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

Page 1 of 4
W RECEIVED MORGANICA
MORGANTONN SURVEY
IN MIRVEY

API 47 - 043 _ 03461 _ County LINCOL	N District DUVAL								
Quad GRIFFITHSVILLE 7.5' Pad Name J.A. F	OWLER Field/Pool Name GF	RIFFITHSVILLE							
Farm name MCCLURE, ANDY J. & REBECCA Well Number 114									
Operator (as registered with the OOG) H.G. ENERGY LLC	<u> </u>								
Address 5260 DuPONT ROAD City PAR	RKERSBURG State WV	Zip <u>26101</u>							
As Drilled location NAD 83/UTM Attach an as-drille Top hole Northing 4,231,170 M Landing Point of Curve Northing Bottom Hole Northing	Easting								
Elevation (ft) 917' GL Type of Well	New □ Existing Type of Report	□Interim ≜ Final							
Permit Type Deviated Horizontal Horizontal	tal 6A	□ Deep ■ Shallow							
Type of Operation □ Convert □ Deepen ■ Drill □	Plug Back □ Redrilling □ Rework	□ Stimulate							
Well Type □ Brine Disposal □ CBM □ Gas □ Oil ■ Sec	ondary Recovery Solution Mining Stor	rage 🗆 Other							
Type of Completion ■ Single □ Multiple Fluids Production ■ Cable ■ Rotary	ced □ Brine □Gas □ NGL ■ Oil	□ Other							
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 completion activities began 9/4/14		9/8/14							
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) ft330'	Open mine(s) (Y/N) depths	N							
Salt water depth(s) ft 920', 1290'	Void(s) encountered (Y/N) depths	N							
Coal depth(s) ft 480'-485'	Cavern(s) encountered (Y/N) depths	N1							
Is coal being mined in area (Y/N) N		Reviewed by:							

Rev. 8/23/13									· — —	
API 47- 043	47- 043 - 03461 Farm name MCCLURE, ANDY J. & REBECCA Well number 114									
CASING STRINGS	Hole Casing Size 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'		Υ	
Coal										
Intermediate 1										
Intermediate 2										
Intermediate 3										
Production	6 1/4"	4 1/2"	2520'	New	J-55				Υ	
Tubing				1000 1000 1000						
Packer type and de	epth set									
Comment Details Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 25 sks to surface on 4 1/2" cement job. CEMENT Class/Type Number Slurry Yield Volume Cement WOC DATA of Cement of Sacks wt (ppg) (ft 3/sks) (ft 3/2) Top (MD) (hrs)										
DATA Conductor	of Cement	of Sacks	wt (pp	b) (1	7010)	111 1	1	(MD)	(hrs)	
Surface	Reg Neat	135	15.6	1	.18	159	Sur	face	8	
Coal	<u> </u>									
Intermediate 1										
Intermediate 2									22	
Intermediate 3										
Production	50:50 Pozmix	85/125	13.2/14	1.2 1.6	4/1.27	139/159	2	54'	8	
Tubing										
Drillers TD (ft) 2540' 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										
	HE CENTRALI om bottom on 4 1/2*, Centrali		NT USED FO	R EACH CA	ASING ST	TRING				
									STATE OF THE STATE	
WAS WELL C	COMPLETED A	S SHOT HOLE	□ Yes ■	No DE	ETAILS .			>		
WAS WELL C	COMPLETED C	PEN HOLE?	□ Yes ■ No	o DETA	AILS					

WERE TRACERS USED ☐ Yes ■ No TYPE OF TRACER(S) USED _____

API 47- 043 _ 03461

Farm name_MCCLURE, ANDY J. & REBECCA_Well number_114

PERFORATION RECORD

Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
9/8/14				Berea
				23.00
		2.22		
		200		
	1.00			
	Course of Section 1	_		
		Perforation date MD ft. 9/8/14 2390'	Perforation date MD ft. MD ft. 9/8/14 2390' 2404'	Perforation date MD ft. Perforations 9/8/14 2390' 2404' 84

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	9/8/14	4	962	1709	856		38	12 bbls HCL
34500								
					× × × × × × × × × × × × × × × × × × ×			
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					V. 1000			

Please insert additional pages as applicable.

API 47- 043	_ 03461	Farm	name MCCLU	RE, ANDY	J. & REBEC	CA _{Well}	number	114	
PRODUCING	FORMATION	<u>(S)</u>	DEPTHS						
Berea			2390'- 2404'	TVD		MD			
				_ 1 \ D		WID			
-			~~~						
Please insert ad	ditional pages a	as applicable.		 					
GAS TEST	□ Build up	Drawdown	□ Open Flow		OIL TEST	Flow	□ Pump		
SHUT-IN PRE	SSURE Surf	face	_psi Botto	m Hole	psi	DURA	TION C	OF TEST	hrs
OPEN FLOW	Gas	Oil	NGL		Water	GASI	MEASI	RED BY	
	mci	fpd	bpd	_ bpd _	bpd				□ Pilot
LITHOLOGY/	TOP	воттом	TOP	BOTTOM	1				
FORMATION	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT	DEPTH IN I	FT DESCRIBE	ROCK TY	PE AND	RECORD QUAI	NTITYAND
	NAME TVD	TVD	MD	MD	TYPE OF F	LUID (FRE	ESHWAT	ER, BRINE, OIL	, GAS, H ₂ S, ETC)
Sand/Shale	0	480	0						
Pittsburgh Coal	480	485							
Sand/Shale	485	1668							
Big Lime	1668	1867							
Big Injun	1867	1963							
Shale	1963	2358							
Coffee Shale	2358	2379							
Berea	2379	2406							
Shale	2406	2540							
TD	2540								
								411	
									NUC 20 N 12 CARPO 19-14
Please insert ad	ditional pages a	s applicable.							
Drilling Contract	ctor Decker Dril	ling							
Address 11565 S	State Route 676		City	Vincent		State	ОН	Zip 45784	
W						51410		Zip	
Logging Compa	any Weatherford	International							
Address 777 Nor	th River Avenue		City	Weston		State	WV	Zip _26452	
2	(1-5	0							
Cementing Com		Services					101	11001	
Address 5252 Rt	1428		City	Allen		State	KY	Zip <u>41601</u>	
Stimulating Cor	nnany Produc	ers Service Cor	p.						
Address 109 Sou			City	Zanesville	-	State	ОН	Zip 43701	
Please insert add			City			State			
Completed by	Roger Heldman	i a			Tolombore	304-420	-1107		
Signature	/ //	1600	Telephone 304-420-1107 — Title Operations Manager Date 10/15/14				- And Andrews		
orgnaturei	ya,	yet at	11110 01		301		Date_1		

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Prepared for: Prepared by: HG Energy **Producers Service Corp** Dustin Hendershot Chris Bryan 304 771 5432 109 S. Graham St. SERVICE CORP. Zanesville, OH 43702 740-454-6253 INVOICE #: 16781 WELL NAME: JA Fowler #114 STATE & COUNTY: Lincoln, WV TOWNSHIP/FIELD: Griffthsville DATE of SERVICE: 9/8/2014 **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 HR \$ 2 PRO HIB II 0.5 GAL PRO CLA FIRM LP 0.5 GAL PRO NE-1 0.5 GAL **PRO PEN** 1 GAL DATA VAN 1 STAGE \$

Customer Approval: