

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

June 13, 2013

WELL WORK PERMIT Secondary Recovery Well

This permit, API Well Number: 47-4303470, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin

Chief

Operator's Well No: M.A. BAYS NO. 126

Farm Name: HG ENERGY, LLC

API Well Number: 47-4303470

Permit Type: Secondary Recovery Well

Date Issued: 06/13/2013

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
- 4. All pits must be lined with a minimum 20 mil thickness synthetic liner.
- 5. No land application of pit fluids.



WW-3B 10/07



1) Date	April 24, 2013				
2) Operator's Well	l No.	N	I. A. Bays	No. 126	
3) API Well No.	47	-	043		
-	State	-	County		Permit
4) UIC Permit No		τ	JIC2R043	01AP	

STATE OF WEST VIRGINIA NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) W	ELL TYPE:		Liquid	l Injection	X		Gas Injection	n (not stora	ge)	Waste D	isposal	
6) L	OCATION:		Elevation	1001			Wa	tershed	Porte	r Fork		
	and the same of th	District		Duval		Cour	ntyLinco	oln		Quadrangle	Grif	fithsville 7.5'
7) W	ELL OPERA	FOR:	HG Ener	gy, LLC		4944979	48 8) DE	SIGNATE	D AGENT	: Mik	e Kirsc	h
			5260 Duj	pont Road		7.				5260	0 Dupor	nt Road
			Parkersh	ourg, WV	26101					Par	kersbur	g, WV 26101
) O	IL & GAS INS	SPECTO	OR TO BE	NOTIFIE	D:		10) I	RILLING	CONTRA	CTOR:		
		Name	Ralph Tr	riplett					Nam	е		
	I	Address		Clellan Hy					Addres	s		
			Branchla	and, WV 2	5506							
(1) P	ROPOSED WI	ELL WO	ORK:	Drill			Drill Deeper		Redri		mulate	X
						ld Format		Perforate	New Fori	nation		Convert
				Other			in Well (specify)					
12) G	eological targe	et forma	ition		Berea		Dept	h	2,471	Ft. (Top) to		2,492 Ft. (Bottom
13) Es	stimated dept	h of con	pleted we	ell (or actu	al dept	h of existing	ng well)	2592'		Ft.		
14) A ₁	pproximate wa	ater str	ata depths	3:	Fresh		370	Ft.		Salt	1,07	1 Ft.
15) A ₁	pproximate co	al seam	depths:			430		Ft.				
16) Is	coal being mi	ned in t	he area?			Ye	S	X	No			
17) Vi	irgin reservoii	pressu	re in targ	et formati	on:		1,	250	psig.	Source		Estimated
18) Es	stimated reser	voir fra	cture pre	ssure:			2,	650	psig.			
19) M	AXIMUM PR	OPOSE	D INJEC	TION OPI	ERATIO	ONS: V	Volume per hour	25 BBI	,	Bottom Hole Pr	ressure	2,400 psi
							JECTED, INCL	-				ced water, bactericid
							d improve oil re		DITIVES	Fresh water	, produc	ceu water, bactericiu
21) FI	ILTERS (IF A	NY)		Cartridge	filters	and/or coa	al bed filters					
			CATHOL				THER CORROS	ION CONT	ROL			
22) 51	· BOILIOITITE	71,1010	OHHIO	2011101	LOTTO		TILLIT COLLITOR	101, 001,1	1101			
23) C	ASING AND	TUBING	PROGR	AM								
O A CITATO	O OD		CDECE	ETO ADTO	TO		FOOTAGE II	TOTAL C		CEMENT FIL	TID	PACKERS
CASIN(G TYPE	Size	Grade	FICATION Weight	New	Used	For Drilling	Left in		OR SACKS (C)		PACKERS
Conduc		DIZE	Grade	Weight	11011	Osca	Tor Dining	Leit II	i fich	OIL BITOID (C.	0.11.,	Kinds
resh W		7"	L.S.	17#	X		530'	530)'	Cement to Surf	face	Tension
Coal	, 4.02	-	2.0.	2.11								Sizes
nterme	ediate											2.375" x 4.5"
Product	tion	4 1/2"	J-55	10.5#	X		2592'	259	92'	150 sacks	THE	Depths Set
ubing		2 3/8"	J-55	4.6#	X		2290'	229	90'			2190'
iners												Perforations
												Top Bottom
								mec	Cen	100		ν.
									- 1			
24) Al	PPLICANTS (OPERA'	TING RIG	HTS were	acqui	red from	Isaac and La	ura Bays				
	by Deed		Lease	X	O	ther Contr	act	DatedY		1904		of record in the
			Lincoln		Count	y Clerk's C	Office in		Book	33 at P	age	394

WW-3A 10/07



1) Date:		April 24, 2	2013		
2) Operator's We	ll No.	M. A. Bay	s No. 126		
3) API Well No.	47	043			
	State	County		Permit	
4) UIC Permit N	o.	UIC2R043	301AP		

STATE OF WEST VIRGINIA NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) Surface Owne	r(s) To Be Served	7 (a) Coal Operator	
(a) Name	Terry & Dawna Allen	Name	NA
Address	28 Russell Road	Address	
- Marcoo	Yawkey, WV 25573		
(b) Name	HG Energy, LLC	7 (b) Coal Owner(s) With Declaration Of Record
Address	5260 Dupont Road	Name	NA
Address	Parkersburg, WV 26101	Address	1111
(a) Name	Tarkersburg, WV 20101	Address	
(c) Name		Name	
Address_			
-		Address	
6) Inspector	Ralph Triplett	7(c) Coal Lessee W	ith Declaration Of Record
Address	5539 McClellan Hwy	1911	NA
Tradition _	Branchland, WV 25506	-	
Telephone	389-0350		
-			orm and the following documents:
he date propos HE REASON YO WHICH ARE SU	out the plan for erosion and sediment control are sed for the first injection or waste disposal is OU RECEIVED THESE DOCUMENTS IS THAT YOU MMARIZED IN THE "INSTRUCTIONS" ON FORM V	To be determine U HAVE RIGHTS R	ed EGARDING THE APPLICATION
	IRED TO TAKE ANY ACTION AT ALL.		
pplication and acc nvironmental Prot VW-6. Copies of thi	der Chapter 22-6 of the <u>West Virginia Code</u> , the undersigned ompanying documents for a Well Work Permit with the Chie tection, with respect to a well at the location described on the s Notice, the Application, the plat, and the Construction and ivered by hand to the person(s) named above (or by publication to the Chief.	of of the Office of Oil are attached Application I Reclamation Plan hav	nd Gas, West Virginia Department of and depicted on the attached Form we been mailed by registered or
	The person signing this document shall make the	following certification	on:
cortify under ren	alty of law that I have personally examined and am	Well Operator	HG Energy, LLC
	formation submitted in this document and all attachments	Address	5260 Dupont Road
	ny inquiry of those individuals immediately responsible		Parkersburg, WV 26101
	formation, I believe that the information is true, accurate		
nd complete. I am	aware that there are significant penalties for submitting	By:	Diane C. White
dse information, in	icluding the possibility of fine and imprisonment."	Its:	Accountant
	Received	Signature	Diane Clitite

Oil and Gas Privacy Notice

	W	W.	-2B	1
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Well No.	M. A. I	Bays No.	126
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West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing, The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

X Contractor Nam	e Sturm Environmental Services
Well operator's	private laboratory
Well Operator	HG Energy, LLC
Address	5260 Dupont Road
	Parkersburg, WV 26101
Telephone	304-420-1119

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

Special Note:

Peceived

Water sampling was completed through out the Griffithsville area for the UIC permit review late in 2012. Per Jamie Peterson, WVDEP, the timing of that large UIC sampling was sufficent for this Griffithsville project.

