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

API <u>47</u> - 087 _ 04752	County	District SMITHFIE	LD
Quad LOONEYVILLE 7.5'	Pad Name FERRELL, C.B.	Field/Pool Name C	LOVER
Farm name MAY, TIMOTHY D.		Well Number 202	
Operator (as registered with the OOG)	H.G. ENERGY LLC	The state of the s	
Address 5260 DuPONT ROAD	City PARKERSBURG	State WV	Zip 26101
As Drilled location NAD 83/UTM Top hole I Landing Point of Curve Bottom Hole I Elevation (ft) 1,110' GL Permit Type Deviated Hole Type of Operation Convert D Well Type Brine Disposal CBM Type of Completion Single Mult Drilled with Cable Rotary Drilling Media Surface hole Air	Attach an as-drilled plat, profile view Northing 4,285,441 M Northing Northing Type of Well New Existing prizontal Horizontal 6A Verticate Plug Back From Gas Oil Secondary Recovery tiple Fluids Produced Brine	Easting 475,629 M Easting 775,629 M Easting 775,	□Interim ■Final □ Deep ■ Shallow □ Stimulate □ rage □ Other □ Other □ Here □ Brine
N/A		Office of	Oli & Gas
		APR S	2 3 2015
	Date drilling commenced1/23. 3/23/15 Date completion Date permission granted abmit a plugging application within 5 days	activities ceased Granted by	3/26/15
Frankrichen deuth(a) A	None Open mine(s) (Y	/N) depths	None
Freshwater depth(s) ft1	Tool Open mine(s) (1	ered (Y/N) depths	None
sait water depth(s) it	void(s) encounte	ntered (Y/N) depths	None
Is coal being mined in area (Y/N)	NI Cavern(b) encoun	mercu (1/11) depuis	
is coal being fillied in area (1714)			Reviewed by: AL. 5/26/15 V W.S. 6198712/20

API 47- 087	- 04752	Farm n	_{ame} MAY, TI	MOTHY D	_	We	ll number_20	02	
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)		nent circulate (Y/ Nide details below*
Conductor	12 1/4"	11 5/8"	30'	Used		LS			Sand In
Surface	8 3/4"	7"	508'	New	1	LS	64'		Y
Coal								İ	
Intermediate 1									
Intermediate 2				1					
Intermediate 3									
Production	6 1/4"	4 1/2"	2320.15'	New	J	-55			Υ
Tubing									
Packer type and de	epth set			_1	-1				
Comment Details	Circulated Est. 50	sks to surface on 7" su	rface cement job. Cir	culated Est. 20 sk	s to surface or	n 4 1/2" cemen	ı job.	·	
CEMENT DATA	Class/Type of Cement	Numb of Sac			Yield t ³/sks)	Volume (ft ³)		ment (MD)	WOC (hrs)
Conductor Surface						_			
	Reg Neat	130	15.	6	1.18	153	Sui	face	8
Coal									
Intermediate 1								-	
Intermediate 2									
Intermediate 3									
Production	50:50 Pozm	ix 90/12	5 13.2/	14.2 1.0	34/1.27	148/18	6 ;	50'	8
Tubing									
Drillers TD (ft) 2330' tion penetrated	Big Injun		Loggers 7				•••	
Plug back pro	-								
Kick off depth	(ft) <u>N/A</u>								
Check all wire	line logs run	■ caliper ■ neutron	■ density ■ resistivity		ted/directi a ray		induction temperature	□son	ic
Well cored	Yes No	Convent IZER PLACEM trailizer placed mid string on 7	ional Side	ewall	W	ere cutting	s collected	1800 111 & C	□ No Na S
DESCRIBE 11 20 Centralizers every 88 f	HE CENTRAL from bottom on 4 1/2*, Cent	LIZEK PLACEIV. tralizer placed mid string on 7	ENI USED FO	JR EACH C	ASING S	G	HICE O.	0015	
							APR 2	3 5013	
									
WAS WELL (COMPLETED	AS SHOT HOL	E □Yes ■	No D	ETAILS				
WAS WELL O	COMPLETED	OPEN HOLE?	□ Yes ■ ?	No DET	AILS				
		Yes No		ΓRACER(S)					

API 47- 087 - 04752	Farm name_MAY, TIMOTHY D.	Well number_202

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	3/23/15	2146'	2156'	40	Big Injun

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stimulations	Ave Pump	Ave Treatment	Max Breakdown	ICID (DCI)	Amount of	Amount of	Amount of Nitrogen/other (units)
							Willogenzouler (units)
0,20,10	J	020	1200		2,000		
	-						
	_						
	-						
						,	
					Rec	©i∨≎d	
					Office ((31) B C	25
					Other	- 0 2015	
			-		APR	23 2003	
					1		
					†		-
			<u> </u>				
	Stimulations Date 3/26/15	Date Rate (BPM)	Date Rate (BPM) Pressure (PSI)	Date Rate (BPM) Pressure (PSI) Pressure (PSI)	Date Rate (BPM) Pressure (PSI) Pressure (PSI) ISIP (PSI) 3/26/15 5 620 1250 709	Date Rate (BPM) Pressure (PSI) Pressure (PSI) ISIP (PSI) Proppant (Ibs) 3/26/15 5 620 1250 709 2,500	Date Rate (BPM) Pressure (PSI) Pressure (PSI) ISIP (PSI) Proppant (lbs) Water (bbls)

Please insert additional pages as applicable.

WR-35 Rev. 8/23/13

API 47- 087	_ 04752	Farm	name MAY, TI	MOTHYD		Well r	number	202
PRODUCING I	FORMATION(<u>S)</u>	<u>DEPTHS</u>					
Big Injun			2138'- 2162'	TVD		MD		
				_				
Please insert ad	ditional pages a	s applicable.						
GAS TEST	□ Build up □	Drawdown	□ Open Flow	(DIL TEST 🗆	Flow [Pump	
SHUT-IN PRES	SSURE Surf	ace	_psi Botto	m Hole	psi	DURAT	TION C	OF TEST hrs
OPEN FLOW	Gas	Oil	NGL		Water	GASN	/EASI	IRED BY
	mcf	pd	bpd	bpd _	bpd	□ Estir	nated	□ Orifice □ Pilot
	TOR	DOTTOM	TOD	DOTTON				
LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTOM DEPTH IN F		ROCK TVI	PE AND	RECORD QUANTITYAND
TORMATION	NAME TVD	TVD	MD	MD				ER, BRINE, OIL, GAS, H ₂ S, ETC
Sand/Shale	0	1662	0			10.00		
Sand	1662	1798						
Shale	1798	1816						
Sand	1816	1835						
Shale	1835	1842						
Sand	1842	1970						
Little Lime	1970	1986						
Pencil Cave	1986	1993						
Big Lime	1993	2116						
Keener	2116	2138	-					
Big Injun	2138	2162						
Shale	2162	2330						
TD	2330	2000						
		3.625						
Please insert ad	ditional pages a	s applicable.						
Drilling Contra	ctor Decker Dril	ling						
Address 11565	State Route 676		City	Vincent		State	ОН	Zip 45784
								Zip 45784 Received
	any Weatherford	d International					Office	ne of Oil & Gas
Address 777 No	rth River Avenue		City	Weston		State	MA	Ce of Oil & Gas
C	npany Universa	I Services						APR 2 3 2015
Address Hall Rd		1 00111000	City	Buckhannor	1	State	WV	Zip 26201
Stimulating Co		ers Service Co	rp.		-		011	10704
	uth Graham Street		City	Zanesville		State	ОН	Zip 43701
riease insert ad	ditional pages a	is applicable.						
Completed by	Roger Heldmar	1			Telephone	e 304-420	-1107	
Completed by Roger Heldman Signature Sur Wild Ti				perations Mar	F	-	Date 4	

Prepared for:

H G Energy

Dustin Hendershot

Customer Approval:



Prepared by:

Producers Service Corp

Daniel L Graham

109 S. Graham St.

INVOICE #: 17988 WELL NAME: C B Ferrell #202 COUNTY/STATE: Roane/WV TOWNSHIP/FIELD: Clover Field/Roane DATE of SERVICE: 3/26/2015 CUSTOMER PO#: Description FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE BLENDER CHARGE 0-10 BPM MILEAGE CHARGE PER UNIT ONE WAY IC ACID 15% PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO GEL 4 BUFFER I BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA	Notes	Amount 1 1 40 250 0.5	Units EA EA MI GAL	Unit Cost	Total Cost
COUNTY/STATE: Roane/WV TOWNSHIP/FIELD: Clover Field/Roane DATE of SERVICE: 3/26/2015 CUSTOMER PO#: Description FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE BLENDER CHARGE 0-10 BPM MILEAGE CHARGE PER UNIT ONE WAY IC ACID 15% PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER I BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA	Notes 4 HRS	1 1 40 250	EA EA MI	\$	Total Cost
TOWNSHIP/FIELD: Clover Field/Roane DATE of SERVICE: 3/26/2015 CUSTOMER PO#: Description FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE BLENDER CHARGE 0-10 BPM MILEAGE CHARGE PER UNIT ONE WAY IC ACID 15% PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER I BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA	Notes 4 HRS	1 1 40 250	EA EA MI	\$	Total Cost
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FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE BLENDER CHARGE 0-10 BPM MILEAGE CHARGE PER UNIT ONE WAY IC ACID 15% PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-A BXL-10C SAND 20/40 OTTAWA	4 HRS	1 1 40 250	EA EA MI	\$	Total Cost
BLENDER CHARGE 0-10 BPM MILEAGE CHARGE PER UNIT ONE WAY IC ACID 15% PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		1 40 250	EA MI	\$	
BLENDER CHARGE 0-10 BPM MILEAGE CHARGE PER UNIT ONE WAY IC ACID 15% PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		40 250	MI	\$	
IC ACID 15% PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA	2 Units @40Miles	250		C C	
PRO HIB II ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA			GAL	Φ	
ACID DELIVERY PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		0.5		\$	
PRO CLA LOK (KCL SUBSTITUTE) PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		0.0	GAL	\$	
PRO NE-21 PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		2	HR	\$	
PRO GEL 4 BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		15	GAL	\$	
BUFFER I BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		5	GAL	\$	
BUFFER II BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		150	LB	\$	
BIO CLEAR 750 AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		50	LB	\$ \$	
AP BREAKER BXL-A BXL-10C SAND 20/40 OTTAWA		50	LB	\$	
BXL-A BXL-10C SAND 20/40 OTTAWA		1	LB	\$	
BXL-10C SAND 20/40 OTTAWA		15	LB	\$	
SAND 20/40 OTTAWA		10	GAL	\$	
		10	GAL	\$	
CAND DELIVEDY LTON MILEC		25		\$	
SAND DELIVERY / TON MILES		100			
DATA VAN			STAGE		
2 INCH FLOW METER		1	EA	\$	
			F	Telvad	20