

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

API <u>47</u> - 043 _ 03488	County LINCOLN	District DUVAL			
Quad GRIFFITHSVILLE 7.5'	Field/Pool Name	Field/Pool Name GRIFFITHSVILLE			
Farm name COY, RANDALL & PATR		Well Number 229			
Operator (as registered with the OOG) H	.G. ENERGY LLC				
Address 5260 DuPONT ROAD	City PARKERSBURG	State WV	Zip 26101		
Landing Point of Curve North	Attach an as-drilled plat, profile vie thing 4,232,186 M hing	Easting 415,870 M Easting Easting Easting			
Elevation (ft) 960' GL	Type of Well ■New □ Existing	ng Type of Report	□Interim ■Final		
Permit Type   Deviated   Horiz	ontal   Horizontal 6A   Vert	ical Depth Type	□ Deep ■ Shallow		
Type of Operation □ Convert □ Deep	en ■ Drill □ Plug Back □	Redrilling   Rework	□ Stimulate		
Well Type □ Brine Disposal □ CBM □	Gas ■ Oil □ Secondary Recovery	□ Solution Mining □ S	torage   Other		
Type of Completion ■ Single □ Multipl	e Fluids Produced 🗆 Brine (	⊐Gas □ NGL ■ Oil	□ Other		
Drilled with □ Cable ■ Rotary					
Drilling Media Surface hole ■ Air □	Mud Bresh Water Interme	diate hole	d ■ Fresh Water □ Brine		
•	esh Water 🖪 Brine				
Mud Type(s) and Additive(s)  N/A			RECEIVED Office of Oil and Gas		
			and Gas		
Date permit issued 6/29/15	Date drilling commenced 10/2	27/15 Date drilling	DEC 0 10/29/15		
Date completion activities began	11/4/15 Date completion	n activities ceased	1/1/1/6/15		
Verbal plugging (Y/N)N Date	permission granted	Granted by	ronmental Protection		
Please note: Operator is required to subm	t a plugging application within 5 day	ys of verbal permission to	plug		
Freshwater depth(s) ftNo	ne Open mine(s) (	Y/N) depths	None		
Salt water depth(s) ft 1176	)' Void(s) encoun	tered (Y/N) depths	None		
Coal depth(s) ft 565'- 57	101	intered (Y/N) depths	None		
Is coal being mined in area (Y/N)	N				

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API 47- 043	_ 03488	Farm na	ame COY, R	ANDALL &	R PATRIC	CIA Well i	number_22	<u> 19</u>	
CASING	Hole	Casing		New or	Grade	F	asket	Did cer	nent circulate (Y/N)
STRINGS	Size	Size	Depth	Used	wt/ft				ide details below*
Conductor	12 1/4"	11 5/8"	30'	Used		LS			Sand in
Surface	8 3/4"	7"	636'	New		LS	64'		Υ
Coal									
Intermediate 1	1						-		
Intermediate 2		-							
Intermediate 3									
Production	6 1/4"	4 1/2"	2598.7'	New		J-55	-		Υ
Tubing					†				-
Packer type and d	epth set			<u> </u>		<u> </u>			
Comment Details	Circulated Est. 50	sks to surface on 7" sur	face cement job. Cin	culated Est. 13 s	ks to surface o	on 4 1/2" cement jo	b.		
CEMENT DATA	Class/Type of Cement	Numbe of Sack			Yield ft <sup>3</sup> /sks)	Volume (ft. <sup>1</sup> )	Cen Top (		WOC (hrs)
Conductor									
Surface	Reg Neat	160	15.	6	1.18	189	Sur	face	8
Coal									
Intermediate 1									
Intermediate 2									
Intermediate 3									
Production	50:50 Pozmi	x 110/12	5 13.2/1	14.2 1	.64/1.27	180/186	7	0'	8
Tubing	1				·				
Drillers TD (fl	F) 2630'			Loggers	TD (ft) 25	94'			
•	tion penetrated	Berea			k to (ft) <u>~</u>				
Plug back pro	-								
Kick off depth	ı (ft) <u>650'</u>								
Check all wire	eline logs run	■ caliper ■ neutron	■ density ■ resistivity		ated/direct na ray		luction mperature	□soni	c
Well cored	⊐ Yes ■ No	Conventi	onal Side	ewall	W	ere cuttings	collected	■ Yes	⊐ No
		IZER PLACEM	ENT USED FO	OR EACH (	CASING S	TRING	WED		
						MECE Mico of C	il and c	<del>100</del>	
						MILLO C.			
						DEC (	1 2015	-	
WASWELL	COMPLETED	AS SHOT HOLE	E □ Yes 🖪	No I	DETAILS	<b>D</b> •-		⊾ of	
WAS WELL	COMI ELTED	AS SHOT HOLI		110 1	LIMES	MA Det	oarlmer	<del>γ Οι</del>	
						- AA A - MO	ntal Pro	tection	-
WAS WELL	COMPLETED	OPEN HOLE?	□ Yes 🛔 1	No DE	TAILS E	WV Det nvironme			
			<del></del>						
WERE TRAC	ERS USED	Yes 🖪 No	TYPE OF T	ΓRACER(S	USED _				

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API 47- 043 \_ 03488 Farm name COY, RANDALL & PATRICIA Well number 229

## PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	11/4/15	2448'	2458'	40	Berea
<del></del>				<del>  _</del>	
				<u> </u>	
				_	
	-				
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				1	

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	11/6/15	4	1314	2425	1421	1,000	153	
								-
				<u> </u>			_	
						-		
		-		-				
<u> </u>								
<u> </u>	<del> </del>							and Gas
-						<del> </del>	BECEIV	1 C28
				-			an of Oil	and Gae
						Om	CG 4.	2100
				_			DEC 0 1	<u> </u>
							ULU '	-+ Of
						l	RU Depa	rtmeni
Dia	:		-li-abla			'	Wy Dop	ial Protection
Piease	insert additio	onal pages as ap	рисавіе.			En	W.Oungi.	rtment of al Protection

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API 47- 043	_ 03488	Farm	name COY, RA	ANDALL 8	& PATRICIA	Well r	umbe	<sub>r</sub> 229	
PRODUCING 1	FORMATION(	<u>(S)</u>	DEPTHS						
Berea			2444'- 2466'	TVD		MD			
3000000									
				_					
-				= 0 1 '					
Please insert ad	ditional pages a	as applicable.							
GAS TEST	□ Build up □	□ Drawdown	□ Open Flow		OIL TEST 🗆	Flow $\square$	Pump	)	
SHUT-IN PRE	SSURE Surf	face	_psi Botto	m Hole	psi	DURAT	TION	OF TEST	hrs
OPEN FLOW	Gas	Oil	NGL		Water	GAS M	ŒASI	JRED BY	
OI LIVI LOW	mc1		bpd	bpd _	bpd	□ Estin	nated	□ Orifice	e □ Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP	BOTTOM	I FT DESCRIBE	ROCK TVI	PE AND	RECORD O	HANTITYAND
FORMATION	NAME TVD	TVD	MD	MD					OIL, GAS, H <sub>2</sub> S, ETC)
Sand/Shale	0	565	0						
Pittsburgh Coal	565	572							
Sand/Shale	572	1730							
Big Lime	1730	1930							
Big Injun	1930	2034							
Shale	2034	2423							
Coffee Shale	2423	2444							
Berea	2444	2466							
Shale	2466	2630							
TD	2630								
Please insert ad	ditional pages	as applicable.							
Drilling Contra	ctor Decker Dri	lling							
Address 11565	State Route 676		City	Vincent		State	ОН	Zip 45	784
		No. of Physics							
Logging Comp	any Weatherfor	d International					011	3.00	500
Address 11000	Performance PL		City	Youngstow	'n	State	ОН	Zip <u>44</u>	502
Cementing Cor	npany Universa	al Services					92 202		100
Address 14 Sew	ver Plant Rd		City	Buckhanno	n	State	WV	Zip _26	201
0.1 1 1 2	Drodu	care Sanica Co	orn					B	ECEIVED Gas
Address 109 So	mpany Production Produ	et	City	Zanesville		State	ОН	OHIC43	701 OII allo
	lditional pages	TO THE STATE OF TH	City			State			FOEL O 1 2015
		E ACTION OF THE PERSON OF THE			20.00	204 400	4407	1	JEC U I
	Roger Heldma	7/11			Telephone	e 304-420	-1107		tmant OI
Signature	Berk	elara	Title _O	perations Ma	inager		Date_	11/30/10/V	Department of nmental Protection
Submittal of H	ydraulic Fractu	ring Chemical	Disclosure Info	mation	Attach copy	of FRACI	FOCU	S Registry	111.75

Prepared for:

**HG Energy** 

**Dustin Hendershot** 

304-481-7342



Prepared by:

**Producers Service Corp** 

George Meredith

109 S. Graham St.

Zanesville, OH 43702

740-454-6253

INVOICE #:	19223	
WELL NAME:	E J May #229	
STATE & COUNTY:	Lincoln County, WV	
TOWNSHIP/FIELD:	Griffithsville	
DATE of SERVICE:	11/6/2015	

**CUSTOMER PO#** 

Description	Notes	Amount	Units	Unit Cost	Total Cost
3LENDER CHARGE 0-10 BPM		1			
FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS		1			
VIILEAGE CHARGE PER UNIT ONE WAY		133.3			
SAND 20/40 OTTAWA		10			
SAND DELIVERY / TON MILES		33			
C ACID 15%		250			
ACID DELIVERY		2		5 - 1 (H)	
PRO CLA LOK (KCL SUBSTITUTE)		10			
PRO NE-21		10			
RONTROL		50		All the second	
PRO GEL 4		150			
3UFFER I		50		91 4//	
3IO CLEAR 750		1		St. St. St.	
DATA VAN		1		E	
					- 4
		7		_	
Customer Approval:					

Office of Oil and Gas

DEC 0.1 2015

WV Department of
Environmental Protection

02/19/2016