

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

October 25, 2013

WELL WORK PERMIT

Rework-Secondary Recovery

This permit, API Well Number: 47-10301673, 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: J. K. FLUHARTY E-18

Farm Name: YELLOW HOUSE SPORTS CLUB

API Well Number: 47-10301673

Permit Type: Rework-Secondary Recovery

Date Issued: 10/25/2013

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

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 of 20 mil thickness synthetic liner.
- 5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
- 7. Well work activities shall not constitute a hazard to the safety of persons.
- 8. If well work related activities require the use of water obtained by withdrawals from waters of this state in amounts that exceed two hundred ten thousand gallons during any thirty day period, the operator is required to consult, and adhere to, the guidance provided by DEP's Water Withdrawal Guidance Tool prior to any water withdrawals.



1) Date					
2) Operator's Wel	l No.	J	. K. Fluha	rty N	o. E-18
3) API Well No.	47		103	-	1673
	State		County		Permit
4) UIC Permit No		τ	JIC2R095	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	VELL TYPE:		Liquid	Injection	X		Gas Injecti	on (not sto	orage)	Waste Disposal				
6) L	OCATION:	E	Elevation	1268'			W	atershed	Fluhar	ty Fork				
	Dis	trict		Green		County	We	tzel		Quadrangle	Cer	nterpoint	7.5'	
7) W	VELL OPERATO	R:	HG Ener	gy, LLC		494497948	8) I	DESIGNAT	TED AGENT	: Mik	e Kirso	h		
				ont Road								nt Road		_
			Parkersb	urg, WV 2	26101	+4				Par	kersbu	rg, WV 26	6101	
9) 0	OIL & GAS INSPE	ECTO:	R TO BE	NOTIFIE	D:		10)	DRILLIN	G CONTRAC	CTOR:				
			Derek Ha						Name	To Be Determine	d Upon I	Permit App	roval	
	Add		PO Box 8						Address	3				
		1	Smithvill	le, WV 261	178					_				-
1) P	ROPOSED WELL	L WO	RK:	Drill			Drill Deep		Redril		mulate	_		
						d Formation			te New Form	nation		Convert		
o) 0				Other		l Change in		-	1.45			20.00	27 200	_
	leological target f				Gordon		Dej	oth	3,093	Ft. (Top) to		3,155	Ft. (Bott	om)
3) E	stimated depth o	f com	pleted we	ll (or actu	al deptl	of existing	well)	-	3262'	Ft.				
4) A	approximate water	r stra	ta depths	:	Fresh		448	Ft.		Salt	1,47	75	Ft.	
(5) A	approximate coal s	seam	depths:			1088		Ft.						n
6) Is	s coal being mined	d in th	ne area?			Yes		J. 13	X No					DM 8-
7) V	irgin reservoir pr	essur	e in targe	et formati	on:		60		psig.	Source		Estimat	ed	8-
8) E	stimated reservo	ir frac	ture pres	sure:	•		1200		psig.					
	IAXIMUM PROP				חודית כוי	NG. Vol	ume per ho	05 hb		Pattern Wals D			100:	
								-		Bottom Hole P	ressure		400 psi	-
	DETAILED IDEN' nd other chemical								ADDITIVES	Fresh water	, produ	ced wate:	r, bacteri	cides
_	TLTERS (IF ANY					and/or coal h	-			-				
		-		33575				GTON GO	NUMBOT		-			
(2) S	PECIFICATION	FOR	CATHOL	IC PROT	ECTIO	N AND OTH	ER CORRC	SION COL	NTROL	-				-
3) C	ASING AND TU	BING	PROGRA	AM										-
Lan	o on		appar	71.01.07.03	70		7007107	**********						
ASIN	IG OR	70	Grade	FICATION Weight	New		FOOTAGE or Drilling		t in Well	OR SACKS (C		PA	CKERS	
onduc	100	ze	Graue	weight	New	Osed F	or Drining	Tier	t III Well	ON SACKS (C	U. F1.)	Kinds		
resh V		/8"	LS	20#	X		528'		528'	Use Existing Ca	sing	Tension		-
oal												Sizes		-
nterm	ediate 41	/2"	J-55	10.5#	X		3231'		3231'	Use Existing Ca	sing			
roduc	Control of the contro											Depths	Set	
ubing	23	14	155	46#	×			3	30241	23/8" *4	12 PACK			
iners												Perforat	ions	
												Тор	Bottom	
24) A	PPLICANTS OP	ERAT	ING RIG		acquir	ed from	Vesta F	. Holbert		1				
	by Deed		Lease	X		her Contract		Dated		ber 5, 1978	REC	of record	l in the	
_			Wetzel		County	Clerk's Offi	ce in	Lease	Book	58-A fat I	age	205	do	

SEP 252013

47-103-1673S

State of West Virginia Division of Environmental Protection Section of Oil and Gas

Well Operator's Report of Well Work

Farm name:	YELLOW H	OUSE SPORTS CLUB	Ope	rator Well	No.: J.K. 1	FLUHARTY	/ E-18
LOCATION:	Elevation:	1,268	Qua	drangle:	CENTER	POINT	
	District: Latitude: Longitude:	GREEN 5,050 Feet south of 9,600 Feet west of		-	TZEL Min 0 Min 0	Sec. Sec.	
Company:	P.O. BOX 55	PRODUCTS COMPANY 19 V 26105-5519		Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Agent:	PHILIP S. Of	NDRUSEK		Size			
Inspector: Permit Issued: Well work Com	RANDAL M	CK 5/3/95 7/25/95					
Well work Com Verbal plugging	pleted:	10/18/95		8-5/8	528'	528'	275 SKS
permission gran Rotary Total Depth (fee	_Cable et)3	Rig 3,262		4 1/2"	3231.95'	3231.05'	170 SKS
Fresh water dep	ths (ft)	NA					
Salt water depth	is (ft)	NA					
Is coal being mit Coal Depths (ft)	•	N) NA NA					
OPEN FLOW D	OATA	*Waterflood Injection We	ell				
Gas:	ing formation Initial open flo Final open flo Time of oper ock pressure	w * Man flow between initial and	CF/d CF/d d fina	Oil: Initia Final	Pay zone do lo open flow sure)	Hour	3093-3155 * Bbl/d * Bbl/d s Hours
Second producing formation Gas: Initial open flow Final open flow Time of open flow between initial and final tests Pay zone depth (ft) MCF/d Oil: Initial open flow Bbl/d Final open flow Bbl/d Hours							Bbl/d
Static re	ock pressure	ps	ig (su	rface pres	sure) C	after AECE	IVED Hours
INTERVALS, F LOG WHICH IS	RACTURING S A SYSTEMA	ORM, PUT THE FOLLOV OR STIMULATING, PH TIC DETAILED GEOLO VTEREDBY THE WELLE	YSICA GICA	L CHANGE	GE, ETC. 2 D OF ALL	THE WEI	DNS,
		For: PENNZO	DIL PR	ODUCTS	COMPAN	Y ^{une} ntai	rnent of Protection
		By: Date:	-ti	mad (yel	·	10/25/20 13

<u>Treatment:</u> Perforated Gordon 3124'-3132' (32 Holes) Treated Via 4 1/2 CSG with 300 Gal 15% HCl Acid, 272 BBL Gelled Water & 15,000 LB 20/40 Sand.

Well Log:

 Δz

Sand & Shale	0	-	1564'
Sand	1564'	-	1648'
Shale	1648'	-	1660'
Sand	1660'	-	1712'
Sand & Shale	1712'	-	2227'
Sand	2227'	-	2276'
Sand & Shale	2276'	-	2238'
Sand	22381	-	2516'
Sand & Shale	2516'	_	3093'
Gordon	3093'	-	3155'
T.D.	32621		

Received

SEP 25 2013

Office of Oil and Gas

Office of Cil and Gas

Wy Dept. of Environmental Protection

WW-3A 10/07



1) Date:		July 25, 2	013	
2) Operator's We	11 No.	J. K. Fluh	arty No	. E-18
3) API Well No.	47	103		1673
	State	County		Permit
4) UIC Permit N	0.	UIC2R095	501AP	

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 Owner(s) To Be Served	7 (a) Coal Operator					
(a) Name Yellow House Sportsman's Club	Name	NA				
Address 1522 Main Street	Address					
Wellsburg, WV 26070						
(b) Name	7 (b) Coal Owner(s) With Declaration Of Record				
Address	Name	NA				
- Marcoo	Address					
(c) Name						
Address	Name	NA				
Address	Address	*14.*				
	Tuuress					
6) Inspector Derek Haught	7(c) Coal Lessee W	7ith Declaration Of Record				
Address PO Box 85	A Part of the Control	NA				
Smithville, WV 26178						
Telephone 206-7613						
TO THE PERSON(S) NAMED ABOVE: You should	have received this fo	orm and the following documents:				
The date proposed for the first injection or waste disposal THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON FOR ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL. Take notice that under Chapter 22-6 of the West Virginia Code, the under Application and accompanying documents for a Well Work Permit with the Environmental Protection, with respect to a well at the location described WW-6. Copies of this Notice, the Application, the plat, and the Construct certified mail or delivered by hand to the person(s) named above (or by purmailing or delivery to the Chief.	TYOU HAVE RIGHTS RORM WW-3(A) DESIGNATE TO THE PROPERTY OF THE	es to file or has filed this Notice and and Gas, West Virginia Department of and depicted on the attached Form we been mailed by registered or tances) on or before the day of the				
The person signing this document shall mal	ke the following certificati	on:				
"I certify under penalty of law that I have personally examined and am	Well Operator	HG Energy, LLC				
familiar with the information submitted in this document and all attachn		5260 Dupont Road				
and that, based on my inquiry of those individuals immediately responsib	ole	Parkersburg, WV 26101				
for obtaining the information, I believe that the information is true, accur						
and complete. I am aware that there are significant penalties for submitt		Diane C. White ECEIVED				
false information, including the possibility of fine and imprisonment."	Its:	Accountantice of Oil and Gas				
Oil and Gas Privacy Notice	Signature	Diane Other Little				
The Office of Oil and Gas processes your personal information, such as na	ame, address and phone num	ber, as a part of our regulatory duties CIT Of				

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. It of Your personal information may be disclosed to other State agencies or third parties in the course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at:

deprivacyofficer@wv.gov

Form WW-9 Rev. 10/94

•	•	Page_	3	\mathbf{of}		3
	AP	I Number 47-	103	-		1673
Operator's	Well No.	J. K. Flul	narty N	Io. E-1	. 8	

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

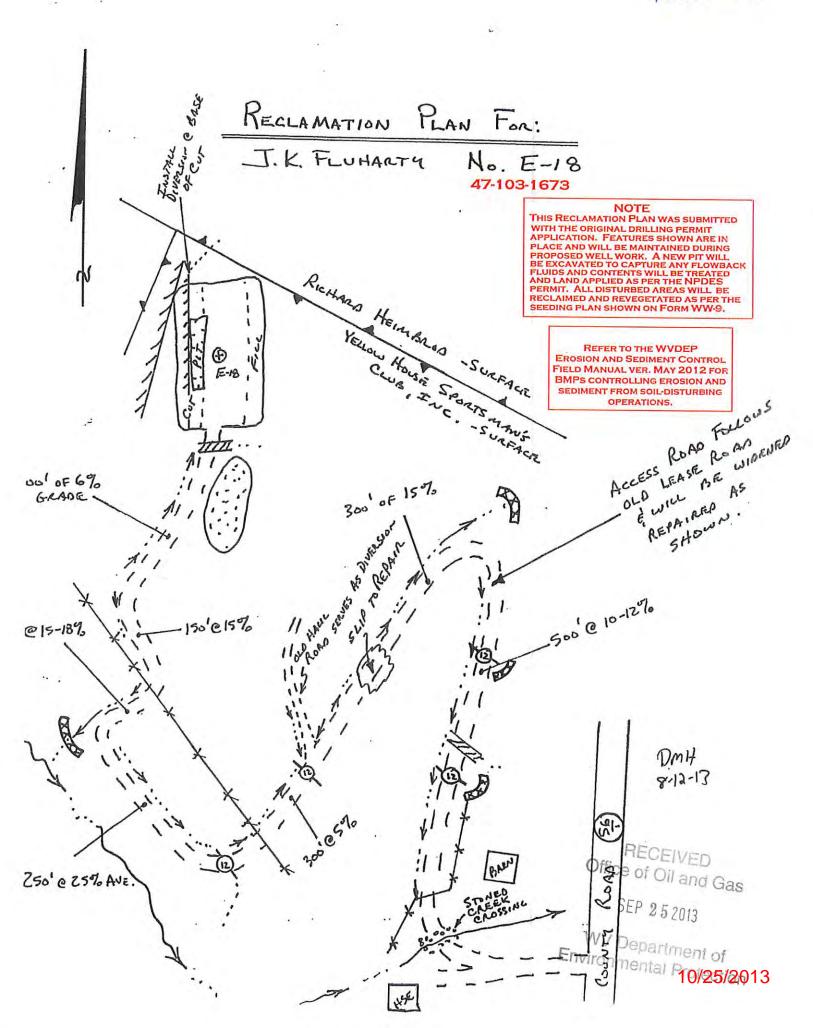
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator	HG Energ	v. LLC			OP Code	494497948	
Watershed	Fluharty F	· · · · · · · · · · · · · · · · · · ·		Quadrangle		rpoint 7.5'	
Elevation	1268'	County	Wetzel	District		Freen	
Description o	f anticipated Pit Waste:	-	tered in stimulating exist		<u> </u>	310011	
Do you antici	pate more than 5,000 bbls		ete the proposed well work	Yes	No	X	 · ·
Will a synthe	tic liner be used in pit?	Yes	If so, what mil.?	0 Mil.			
Proposed Dis	Reuse (at A)	ation d Injection (UIC) PI Number	Permit Number m WW-9 for disposal location	n)			<u>)</u>
Additives to l	um anticipated for this we - If oilbased, what type? S be used? Water, soa	ll? Air, fresh wate ynthetic, petroleu p, KCI	ım, etc.	NA			
	disposal method? Leave in If left in pit and plan to s Landfill or offsite name/p	olidify, what medi	noved offsite, etc. ium will be used? Cement, l	lime, sawdust	Native soi	l, cement, lime	F.12-13
that the provi applicable law this application for obtaining	isions of the permit are enf v or regulation can lead to I certify under penalty of l on form and all attachment the information, I believe t	orceable by law. Venforcement action with a that I have personant that the thereto and that the information	he West Virginia Departmentiolations of any term or conorm. resonally examined and am fit, based on my inquiry of the on is true, accurate and compossibility of fine or imprisonossibility or fine or imprisonossibility of fine or imprisonossibility or imprisonossibility of fine or imprisonossibility or imprison	dition of the ge amiliar with th ose individuals uplete. I am awa	neral permi e informatio immediately	t and/or other n submitted on y responsible	
Company O	fficial Signature		Diane Cal	hite			
Company O	fficial (Typed Name)	-	Diane C. White				
Company O	fficial Title		Accountant				 .
Subscribed a	and sworn before me this	as 1 Rett	day of July	·DD]3	Notary Pu	blic	
My commiss	ion expires	DV 121	2018			RECE	EIVED II and Gas
Form WW-9						-9 01 ()	" and Gas
	OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIR TINA L. PETHTEL HG-Energy, LLC 5260 Dupont Road: Parkersburg, West Virginia y Commission Expires Nov.	GÍNIÁ	e e e e e e e e e e e e e e e e e e e		<i>V</i>	SEP 25	2013