Cept. of Environmental Po66/14/2013

Form WW-9 Rev. 10/94

	Page	3	of	3
API N	umber 47-	043	-	
Operator's Well No.	M. A.]	Bays No.	126	

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator	HG Energ	y, LLC			OI	Code	4944979	48
Watershed	Porter For	k		Qı	adrangle	Griffi	thsville 7.5'	385
Elevation	1001'	County	Lincoln	43	District	1	Duval	02
Description of a	anticipated Pit Waste:	Fluids encoun	tered in drilling s	hallow well.				
Do you anticipa	ate more than 5,000 bbls	of water to comp	lete the proposed w	ell worl Yes		No	X	
Will a synthetic	c liner be used in pit?	Yes	If so, what mil.?	-10 Mil.	20 Mic	_		
Proposed Dispo —	Sal Method For Treated X Land Applie Undergroum Reuse (at A	cation nd Injection (UIC	Permit Number)
=	and the second second	The state of the s	rm WW-9 for dispos	al location)	1.372	F/15)
Drilling mediun	n anticipated for this we	ll? Air, fresh wat	er, oil based, etc.	Air, Fresh	Water			
	If oilbased, what type? S	Synthetic, petrole	um, etc.	NA				
Additives to be			1 66 1					
- I	isposal method? Leave in If left in pit and plan to sandfill or offsite name/	solidify, what med		Cement, lime,	sawdust <u>N</u>	ative so	il, cement, lir	ne
that the provision of t	et 1, 2005, by the Office ons of the permit are enor regulation can lead to certify under penalty of later and all attachmen e information, I believe bmitting false information	forceable by law. 'enforcement action aw that I have pets thereto and that the information of the state of th	Violations of any ter on. ersonally examined at, based on my inquion is true, accurate	rm or condition and am familia uiry of those in and complete	of the gene or with the in dividuals im I am aware	ral perm nformati mediate	it and/or other on submitted o	r on
Company Offic	cial Signature		Diane CL	thit.				
	cial (Typed Name)		Diane C. White			7		
Company Office			Accountant					
Subscribed and	d sworn before me this	35	day of 1	APRIL		form D.	ublic .	
My commission	n expires	NOV.	12.20	018		Me	Ceiv	ed
Form WW-9					A-24	. MA	Y 10 -	
		The state of the s	STATE STATE	OFFICIAL SEA NOTARY PUBI OF WEST V NA L. PETHT	IC IRGINIÀ		e of Oil and Ga	

HG Energy, LLC 5260 Dupont Road: Parkersburg, West Virginia 26101 My Commission Expires Nov. 12, 2018

Legend

A A A Diversion ////////							
Property Boundary	A A A	Diversion	211111111111				
Rond		Spring	<u></u>				
Existing Fence	xx	Wet Spot	Ö_				
Planned Fence	<u> </u>	Drain Pipe	——————————————————————————————————————				
Stream		, Waterway	\leftarrow				
Open Ditch	>	Cross Drain					
Rock	2000	Filter Strip	XXXXXXXXX				
2007		Pit: Cut Walls					
, , ,	Nr		٠٠٠٠٠				
North	N N	Pit: Compacted Fill Walls	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \				
Buildings		Fin wans	min				
Water Wells	(W)	Area of Land Application					
Drill Site		of Pit Waste	E ST. A T. ST.				
		لـــ	•				
	Are		evegetàtion pH				
Proposed Revegetation Treatm	ent: Acres Disturbed Approx.						
		ea II 1.0 Ac.					
	. Approx.	1.0 Au.					
Lime 2 Tons/Acre or Correct to pH 6.5							
Lime 2 Tons/Acre or Correct to pH 6.5 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)							
Mulch		cre					
SEED MIXTURES							
	SEED IL	ZIII-OACIO					
Area	I (Location)		Area II (Road)				
Seed Type	Lbs/Ac.	Seed Type	Lbs/Ac.				
Tall Fescue	40	Tall Fescue	40				
Ladino Clover	5 .	Ladino Clover					
		•					
			•				
Attach:							
Drawing(s) of road, location,	pit and proposed area for land application	n					
Photocopied section of involv	ed 7.5' topographic sheet.						
=	2 1 (1)						
Plan approved by: <u>Ha</u>	epl X /ripiett						
Comments:							
Distrect =	inspected		5				
Title:			Date: 71 au 2 20/3				
Field Reviewed?	() Yes	()	No HACEINED				
# #*** # * * * * * * * * * * * * * * *	green was transport and the	• • .	MAY 1.0 2013				
			MAST 1 (1 7/3) (C				







