondary Recove	ery G Solution Mining G St	torage Other Injection
Well Type Brille Bisposur B cBivi	1 Gas 2 Gh 2 Secondary Recove	ny a bolanon raming a se	<u></u>
Type of Completion ■ Single □ Multip Drilled with □ Cable □ Rotary	le Fluids Produced □ Brine	□Gas □ NGL ♣ Oil	□ Other
Drilling Media Surface hole □ Air	□ Mud □Fresh Water Interr	nediate hole □ Air □ Mud	d □ Fresh Water □ Brine
Production hole	resh Water 🗆 Brine		
Mud Type(s) and Additive(s) N/A			
Date permit issued2/5/21	Date drilling commenced	N/A Date drilling	ceased N/A
Date completion activities began	5/13/21 Date comple	tion activities ceased	5/13/21
Verbal plugging (Y/N) N Dat	e permission granted	Granted by	
Please note: Operator is required to subm	it a plugging application within 5 d	lays of verbal permission to p	olug
Freshwater depth(s) ft70'	, 90' Open mine(s)	(Y/N) depths	None
Salt water depth(s) ft 800)' Void(s) encou	intered (Y/N) depths	None
Coal depth(s) ft 296'- 30	O2' Cavern(s) enc	ountered (Y/N) depths	None
Is coal being mined in area (Y/N)	N		
			Reviewed by:

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API 47- 087	03523	Farm na	me_HG ENE	RGY, LLC		We	ll number_15	9	
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)	Did cem	nent circulate (Y/N) de details below*
Conductor	12 1/4"	11 5/8"	30'	Used		S/NA	Deptii(s)	11001	Existing
Surface	8 3/4"	7"	338'	New		S/17	64'		Existing
Coal	0 0/4	,	000	11011		0,11	Ţ.	-	
Intermediate 1									
Intermediate 2									
Intermediate 3									
Production	6 1/4"	4 1/2"	2483.9'	New	J-5	5/10.5			Existing
Tubing		2 3/8"	2275.8'	New		55/4.7			
Packer type and d	epth set	2 0/0	2270.0	11011		707 111			
CEMENT	Class/Type	n 7" surface cement jo Number	Slurr	у 5	4 1/2" cemer (ield : 3/sks)	Volume	Cem Top (WOC (hrs)
DATA Conductor	of Cement	of Sacks	wt (pp	og) (11	. /SKS)	(11.7)	Top (r	(ID)	(IIIS)
Surface	Reg Neat	90	15.6	3	1.18	106	Surfa	ace	Existing
Coal	110g 110dt		10.0						
Intermediate 1									
Intermediate 2									
Intermediate 3									
Production	50:50 Pozmix	105/12	5 13.2/14	4.2 1.6	4/1.27	172/186	90	,	Existing
Tubing									
Drillers TD (ft Deepest forma Plug back pro-	tion penetrated	Berea	-	Loggers T Plug back					
Kick off depth Check all wire		■ caliper	density		ed/directio		nduction temperature	□sonic	,
Well cored [Yes No	Convention			-		s collected		
DESCRIBE TI	HE CENTRALI	ZER PLACEME	ENT USED FO	R EACH CA	ASING ST	TRING _			
=	COMPLETED A								
WAS WELL C	COMPLETED O	PEN HOLE?	□ Yes 💄 N	o DETA	AILS				

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED ___

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API 47- 087 _ 03523

Farm name_HG ENERGY, LLC

_Well number_159

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	10/6/15	2370'	2380'	40	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	10/8/15	4	944	2066	943	1,000	146	
1	5/13/21	4.5	1771	N/A	1428	5,000	104	

Please insert additional pages as applicable.

API 47- 087	_ 03523	Farm	name HG EN	ERGY, LL	С	Well	number	159		
PRODUCING Berea	FORMATION(<u>DEPTHS</u> 2170'- 2192'	TVD	2362'- 2386'	MD				
Disco ingout of	disional massas	a ampliachla				_				
Please insert ad			- O FI		OH TROT -	. 171	- D			
GAS TEST	-		-				_			
SHUT-IN PRE	SSURE Surf	ace				DURA	TION C	OF TES	T	hrs
OPEN FLOW	Gas mcf	Oil pd	NGL bpd	_ bpd _	Water bpd	GAS N □ Estin				⊐ Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN I MD	FT DESCRIBI					TITYAND GAS, H ₂ S, ETC)
Sand/Shale	0	296	0	296				,	, ,	
Pittsburgh Coal	296	302	296	302						
Sand/Shale	302	1444	302	1556						
Big Lime	1444	1654	1556	1797						
Big Injun	1654	1760	1797	1920						
Shale	1760	2149	1920	2342						
Coffee Shale	2149	2170	2342	2362						
Berea	2170	2192	2362	2386	Dr	illed directi	onal N	73.5° E	a distan	ce of 811'
Shale	2192	2341	2386	2542						
TD	2341		2542							
						-				
Please insert ad	ditional pages a	s applicable.								
Drilling Contract	otor Decker Drill	ina								
Address 11565 S	State Route 676		City	Vincent		State	ОН	Zip	45784	
Logging Compa	weatherford	International		V	_	_	ΟH		44500	
Address 11000 F	Performance PL		City	Youngstown	1	State	ОН	Zip	44502	
Cementing Com Address 14 Sew	npany Universal er Plant Rd	Services	City	Buckhannor	1	State	WV	Zip	26201	
Stimulating Cor	_{mnany} Produc	ers Service Cor	'n.							
Address 109 Sou	iipuiij		City	Zanesville		State	ОН	Zip	43701	
Please insert ad								_ •:		
Completed by	Roger,Heldman	/			Telephon	e 304-420	-1107			
Signature	for De	eldra-	Title O	perations Mar	nager		Date 6	/2/21		
Submittal of Hy	draulic Fracturi	ing Chemical I	Disclosure Infor	rmation	Attach copy	of FRACI	FOCUS	Regist	ry	

Prepared for:					Prepared by:	
					Producers Service Corp	
HG					Joe Stevens	
		BAARUAFRA			109 S. Graham St.	
Dustin Hendershot		— PRODUCERS — SERVICE CORP.			Zanesville, OH 43702	
		OPHINGE AAUL!			740-454-6253	
FIELD TICKET: 26	5322				110 10 1 0 100	
WELL NAME: A	ustin Griffith # 159					
CONTRACTOR OF THE PARTY OF THE	incoln WV	THE RESIDENCE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS				
	awkey					
	13/2021					
CUSTOMER PO#:	15/2021					
Description		Notes	Amount	Units	Unit Cost	Total Cost
ACID PUMP CHARGE 0-1000	PSI		1	EA		
FLUID PUMP CHARGE 0-3000			1	EA		
MILEAGE CHARGE PER UNIT			0	MI		
IC ACID 15%			250			
4N1 INHIBATOR			0.5	GAL		
Acid Delivery			2	HR		
PRO CLA FIRM LP			5	GAL.		
PRO NE-21			5			
PRO GEL 4.0	•		40	GAL		
BXL-A			10			
BXL-10C			10	GAL		
AP Breaker			10	LB		
SAND 20/40 OTTAWA	<i>y</i>		50		1	
SAND DELIVERY / TON MILES	i			TMILE		
DATA VAN	1		1	STAGE		
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