Legend

Property Boundary	A	Diversion	
Road		Spring	○
Existing Pence	xx	Wet Spot	24
Planned Fence	//_	Drain Pipe	(12)>
Stream		Waterway	
1		Cross Drain	
Open Ditch Rock		Filter Strip	×××××××××××××××××××××××××××××××××××××××
ROCK	000 m	Pit: Cut Walls	Lucian
. 37_41	· \1	Pit: Cut wans	Current .
North	N .	Pit: Compacted	
Buildings		Fill Walls	, mine
Water Wells	®	Area of Land Application	
Drill Site	\bigoplus	of Pit Waste	المستقرات والمستقرات
. \-			
	Area	Ý	
roposed Revegetation Treatmen			no cotation all
Mosed Revegetation Treatmen			vegetation pH
	Area]		
	Approx.	0.2 Ac.	
	.		•
Lime	2 Tons/Acre or Con		
	(10-20-20 or Equivalent) 500		bs. Minimum)
Mulch	Straw 2 Tons/Acre	3	
•	SEED MIX	TURES	
	•	•	
	(Location)		Area II (Road)
Seed Type	Lbs/Ac.	Seed Type	Lbs/Ac.
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5 ·
		*	
Wattata		· · · · · · · · · · · · · · · · · · ·	
(U)DUU	17.1.1028747889		
inch:			
	and proposed area for land application		
transpied section of involved?	7.5' topographic sheet.		
Plan approved by:	1		
Comments:			
Comments,			
- 11			<i>**</i>
Title: _0/1	thes Inspettor		Date: 8-12-13
Field Reviewed?	(Yes	()	Commercy land control of the control
	(2) 100	() 1	ig jagge engligheld
•	OAL YES	Sieli "	AUROPHA PROPERTY ARCHITECT
			and the second
	DAON OF THE		

raje. water.





HG Energy, LLC 5260 Dupont Road

Parkersburg, WV 26101 (304) 420-1100 - Office (304) 863-3172 - Fax

CK#2324 650°

July 25, 2013

Mr. Jeff McLaughlin WVDEP Division of Oil & Gas 601 57th Street Charleston, West Virginia 25304

RE: J. K. Fluharty No. E-18 (47-103-1673)

Green District, Wetzel County

West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, Mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate the above-captioned liquid injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane C. White

Enclosures

cc: Yellow House Sportsman's Club - Certified

Derek Haught - Inspector

Diane C White

RECEIVED
Office of Oil and Gas

SEP 252013

WV Department of Environmental Protection