

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

August 09, 2013

WELL WORK PERMIT Vertical Well

This permit, API Well Number: 47-3906362, issued to RESERVE OIL & GAS, INC., 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: RIVER RIDGE #1

Farm Name: RIVER RIDGE COMMUNITY CHI

API Well Number: 47-3906362
Permit Type: Vertical Well
Date Issued: 08/09/2013

Date Issued: 08/09/2013

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 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.

WW - 2B (Rev. 8/10)

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

					39	04	230
) Well Operat	or: Rese	rve Oil &	Gas, Inc.	310-324	Kanawha	Elk	Big Chimney
) Operator's V	Vell Numb	per: Mead	r Ridge owbrook #1	Operator ID	County 3) Elevation:	District 775	Quadrangle
) Well Type: (a) Oil	or Ga	as <u>×</u>				
(b) If Gas:	Produ	uction × / Un	derground Sto	rage		
		Dee	p/ S	Shallow x			
6) Proposed To 6) Proposed To 7) Approximate 8) Approximate	otal Depth fresh wa	ter strata	a depths: 200	Formation at F	Proposed Tate	get Depth: _Bas	e of Lower Huron
) Approximate	e coal sea	m depth	s: None				
0) Approxima	to void do	onthe (co	al, Karst, other):	None			
о) Арргохіпіа	te void de	puis,(co	ai, Naisi, Oliiei j.	110110			====
1) Does land	contain co	oal seam	is tributary to ac	tive mine? _n	0		
2) Describe pro	oposed we	ll work ar	nd fracturing meth	nods in detail (a	ttach additiona	al sheets if ne	eded)
rill and complete	a New Dev	onian Sha	ale well with a 2 sta	ige frac.			
					Λ	11	Ju
					A	119	3
13)	11255.5		ASING AND TU		T-State of the state of the sta	٠,١١٠	
TYPE S	SPECIFIC T	75/ 2 1/ 7		FOOTAGE	(INTERVALS	S CEME	NT
	Size	<u>Grade</u>	Weight per ft	For Drilling	Left in Well	Fill -up (Cu	ı. Ft.)
Conductor	13 3/8			20'		CTS	S
Fresh Water	9 5/8			330'		CTS x 40%	excess
Coal						,	
Intermediate	7			1800'		CTS x 30%	of hole
				4650'		C 120 s	sks
Production	4 1/2			1000			
Production Tubing	4 1/2			1000	b/c		
Tubing	4 1/2			1000	Ple		
				1000	Pie		
Tubing Liners	d:			1000	Pie	Office of Stanton	

WW-2	2A
(Rev.	6-07)

1). Date:

07/08/2013

2.) Operator's Well Number

River Riol ? Meadowbrook #1

State County

Permit

3.) API Well No .:

47-

39 - 06362

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be		5) (a) Coal Operator		
(a) Name River Ridge Con		Name		
Address 804 Myrtle Rd:	2090 Grunbrius	Address		
(b) Name	25314 2 5 3 1/	(b) Coal Owner(s)	with Declaration	
Address		Name	Willi Deciaration	
Address		Address		
		Addless		
(c) Name		Name		
Address		Address		
	1 bara	(c) Coal Lessee w	ith Declaration	
Address 0.0. B	ox 1207	Name		
	cin, WV 25045	Address		
	549-5915			
		MED ABOVE TAKE NO		
Included is the lease or lea	ases or other continuing	g contract or contracts by v	vhich I hold the righ	nt to extract oil and gas
OR				
Included is the information				
		of the West Virginia Cod		
application, a location plat, and			on the above name	ed parties by:
	al Service (Affidavit atta			
	d Mail (Postmarked pos			
	tion (Notice of Publication		to the torms and	anditions of any name
issued under this application.	stand Chapter 22-6 an	d 35 CSR 4, and I agree	to the terms and	conditions of any permit
	of law that I have ner	sonally examined and am	familiar with the in	oformation submitted on
this application form and all a				
obtaining the information, I bel	ieve that the information	n is true, accurate and con	nplete.	
I am aware that there	are significant penalties	s for submitting false inform	mation, including th	ne possibility of fine and
imprisonment.				Scer My
The second second	Well Operator	Reserve Qil & Gas, Inc.		20 2013
OFFICIAL SEAL STATE OF WEST VIRGINIA	By:	Jux Hole V	(A)	The case
NOTARY PUBLIC David N. Brannon	Its:	Vice President		Office of Orl and Gas protection
HC 75 Box 410	Address	929 Charleston Road		JUL and antal.
My Commission Expires December 10, 2		Spencer, WV 25276		of Confine
	Telephone	304-927-5228		Office Envi
Subscribed and sworn before	me this day o	f July	, 2013	3
Wand A B	Tannen			My Dept. of Environmental Protes
My Commission Expires	Marian Maria	1 2017	Notary Public	
	Hummy 10	1		
Oil and Gas Privacy Notice				

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal 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 depprivacyofficer@wv.gov

