

#### 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

April 17, 2015

#### WELL WORK PERMIT

#### Horizontal 6A Well

This permit, API Well Number: 47-9502241, issued to NOBLE ENERGY, 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: SHR 30 DHS

Farm Name: SECKMAN, ALLEN W. ET AL

API Well Number: 47-9502241

Permit Type: Horizontal 6A Well

Date Issued: 04/17/2015

# PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. 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 § 22-6A-5a (12), 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.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
- 9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

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

1) Well Operator: Noble Energy	, Inc.	494501907	095-Tyler	Mc Elroy	Shirley
		Operator ID	County	District	Quadrangle
2) Operator's Well Number: SH	R 30 DHS	Well Pad	Name: SHR	30	
3) Farm Name/Surface Owner:	Allen W. Seckman, et al	Public Road	d Access: Cou	ınty Rt. 5	8
4) Elevation, current ground:	921' Ele	evation, proposed j	post-construction	on: 920'	
5) Well Type (a) Gas	Oil	Unde	rground Storag	e	
Other					
(b)If Gas Sha	llow _	Deep			
Hor	izontal				
6) Existing Pad: Yes or No No					
<ol> <li>Proposed Target Formation(s)</li> <li>Marcellus 6514 - 6578' / 64'</li> </ol>			nd Associated	Pressure(s):	
8) Proposed Total Vertical Dept	n: 6,568'				
9) Formation at Total Vertical D	epth: Marcellus				
10) Proposed Total Measured De	epth: 16,213'				
11) Proposed Horizontal Leg Le	ngth: 8763'		<del></del>		
12) Approximate Fresh Water St	rata Depths:	466'			
13) Method to Determine Fresh	Water Depths: n	earest offset well	S		
14) Approximate Saltwater Dept	hs: _1761'				
15) Approximate Coal Seam De	pths: None				
16) Approximate Depth to Possi	ble Void (coal mi	ne, karst, other): 1	None		
17) Does Proposed well location directly overlying or adjacent to		Yes	No	V	
(a) If Yes, provide Mine Info:	Name: NA				
	Depth:		50,00 (0,000)	100	
	Seam:	0	RECEIVE		
	Owner:				

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WV Department of Environmental Protection

### 18)

## CASING AND TUBING PROGRAM

TYPE	Size	New	Grade	Weight per ft.	FOOTAGE: For	<b>INTERVALS:</b>	CEMENT:
		<u>or</u> <u>Used</u>		(lb/ft)	Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor	20"	New	LS	94	40' minimum or to next competent formation, but no deeper than 1st freshwater	40' minimum or to the next competent formation, but no deeper than 1st freshwater	Fill/Soil to surface
Fresh Water	13 3/8"	New	J-55	54.5	566' or to next competent formation not deeper than elevation.	566' or to next competent formation, but no deeper than elevation.	CTS 30% excess Yield =1.18
Coal							
Intermediate	9 5/8"	New	J-55	36.0	2373' or 250' below the fifth sand	2373' or 250' below the fifth sand	CTS 20% excess Yield = 1.19
Production	5 1/2"	New	P-110	20.0	16,213'	16,213'	10% excess Yield = 1.27 TOC=200' above 9.625" shoe
Tubing							11
Liners							

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438	2730	Stabilize to surface with fill/soil	to surface
Fresh Water	13 3/8"	17.5"	0.380	2730	Type 1	30% excess Yield = 1.18
Coal						
Intermediate	9 5/8"	12.38"	.352	3520	Class A	20% excess Yield = 1.19 to surface
Production	5 1/2"	8.75" - 8.5"	.361	12,640	Class A	10% excess Yield = 1.27 TOC=200' above 9.625" shoe
Tubing						
Liners						

MAG 12-17-2014

## **PACKERS**

Kind:		
Sizes:		
Depths Set:		

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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:
Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6568 feet. Drill Horizontal leg - stimulate and produce the Marcellus Formation. Should we encounter formation issues, set the 13 3/8 into next competent formation but not deeper than elevation. Should we encounter a unanticipated void we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface.
20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:
The stimulation will be multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals our maximum pressure is not to exceed 10,000 lbs. Please refer to attached list.
21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres):  41.57
22) Area to be disturbed for well pad only, less access road (acres):  7.42
7.42
22) Area to be disturbed for well pad only, less access road (acres):  7.42
22) Area to be disturbed for well pad only, less access road (acres):  23) Describe centralizer placement for each casing string:  Conductor - No centralizers used. Fresh Water/Surface - Bow spring centralizers on first two joints then every third joint to 100' from surface. Intermediate - Bow Springs centralizers every third joint to 100' from Surface. Production - Rigid bow
22) Area to be disturbed for well pad only, less access road (acres):  23) Describe centralizer placement for each casing string:  Conductor - No centralizers used. Fresh Water/Surface - Bow spring centralizers on first two joints then every third joint to 100' from surface. Intermediate - Bow Springs centralizers every third joint to 100' from Surface. Production - Rigid bow springs every third joint from KOP to TOC, rigid bow springs every joint to KOP.

Conductor - The hole is drilled w/ air and casing is run in air. Apart from insuring the hole is clean via air circulation at TD, there are no other conditioning procedures. Fresh Water/Surface -The hole is drilled w/air and casing is run in air. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement. Intermediate - Once surface casing is set and cemented Intermediate hole is drilled either on air or SOBM and filled w/ KCl water once filled w/ KCl water once drilled to TD. The well is conditioned with KCl circulation prior to running casing. Once casing is at setting depth, the well is circulated a minimum of one hole volume prior to pumping cement. Production - The hole is drilled with synthetic oil base mud and once at TD the hole is circulated at maximum allowable drilling pump rate for at least 6X bottoms up. Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement.

\*Note: Attach additional sheets as needed.
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F	Fresh Water Protetcion String:	Cement Additives	
Allied Material Name	Additive (Material) Type	Additive (Material) Description	CAS#
CCAC (Class A Common)	Base Cement		65997-15-1
		1	10043-52-4
CA-100	Accelerator	White flake	7447-40-7
			7732-18-5
			7647-14-5
CLC-CPF (Cellophane Flakes)	Lost Circulation Aid	White and colored flake	Non-Hazardous

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LP @ 6																	×					×				WELLBORE DIAGRAM	Azm	Ground Elevation			۲	
@ 6568' TVD / 7450' MD	***************************************		8.75" - 8.5" Lateral						8.75* Curve						8.75" Vertical					12 3/8				17 1/2	24	HOLE						
×	X								HCP-110	20#	F-1/2"								Video-Parket Section	9-5/8" 36# HCK-55 LTC				13-3/8" 54.5# J-55 BTC	20" 94#	CASING	210°	920'			noble energy	
8.75/8. 5-11	***	Onondaga	TD	Marcellus	Hamilton	Tully Limestone	Burkett	West River	Middlesex	Cashaqua	Alexander	Benson	Lower Huron	Warren Sand	Gordon	Top Devonian Shale	Berea	Int. Casing	Weir	Price Formation	Big Injun	Big Lime	Int. Casing		Conductor	GEOLOGY				97	<b>S</b>	
8.75 / 8.5 Hole - Cemented Long String 5-1/2" 20# HCP-110 TXP BTC		6578	16213	6514	6497	6494	6460	6392	6358	6247	5248	5004	3834	3436	2943	2525	2517	2373	2326	2173	2119	2048	566		40	TOP	,,					
nented Lon		6585	6568	6578	6514	6497	6494	6460		6358	5306	5048		3482	2962		2525	2373	2430		2173	2119	566		40	BASE	SHR-30	SHR-3	SHR-30			
g String TC	X	000	12.5ppg	120000				1	12.5ppg SOBM	12.0ppg-					SOBM	8.0ppg -				AIR				AIR	AIR	MUD	D BHL	OD LP (	D SHL			
X	× × × × × × × × × × × × × × × × × × ×					above 9.625" shoe	TOC >- 200'	Yield=1.27	10% Excess	reducer	0.45% high temp	+2.6% Cement extender, 0.7% Fluid Loss additive.	System	14.8ppg Class A 25:75:0				To Surface	20% Excess Yield=1,19	0.125#/sk Lost Circ	+0.4% Ret, 0.15% Disp.	15.6ppg Class A	rieid = 1.18	15.6 ppg Type 1 + 2% CaCl, 0.25# Lost Circ 30% Excess	To Surface	CEMENT	SHR-30D BHL (Lat/Long)	SHR-30D LP (Lat/Long)	SHR-30D SHL (Lat/Long)			
+/-876	Rigid Bow Spring every			Rigid Bow Spring every third joint from KOP to TOC					feet from surface.	every third joint to 100'	Bow spring centralizers		surface	Bow Spring on first 2 joints then every third joint to 100' form	ΝΊΑ	CENTRALIZERS	(3275)	(33579	(33548	Tyler Co	SHR-30D-HS (											
+/-8763' ft Lateral							pumping cement.	hole volume prior to	on bottom with casing, circulate a minimum of one	least 6x bottoms up. Once	Once at TD, circulate at max allowable pump rate for at							cement.	volume prior to pumping	at setting depth, circulate a	drilled to TD. Once casing is	Fill with KCI water once	cement.	Fill with KCI water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole	Ensure the hole is clean at TD.	CONDITIONING	(327553.14N, 1631593.48E) (NAD27)	(335790.82N, 1628595.22E) (NAD27)	(335480.55N, 1628421.33E) (NAD27)	inty, WV	DRILLING WELL PLAN HR-30D-HS (Marcellus HZ) Macellus Shale Horizontal Tyler County, WV	
LP @ 6568' TVD /7450'  MD  5-1/2" 20# HCP-110 TXP BTC  4/-8763' ft Lateral  4/-8763' ft Lateral								due to hole conditions	Note:Actual centralizer	Burst=12640 psi	Once at 1D, circulate at max Production casing = 0.361" wall allowable pump rate for at								Burst=3520 psi	the 5th Sand. Intermediate	_			Intermediate casing = 0.380" wall thickness Burst=2730 psi	Stabilize surface fil/soil. Conductor casing = 0.438" wall thickness Burst=2730psi	COMMENTS	E) (NAD27)	E) (NAD27)	E) (NAD27)			

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API Number 47 - 095

Operator's Well No. SHR 30 DHS

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

#### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name_Noble Energy, Inc.	OP Code 494501907
Watershed (HUC 10) huc-10 Mc Elroy Creek	Quadrangle Shirley
Elevation 921' County 095-Tyler	District Mc Elroy
Do you anticipate using more than 5,000 bbls of water to complete to Will a pit be used? Yes No	
If so, please describe anticipated pit waste:closed loop	
Will a synthetic liner be used in the pit? Yes No	If so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	MAG 12-17-201
Land Application Underground Injection (UIC Permit Num Reuse (at API Number_at next anticipated Off Site Disposal (Supply form WW-9 form Care of the C	mber see attached sheet )
Will closed loop system be used? If so, describe: Yes	
Drilling medium anticipated for this well (vertical and horizontal)?	Air, freshwater, oil based, etc. Air/water based mud through intermediate string then SOBM
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	
Additives to be used in drilling medium? Please see attached sheet	
Drill cuttings disposal method? Leave in pit, landfill, removed offsir	te, etc
-If left in pit and plan to solidify what medium will be used	? (cement, lime, sawdust)
-Landfill or offsite name/permit number? please see attack	ned sheet
on August 1, 2005, by the Office of Oil and Gas of the West Virginian provisions of the permit are enforceable by law. Violations of any law or regulation can lead to enforcement action.	mined and am familiar with the information submitted on this my inquiry of those individuals immediately responsible for accurate, and complete. I am aware that there are significant
Company Official Signature	Official Seal
Company Official (Typed Name) Kim Warc	Notary Public State of West Virginia
Company Official Title_Regulatory Analyst	Dolores J Swiger 235 Cottage Avenue Weston WV 26452 My Comm. Exp. 9-19-23
Subscribed and sworn before me this 15 day of	, 20 15 Office of Oil & Gas
Had Duy	Notary Public JAN 2 94/15/2015
My commission expires 09/19/2023	