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Kanawha			River Ridge
Operator Reserve Oil & Gas, Inc.	Oper	ator's Well Numbe	r - Meadowbrook #1
INSTRUCTI	IONS TO COAL O	PERATOR, OWNE	ER, OR LESSEE
any objection you wish to mak	ke or are required t Oil and Gas withir	o make by WV Co	V2-A. You are hereby notified that de 22-6-15, 16 or 17, must be filed after the receipt of this application
Chief, Office of Oil and Gas Department of Environmental 601 57 th St. SE Charleston, WV 25304 (304) 926-0499 extension 165			
	w	AIVER	
	this location, provid inia Code and the	led, the well opera governing regulation	indersigned has no objection to the tor has complied with all applicable ons. ECUTION BY A CORPORATION, ETC.
	Date	Company Name	
Signature		By Its	Date
		Sig	coalbal/scarontestation this to
	No Know	1 OWNER,	operator all 25 di and cas protection
	lessee of	workable	Coalbol/ Scanding Environ
	lessee of	workable	Coalbed / Seamon of this to

SURFACE OWNER WAIVER

		JUNI ACE C	WINER WAIVER		
County	Kanawha	Ope	erator	Reserve Oil & Gas, In	ic.
		Оре	erator well numbe	Meadewbrook-#1	
	WOTDUCT	IONO TO OUDEACE	OMNIEDO MAMED O	River Riolge	
	INSTRUCT	IONS TO SURFACE	OWNERS NAMED C	IN PAGE WWZ-A	
If the surfact appeared or be the only permits are		e than three persons, n the land or because receive these materi ou do not own any int who it is. Also, please YOU ARE NOT REQ	then these materials you actually occupy als.) See Chapter a terest in the surface notify the well opera	s were served on you ly the surface tract. In e 22 of the West Virginia tract, please forward th tor and the Office of Oil	because your name lither case, you may a Code. Well work ese materials to the
	of Oil and Gas of Environmental Protect	iion			
Charleston,	WV 25304				
(304) 926-04	l50 and methods for filing	comments The law	roquiros thans mate	oriale to be carried as a:	hoforo the data the
operator files be filed in po be sure of t handling. If the planned Con well operato from the app The 1) 2) 3)	s his Application. You have reson or received in the reson or received in the reson or received in the reson have been contacted work described in these ments must be in writer's name and well number of the proposed well work. The soil erosion and sed Damage would occur to part of the proposed well work.	ave FIFTEEN (15) DA mail by the Chief's off rour pos tmaster to end d by the well operator materials, then the pe ting. Your comments er and the approximat ther documents, such leny or condition a we will constitute a hazar iment control plan is r publicly owned lands	AYS after the filing datice by the time state is ure a dequate delivered and you have signermit may be issued as must include your delocation of the propas sketches, maps of all work permit based do to the safety of permit adequate or effector resources;	ate to file your commend above. You may call very time or to ar ranged a "voluntary statement any time. name, address and teleposed well site including or photographs to support on comments on the forsons.	ts. Comments must the Chief's office to e special expedited of no objection" to ephone number, the g district and county ort your comments.
5)	The applicant has comm	nitted a substantial vie	olation of a previous	permit or a substantia	
	more of the rules promule ou want a copy of the				
request a co	opy from the Chief.				A
List	of Water Testing Labo	ratories. The Office	maintains a list of wa	ater testing laboratories	which you can hire
to test your	water to establish water o	quality prior to and aπο OLUNTARY STATE			4
Application f	reby state that I have rea or a Well Work Permit or	ad the instructions to so Form WW2-A, and a	surface owners and tattachments consisting	that I have received co ng of pages 1 through _ reposed well work on	including a work
I fur	ther state that I have no	objection to the plann	ed work described in	these materials, and I	have no objection to
a permit bei	ng issued on those mater	rials.			Office Enviro
FOR EXECU	erein. ther state that I have no one g issued on those mater JTION BY A NATURAL F	PERSON	FOR E	XECUTION BY A COR	PORATION, ETC.
		Date	Company Name	irc- Riden Ch	werk
	Signature	Date	By P	astor	V/ 4 - 1
			Its	Tuly 24 20	Date
	Late of Market			1 55 SE	
	Print Name		Si	gnature	Date
			1 - 1		

Operator's Well Number



INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6, Section 8(d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
New Hope Enterprises, Inc.	Reserve Oil & Gas, Inc.	1/8	Being recorded-lease attached

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application he reby a cknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers

Received The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all poods initiated.

> Well Operator: By:Its:

Reserve Oil & Gas, Inc. J. Scott Freshwater Vice President

08/09/2013

WW-2B1 (5-12) Well No. River Ridge # 1

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.

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

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name
Sampling Contractor

Well Operator
Address

Peserve Oil & Gas, Inc.

Period Spencer, WV 25276

Telephone

ALS Environmental Lab

ALS Environmental Lab

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 underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

See Attached.

Received

Office of Oil and Gas Protection

Office of Oil and Gas Protection

Office of Oil and Gas Protection

O8/09/2013

Operator: Reserve Oil & Gas, Inc. Well Number: River Ridge #1



Well Information / Potential Water Well Sample Data Sheet

Operator: Reserve Oil & Gas, Inc.

Lease Name and Number: River Ridge #1

Comments

The initial mapping review of the area surrounding the proposed well site revealed the below listed surface owner (s) that were potentially utilizing groundwater (potable) for human consumption or other purposes within one thousand (1,000) feet of the proposed well site. The following landowners have been notified of the opportunity to request a water sample should it be necessary.

Please note that the following information is subject to change upon field inspection.

Individual Contacted or Notified

Owner / Occupant: Capitol Flea Market

Address: Greenbrier St.

Letter/Notice Date: 07/09/13

Comments: City water;

Owner / Occupant: yellow brick building on Flea market property

Address: Greenbrier St.

Letter/Notice Date: 07/09/13

Comments: Posted Notice

Owner / Occupant: Meadowbrook Acres Nursing Center

Address: Greenbrier St.

Letter/Notice Date 07/09/13

Comments: City Water

Peceived

JUL 25 2013

Office of Oil and Gas protection

Office of Oil and Gas protection

Phone 1-304-037-5068 100

Operator: Reserve Oil & Gas, Inc. Well Number: River Ridge #1

Owner / Occupant: Wellingtons Catering

Address: Greenbrier St.

Letter/Notice Date:07/09/13

Comments: City Water

Owner / Occupant:

Address:2173 Greenbrier St.

Letter/Notice Date: :07/09/13

Comments: City Water

Owner / Occupant:

Address:2181 Greenbrier St.

Letter/Notice Date: :07/09/13

Comments: Posted Notice

Owner / Occupant:

Address:2177 Greenbrier St.

Letter/Notice Date: :07/09/13

Comments: City Water according to neighbor- chainsaw artist home

Owner / Occupant:

Address:2193 Greenbrier St.

Letter/Notice Date:07/09/13

Comments:Posted Notice

Owner / Occupant:

Address:2195 Greenbrier St.

Letter/Notice Date: :07/09/13

Received

Operator: Reserve Oil & Gas, Inc. Well Number: River Ridge #1

Comments: City Water

Owner / Occupant: Meadowbrook Free Will Baptist Church

Address: Greenbrier St.

Letter/Notice Date:07/09/13

Comments: Posted notice

Owner / Occupant:

Address: 117 Brooke hill Drive

Letter/Notice Date: :07/09/13

Comments: City Water

Owner / Occupant: Patty Dunbar

Address: 121 Brooke Hill DRive

Letter/Notice Date: :07/09/13

Comments: Talked to her; closest house to well; city water

Owner / Occupant:

Address: 122 Brooke Hill DRive.

Letter/Notice Date: :07/09/13

Comments: Posted notice,

Owner / Occupant:

Address: 124 Brooke Hill DRive

Letter/Notice Date: :07/09/13

Comments:Posted Notice

Received

Onice of Onice of Oni and Goe Anternor

Operator: Reserve Oil & Gas, Inc. Well Number: River Ridge #1

Owner / Occupant:

Address:128 Brooke Hill Drive

Letter/Notice Date:07/09/13

Comments:Posted Notice

Owner / Occupant:

Address: 201, 203 Brooke Hill Drive

Letter/Notice Date: :07/09/13

Comments: City Water

Owner / Occupant:

Address: 207 Brooke Hill Drive

Letter/Notice Date: :07/09/13

Comments: Posted notice

Owner / Occupant:

Address:213 Brooke Hill Drive

Letter/Notice Date: :07/09/13

Comments: Posted notice

Owner / Occupant:

Address:215 Brooke Hill Drive

Letter/Notice Date: :07/09/13

Comments: Posted notice

Owner / Occupant:

Address: 216 Brooke Hille Drive

Received 25 200 Reserve Oil and Gas, Inc. • 929 Charleston Road • Spencer, WV 25276 • 1-304-927-5228 phone • 1-304-927-506 08/09/2013

Operator: Reserve Oil & Gas, Inc. Well Number: River Ridge #1

Letter/Notice Date: :07/09/13

Comments: Posted notice

Owner / Occupant:

Address:217 Brooke Hille Drive

Letter/Notice Date: :07/09/13

Comments: Posted notice

Owner / Occupant: Charleston Treatment Center

Address: Greenbrier Street

Letter/Notice Date: :07/09/13

Comments: City Water

Owner / Occupant: Imagine This

Address:2155 Greenbrier St.

Letter/Notice Date: :07/09/13

Comments: City Water

Owner / Occupant:

Address: 2169 Greenbrier St.; red brick house

Letter/Notice Date: :07/09/13

Comments: Posted notice

Owner / Occupant: Second Impressions

Address: Greenbrier St.

Letter/Notice Date: :07/09/13

Comments: City Water

Received

Office of Onland Cas Protection

Office of Onland Cas Protection

WW-9	
(5/13)	

F	age	of	
API Number 47 -	Francis		4
Operator's Well No	Riv	or Ridge	#1

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Reserve Oil & Gas,	, Inc.	OP Code
Watershed (HUC 10) Mill Creek		Quadrangle Big Chimney
Elevation	County Kanawha	District_ Elk
Do you anticipate using more than	1 5,000 bbls of water to comple	ete the proposed well work? Yes No x
Will a pit be used for drill cuttings	s? Yes × No	
If so, please describe anti	icipated pit waste: gel water, o	drill cuttings, freshwater No If so, what ml.? 20 W
Will a synthetic liner be	used in the pit? Yes x	No If so, what ml.?/20 \(\sqrt{20} \)
Proposed Disposal Metho	od For Treated Pit Wastes:	
Land A		
		Number)
A CONTRACTOR OF THE CONTRACTOR		-9 for disposal location)
The state of the s		
Will closed loop system be used?	N/A	
		pased, etc. Air, Gel, freshwater
		offsite, etc. Leave in pit
		used? (cement, lime, sawdust) Soil/Dirt
-Landfill or offsite name	permit number?	· · · · · · · · · · · · · · · · · · ·
on August 1, 2005, by the Office of provisions of the permit are enfor law or regulation can lead to enform a certify under penalty of application form and all attachm	of Oil and Gas of the West Virg reeable by law. Violations of reement action. of law that I have personally ments thereto and that, based eve that the information is true	conditions of the GENERAL WATER POLLUTION PERMIT isseginia Department of Environmental Protection. I understand that any term or condition of the general permit and/or other applications are examined and am familiar with the information submitted on a lon my inquiry of those individuals immediately responsible the accurate, and complete. I am aware that there are significantly of fine or imprisonment.
Company Official (Typed Name)	J. Scott Freshwater	OFFICIAL STATE OF WEST MAGNINA
Company Official Title_Vice Pres		NOTAROPURO Day/OF, Reahing OF, 5490, 410 Cities NV 25235
Subscriber and sylorn before me,	his 8 ^H day of _	Tuly , 20/3 my compared infras December 10
Hand 1. 18	iannon	Notary Public
My commission expires Al	cember 10 20,	08/09

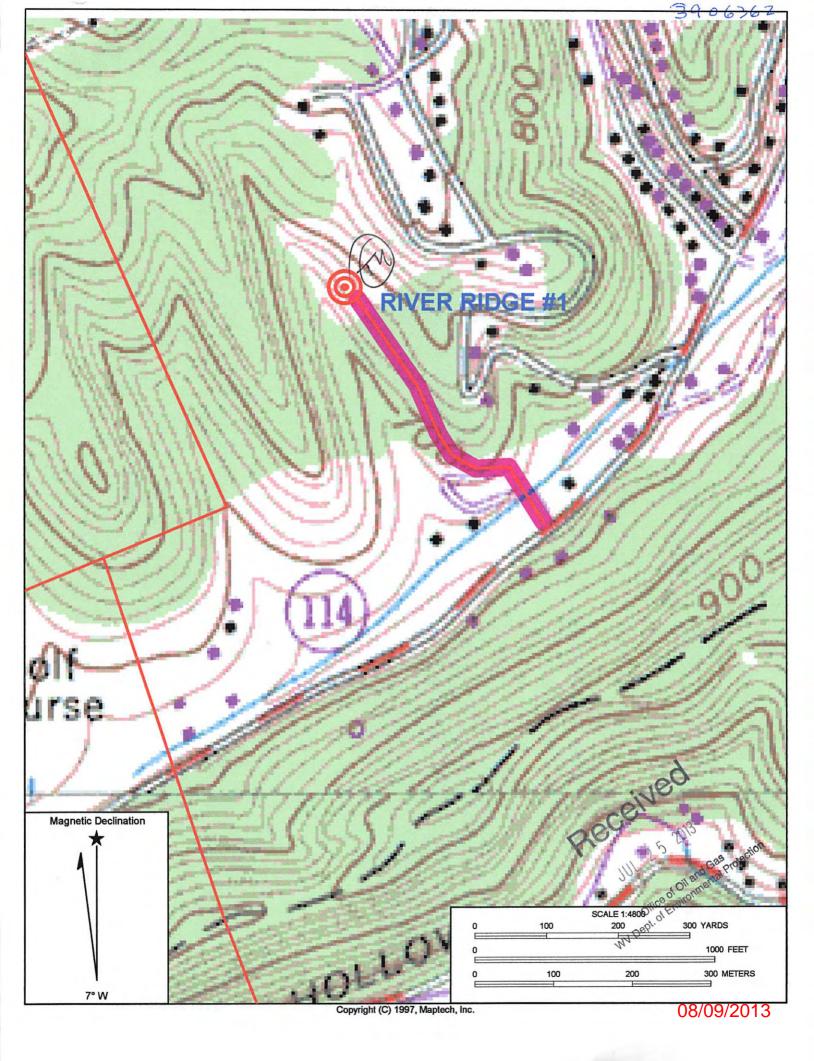
			Kivo Kigge	
Operators 1	Well	No.	MEADOWBROOK	#1

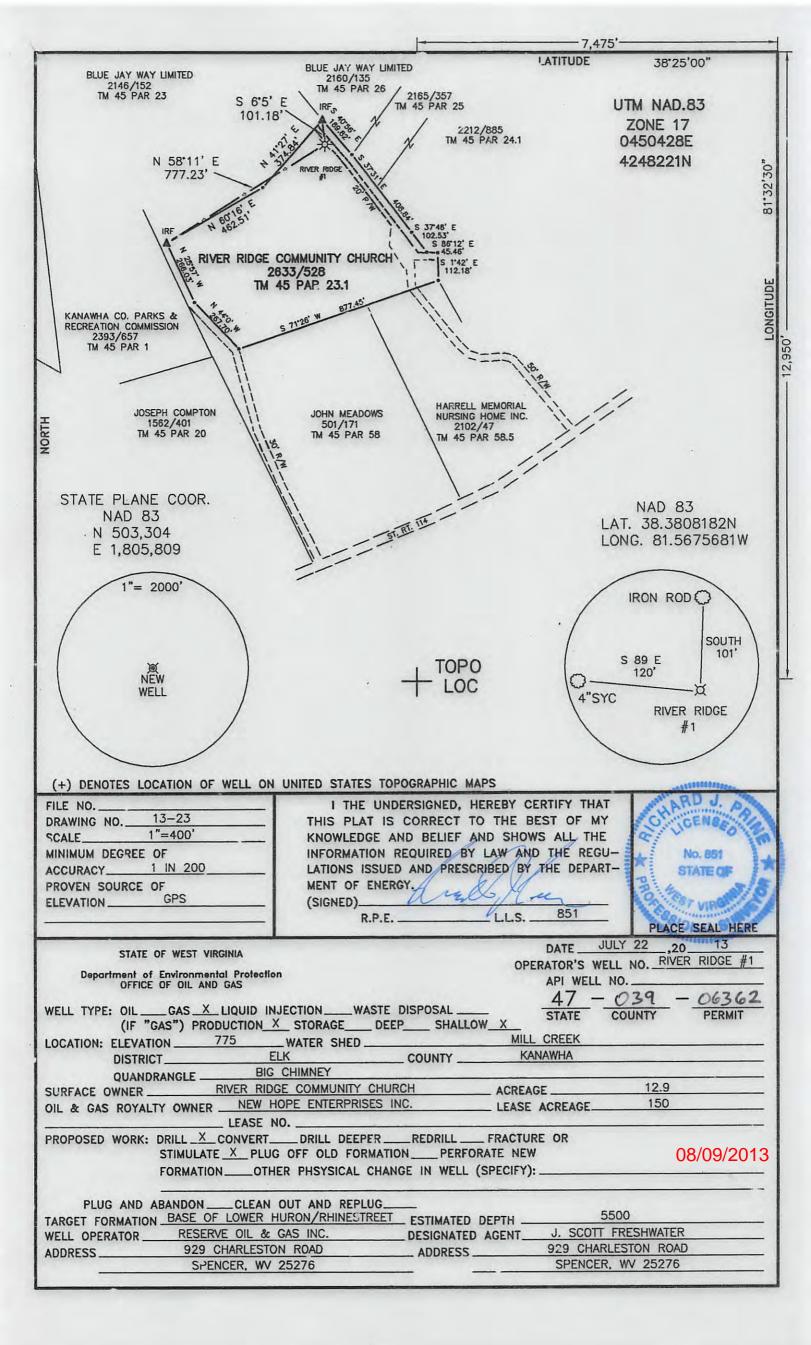
T	T	7	~	E	r	T	n
H,	ıГ		LT	Ľ	ľ	١.	L

Property Boundary	Diversion
Road	Spring O
Existing Fence —	Wet Spot
Planned Fence —/—/—/—	Drain Pipe with size in inches
Stream	Waterway ← ← ← ←
Open Ditch	Cross Drain
Rock	Artificial Filter Strip XXXXXXXXXXXX
North N	Pit: cut walls
Buildings	Pit: compacted fill walls
Water Well W	Area for Land Application of Pit Waste
Drill Site	
Proposed Revegetation Treatment: Acres Disturbed	1.5 Prevegetation pH5.5
Lime 3Tons/acre or	r to correct to pH
Fetilizer (10-20-20 or equivalent) 0.25	_ lbs/acre(500 lbs minimum)
Mulch HAY 2 Tons/ac	
Mulch	
—— Seed Mi	ixtures—
Area I	Area II
Seed Type lbs/acre	Seed Type Ibs/acre
Orchard Grass 25	Ladino Clover 5
Red Top Clover 15	Ky_3140
Attach: Drawing(s) of road, location, pit and proposed area for	land application.
	Visa
Photocopied section of involved 7.5' topographic sheet.	CC WB
Size Assert No. of Mark	land application. Pecel Ved Coil and Gas protection
Plan Approved by:	Oil and on the control of the contro
Comments:	Office of Cit and Gas Roberton
	- 20
Title: Insputu	Date: 74D wy De.
Field Reviewed? () Yes () No	

Title: Inspect Date: 7-9-13 ived	Proposed Revegetation Treats	ment: Acres Disturbed	d	Prevegetat	ion pH	
Mulch	Lime	Tons/acre or to co	orrect to pH			
Area I Seed Type Area II Seed Type Area II Seed Type Area II Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Date: 7-9-8 Field Reviewed? Yes No	Fertilizer (10-20-20	or equivalent)	lbs/acre (500	lbs minimum)		
Area I Seed Type Ibs/acre Seed Type Ibs/acre Area II Ibs/acre Seed Type Ibs/acre Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Date: 7-9-8 Field Reviewed? Yes No	Mulch		Tons/acre			
Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Date: 7-9-B Field Reviewed? Page 1bs/acre Seed Type 1bs/acre Ibs/acre Date: 7-9-B			Seed Mixtures			
Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Date: 7-9-13 Field Reviewed? No						
Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Date: 7-9-18 Field Reviewed? Pield Reviewed? Date: 7-9-18						
Drawing(s) of road, location, pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Date: 7-9-13 Field Reviewed? Date: 7-9-13 Plan Approved Proposed by: Date: 7-9-13 Plan Approved by: Date: 7-9-13			_ =			
Drawing(s) of road, location, pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Comments: Date: 7-9-13 Field Reviewed? Date: 7-9-13 Plan Approved Proposed by: Date: 7-9-13 Plan Approved by: Date: 7-9-13	A ttach:					
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Col	Title:	t	Date:_			eived

NOTE: RIVER RIDGE Any Trees 6" or larger in Diameter will be cut and #1 piled. Brush will be used as Sediment Barriers. Tempory seed and mulch all slopes upon construction. Stone over all Culverts. PIT SIZE: 25'X80' +/-LOCATION SIZE: 100'X200' +/-NOTE: EXISTING SITE FOR WELL PAD MOSTLY FLAT WITH VERY Hydr. B. Box Sorrow
Will sediment & Eosorow
All Sediment LITTLE CUT AND FILL **EXISTING** 10% 50' SITE SEDIMENT **POND** EXISTING SUMP **EXISTING** 18" CULVERT 250' OF Received 25 2013 15% 500 EXISTING 18' CONC. ROADWAY Office of Oil and Gas Protection 08/09/2013





OIL AND GAS LEASE

THIS LEASE, made and entered into this 2514	day of	Tirc	$\frac{1}{20}$, 20/ $\frac{3}{2}$ by and between:	New	Hope
Enterprises, LLC	• —				
3573 Coopers Creek Road					
Charleston, WV 25312					
hereinafter called Lessor(s) and RESERVE OIL & G	AS INC. 9	929 Charlestor	n Road Spencer WV 252	76 herei	in after
called Lessee.			2 110 me, openeon, 11 1 202	, 0, 11010.	
WITNESSETH:					
1. That the Lessor for and in consideration of the	he sum of	ONE DOLL	AR (\$1.00) and other goo	d and v	aluable
considerations in hand paid by the Lessee, the receipt of			•		
herein contained, hereby grants demises, leases and le		•	•	_	
purposes of prospecting, exploring by geophysical and		-			
and the constituents thereof, including coal bed methane				-	
operate, repair, maintain and remove pipelines, tele	• •	•	•	•	•
equipment and structures thereon to access, produce, s			· · · ·	= -	-
from the leasehold or produced from adjoining and ne		-	•	_	
term of this agreement for so long thereafter as operatio	-		•		
and other fluids into the subsurface strata, and any and			•		
economical operation of the lands for these purposes, sa	_		**		
Counties of Kanawha , State of WEST		_		substant	tially as
follows, to wit:					
Tax Map 45A, 45B, 45 Parcel(s) 23,23	3.1,24,24.1,	25,26,27,28,29	More fully describe	d in Dee	d Book
123 Page 331 known as George McClintic Farm .					
WATERS OF: Elk River			•		
ON THE NORTH BY: Blue Jay Way Limited					
ON THE EAST BY: M. Gillespie					
ON THE SOUTH BY: George K. Cabell					
ON THE WEST BY : John W. Wright					
hereinafter called "premises" being the same land conve	eved in who	le or in part to	Lessor by Deed dated	April 4	2003
from Alma Y. King, Clerk of Kanawha County					
Book 854 at page 85. For all purposes of this lease, the					
less. This lease covers all of the land above, and in a					
same extent as if they were described herein specifically					
a part of the tract or tracts described hereinabove. For					
them shall mean oil, or gas, or both and all substances					
bed methane gas, whether similar or dissimilar or produ					
2. This lease shall remain in force for a term of					and
as long thereafter as oil or gas is produced in payin	g quantities	or this lease	is maintained in force by	any sub	sequent
provision hereof.					
3. This lease however shall become null and void ninety (90) days from the effective date hereof, a we	and all rigi	hts of either pa	arty shall cease and termina on the premises or unless	the Less	s, within
thereafter nay a delay rental of \$5.00 Do	llars per act	re per year for	the first year, \$15.00 per ac	re for me	esecona
year and \$25.00 per acre for the third year, navmer	nts to be ma	ade annually.	until the commencement of	i a well.	. Upon
commencement of a well, the amount of any delay rer	stal previous	sly paid for the	at year shall be deducted fro	om any p	proceeds
due the Lessor on a prorated basis. 4. All money due under this lease shall be paid or the state of the stat					
4. All money due under this lease shall be paid of	Endered w	the Losser by	oncon muse payers are se-		
to:					and the
atat	address ab	ove	amble under this lease rega	rdless of	-
said named person shall continue as Lessor's agent to r in ownership in the premises, or in the oil and gas or	their cons	and an sums p tituents, or in	rentals or royalties accruing	g hereun	der until
taliane to the Tennes of notice of change of ownership	n as hereinaí	fter provided.			
5. I acces shall may I assor as revealty for all oil an	d the consti	ituents thereof.	, produced and saved from	any well	or wells
drilled on the leased premises, an amount equal to on sale of such oil in the tanks, pipelines or other faciliti	e eighth (1/3	8") or 12.5%	of net proceeds received of	Tessee	пош шо
	ituents and	related by-bto	difcis metellour memoris a	ш пата	, some or
coscous substances produced and saved from any sans	d or sands o	n the leased p	remises, an amount equal w	OHE-CIR	mm (110
> 12 50% of the net proceeds received by Lessee fit	om the sale	of such gas. (coalded memane gas, or me	COMPTION	
related by-products therefrom, at the point of sale to a net proceeds received by Lessee from the sale of su	ch oil gas	or coalbed m	nethane gas and constituent		がといい
and dusts therefrom at the point of sale. Lessee shall	he entitled	to deduct from	n such price received Lesso	ar a brob	OI UOIIAUC
	Lessee inch	uding, but not	limited to, Lessee's litterna	manar hi	GUUCHOII
costs, all transportation, gathering, compression, pr Lessee, by a non-affiliated third party associated with	the sale oil.	, gas, coaided :	memane gas, and pro consu	mone en	o romoo
has an direct thereform. In calculating the net proceed	s received b	ov Lessee at the	e dout of same sharted me i	DOMIT OF A	WITHOUT ONLY
oil, gas, coalbed methane or constituents and related	by-products	therefrom are			
Lessee to an unrelated third party.			111 5,2	c2	s Protection
			70.	Oil and Gi	1 bin.
			· 0/	-UU	

Office of Oil and Gas Protection

- 6. The consideration, land rentals, well rentals or royalties paid and to be paid, as herein provided, are and will be accepted by the Lessor as adequate and full consideration for all rights herein granted to the Lessee and further right of drilling or not drilling on the leased premise, whether to offset producing wells on adjacent lands or otherwise, as the Lessee may elect.
- 7. No well shall be drilled within 200 feet of the present buildings unless both parties consent thereto. The lessee shall bury all pipelines, except necessary above ground appurtenances, below plow depth. The Lessee shall pay all damages relating to growing crops, buildings, fences and trees caused by its operations under this lease. All reclamation of well sites, tank sites and other surface damage shall be completed in accordance with the rules and regulations of the Department of Energy, Division of Oil And Gas, of the state in which the well is drilled. Any damages if not mutually agreed upon, to be ascertained and determined by three disinterested persons, one thereof to be appointed by the Lessor, one to be appointed by the Lessee and the third to be appointed by the two so appointed, and the award of the three persons shall be final and conclusive. Each party shall pay any and all cost of the appraiser they have appointed and shall share the cost of the third appraiser.
- 8. If LESSORS own the surface, where the well is located, Lessee may, at their option and free of any charge from Lessors, allow the Lessor, at Lessor's sole risk and cost lay a pipeline to any one gas well on the premises, and take gas produced from said well for domestic use in one dwelling house on the leased premises, at Lessor's own risk, subject to the use and the right of abandonment of the well by the Lessee. The first one hundred fifty thousand (150,000) cubic feet of gas shall be taken free of cost, but all gas in excess of one hundred fifty thousand (150,000) cubic feet of gas taken in each year shall be paid for at the last published rates of the gas utility in the town or area nearest to the leased premises or the field market rate, whichever is higher. Lessor shall lay and maintain the said pipeline and furnish regulators and other necessary equipment at Lessor's expense. Lessor shall maintain the said pipeline, regulators and equipment in good repair and free of all leaks and operate the same so as not to cause waste or unnecessary leaks of gas. If the Lessor shall take excess gas as aforesaid in any year and fail to pay for the same, the Lessee may deduct payment for such excess gas from any rentals or royalties accruing the Lessor hereunder. Lessor agrees to hold Lessee and the well operator and all parties in interest in any well on the leasehold premises harmless from any claims of any nature whatsoever which may arise from the usage of gas from any such well by the Lessor his heirs, executors, administrators and assigns.
- 8a. IF LESSORS do not own any part of the surface, Lessee may, at their option and free of any charge from Lessors, allow the parties owning said surface to use said 150,000 cubic feet of gas per annum for domestic use in one dwelling house on said land. Said gas shall be taken and used wholly at user's own risk free of charge in safe and proper pipes and appliances, and said domestic gas user shall furnish and install, at their expense, the necessary regulating equipment and pipeline for the safe use of same. Lessee shall provide a connection for said pipeline at a producing gas well on said premises, or, at Lessee's option, at a point on Lessee's pipeline leading from said well. All gas used in excess of the above stated amount in any one calendar year shall be paid for by the user of same at a fair domestic rate. All gas so taken and used shall be subject to the use, operation and right of abandonment of the well and pipeline by Lessee, and Lessee shall not be held liable for any accident or damage caused by the use of such gas, nor shall Lessee be liable for any shortage or failure in the supply of gas for said domestic use. If, in Lessee's opinion, this right is being abused in any way, then Lessee has the right to discontinue said privilege by disconnecting the free gas pipeline from said well or from pipeline leading therefrom.
- 9. If during the primary term hereof, a well is drilled and is a dry hole and is plugged according to law, the Lessee may continue the primary term in effect by either commencing operations for the drilling of a subsequent well, or by resuming payment of said delay rentals, before the expiration of ninety (90) days from the said plugging date. In the event a well is commenced during the primary term hereof, but is a dry hole and is plugged following the expiration of the primary term, then the primary term shall be extended for ninety (90) days from said plugging date.
- 10. Lessee shall upon the completion of the first productive well upon said premises, or upon lands pooled therewith, make a diligent effort to obtain a pipeline connection but delay shall not be cause for cancellation of this agreement, provided that Lessee shall resume delay rental payments for quarterly periods, beginning one year from the date that the first productive well is completed until said first well is connected to a pipeline. Likewise, in the event such a well is shut-in for any reason after having produced in paying quantities, Lessee shall make shut-in royalty payments in the amount of five dollars (\$5.00) per acre, per year, beginning one year from the date such well is shut-in, provided that the well has not produced during that year, and continuing until said well is returned to production.
- 11. No change of ownership in the leases premises or in any interest therein hereunder, shall be binding upon the Lessee until thirty (30) days after written notice, by registered U.S. Mail, of such change and a certified copy or original instrument is presented to the Lessee demonstrating such change. The rights of either party hereunder may be assigned, in whole or in part, and the provisions hereof shall extend to their heirs, successors and assigns of the parties hereto.
- 12. The respective amounts of delay rentals, royalties and other payments are to be calculated in proportion to Lessor's interest in such rights with respect to which each such payment is made that is, in case the Lessor owns less of an interest in any such rights than the full and entire interest therein, then the payments in respect to such rights shall be paid to the Lessor in the proportion which Lessor's interest in such rights bears to the entire interest in such rights.
- 13. Lessor grants unto the Lessee the right to pool into separate drilling or production unit(s), as to any one or more formations, said land or any part thereof and the leasehold estates therein in the vicinity of said land, whether contiguous or noncontiguous, held by Lessee or other Lessees, when in Lessee's judgement, it is necessary or advisable to create such pools to develop and operate efficiently such lands. Any such unit may not exceed six hundred forty (640) acres provided, however, that larger pools may be created to conform to any well spacing or unit prescribed by any governmental authority. Lessee, alone or with other Lessees, may form any pool before or after completion of the well thereon by recording in the county wherein the pooled land(s) are located, a declaration of such pooling and by mailing a copy thereof to Lesser.
- Neither the pooling nor the provision hereof shall operate as a transfer of title of any interest in the leased premises. The commencement of a well, the conduct of other drilling operations, the completion of a well or of a dry hole, or the operation of a producing well on the pooled area, shall be considered for all purposes (except as to royalties) as if said well were located on, or such drilling operations were conducted upon, the lands covered by this lease whether or not such well is located upon, or drilling operations are conducted upon, said lands. The royalties provided for in Paragraph phereof shall be tendered or paid to Lessor in the proportion that Lessor's acreage in the pooled area(s) bears to the total located upon, area, Lessoe shall have the right but not the obligation, to reduce, enlarge, or modify such pools at any time. The typelties are such other payments tendered or paid thereafter shall then be based on the proportionate acreage and interest in the revised pool. At any time the pool is not being operated as aforesaid, the declaration of pooling may be surrender and canceled of record. Such cancellation or surrender shall not affect a surrender or cancellation of the lease.
- 14. The Lessee shall have the privilege of using sufficient oil, gas and water, except water from Lessor's well of operating the premises and the right at any times during or after the expiration of this lease to remove all pips, well casing, machinery, equipment or fixtures placed on the premises. The injection of water, brine or other fluids into substirface strata shall be made only by Lessee's operations. The Lessee shall have the right of surrender of this lease or any portion thereof by

W Dept

written notice to the Lessor describing the portion which it elects to surrender, or by recording the surrender or partial surrender of this lease, any of which shall be a full and legal surrender of this lease as to all of the premises or such portion thereof as the surrender shall indicate and a cancellation of all liabilities under the same and all parties hereto relating in any way to the portion or all the premises indicated on said surrender, and the delay rental hereinbefore set forth shall be reduced in proportion to the acreage surrendered.

- 15. In the event the Lessee is unable to perform any of the acts to be performed by the Lessee by reason of force majeure including but not limited to acts of God, strike, riots, and governmental restrictions including but not limited to restrictions on the use of roads, this lease shall nevertheless remain in full force and effect until the Lessee can perform said act and no event shall the lease expire for a period of ninety (90) days after the termination of any force majeure. Lessee to provide written notice to Lessor of invocation of force majeure.
- 16. Lessor hereby warrants and agrees to defend title to the said lands and interest into the leasehold estate created by this instrument. Lessor further warrants that the lands hereby leased are not subject to any valid prior oil and gas leases. Lessee may purchase or lease the rights of any party claiming any interest in said land and exercise such rights as may be obtained thereby and Lessee shall not suffer any forfeiture nor incur any liability to Lessor by reason thereof. Lessee shall have the right at any time to pay for Lessor any mortgage, taxes or other lien on said lands, in the event of default of payment by Lessor, and then be subrogated to the rights of the holder thereof. Any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due to Lessor under this lease.
- 17. In to event Lessor considers that the Lessee has not complied with all its obligations hereunder, both express and implied, Lessor shall notify Lessee in writing setting out specifically in what respects Lessee has breached this contract. Lessee shall have thirty (30) days after receipt of said notice within to meet or commence to meet all or any part of the breaches alleged by the Lessor. The service of such notice shall be precedent to bringing of any action by Lessor on said lease for any cause, and no action shall be brought until the lapse of thirty (30) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder.
- 18. It is mutually agreed that this instrument contains and expresses all of the agreements and understandings of the parties in regard to the subject matter thereof, and no covenant, agreement or obligation shall be read into this agreement or imposed upon the parties or either of them.
- 19. It is hereby understood and agreed that, if any abandoned well or wells of any kind exist on any part of this lease, any such abandoned well or wells, together with a twenty-five foot radius around the well bore, are excepted and reserved from this lease down to its original depth. It is further expressly understood and agreed that any such abandoned well or wells shall be and remain the sole responsibility of the original owners of said well or wells and that the Lessee shall have no duty plug or reclaim said wells. Storage wells shall not be allowed.

IN WITNESS WHEREOF, and intending to be legally bound, the Lessors have set their hands and seals the day and year first above written. Signed and acknowledged in the presence of:
WITNESS:

New Hope Enterprises, LLC

A P Sharm Ir

Page Homer

STATE OF WEST VIRGINIA

COUNTY OF Kanauma, } To-wit:

BY: Hazel Sharp

ACKNOWLEDGEMENT

Received

08/09/2013

3906362

_____, a Notary Public of said County, do hereby certify that A.P. Sharp Jr., Hazel Sharp, and Peggy Hamer d b a New Hope Enterprises, LLC, whose names are signed to the within writing has this day acknowledged the same before me in my said county. Given under my hand this 25th day of Tre, 2013. Notary Public My Commission expires: April 27, 2017

Return to and Prepared by Reserve Oil & Gas Inc. 929 Charleston Road Spencer, WV 25276

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
WILLIAM T DOUGLASS, JR
204 SENECA VALLEY ESTATES
CHARLESJON, WV 25320
My commission expires April 27, 2017

RESERVE OIL & GAS LEASE WV.doc

Receives/09/2013 W Dept. of Environmental Protection