04/17/2015

Form WW-9				Operator's W	ell No.	SHR 30 DHS
Noble Energy	, Inc.					
Lime	Treatment: Acres Disturbed Tons/acre or to corre 10-20-20 or equal	ect to pH _	Prev		6.0	
	500 punt_		re			
	or Straw at 2	Tons/acre				
		Seed M	<u>ixtures</u>			
	Temporary			Permar	ient	
Seed Type	lbs/acre		Seed '	Гуре	ij	lbs/acre
Tall Fescue	40	<del></del> =	Tall Fescue		40	
Ladino Clover	5		Ladino Clover		5	
Photocopied section of Plan Approved by:	f involved 7.5' topographic sheet.			ered plans inc	luding t	his info have be
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Title: Oil and Gas I	nspector		Date: 12 -	17-01	312/	

(\_\_\_\_\_) No

Field Reviewed?

#### Additives to be used in drilling medium:

Calcium Chloride Powder

Carbo Tec

Carbo Gel2

Carbo Tec S

Ecco-Block, Lime

MIL-Carb TM

Mil-Clean

Mil-Seal

Next base eC, Next Drill

**Next Hold** 

**Next Mul** 

**Omni Cote** 

Mil Bar

**Next Mul HT** 

Soda Ash

Potassium Chloride

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# **Cuttings Disposal/Site Water**

#### **Cuttings – Haul off Company:**

Eap Industries, Inc. DOT # 0876278 1575 Smith Two State Rd. Atlasburg, PA 15004 1-888-294-5227

Waste Management 200 Rangos Lane Washington, PA 15301 724-222-3272

Environmental Coordination Services & Recycling (ECS&R) 3237 US Highway 19
Cochranton, PA 16314
814-425-7773

#### **Disposal Locations:**

Apex Environnemental, LLC Permit # 06-08438 11 County Road 78 Amsterdam, OH 43903 740-543-4389

Westmoreland Waste, LLC Permit # 100277 111 Conner Lane Belle Vernon, PA 15012 724-929-7694

Sycamore Landfill Inc. Permit #R30-079001 05-2010 4301 Sycamore Ridge Road Hurricane, WV 25526 304-562-2611

Max Environnemental Technologies, Inc. facility Permit # PAD004835146 / 301071 233 Max Lane Yukon, PA 25968 724-722-3500

Max Environnemental Technologies, Inc. Facility Permit # PAD05087072 / 301359 200 Max Drive Bulger, PA 15019 724-796-1571

Waste Management Kelly Run Permit # 100663 1901 Park Side Drive Elizabeth, PA 15037

Waste Management South Hills (Arnoni) Permit # 100592 3100 Hill Road Library, PA 15129 724-348-7013

Waste Management Arden Permit # 100172 200 Rangos Lane Washington, PA 15301 724-222-3272

Waste Management Meadowfill Permit # 1032 1488 Dawson Drive Bridgeport, WV 26330

Brooke County Landfill Permit # SWF-103-97 / WV 0109029 Rd 2 Box 410 Colliers, WV 26035 304-748-0014 Received Office of Oil & Gas

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185 Rt 1 Box 156A New Martinsville, WV 26035 304-455-3800

Energy Solutions, LLC Permit # UT 2300249 423 West 300 South Suite 200 Salt Lake City, UT 84101

Energy Solutions Services, Inc. Permit # R-73006-L24 1560 Bear Creek Road Oak Ridge, TN 37830

#### **Water Haul off Companies:**

Dynamic Structures, Clear Creek DOT # 720485 3790 State Route 7 New Waterford, OH 44445 330-892-0164

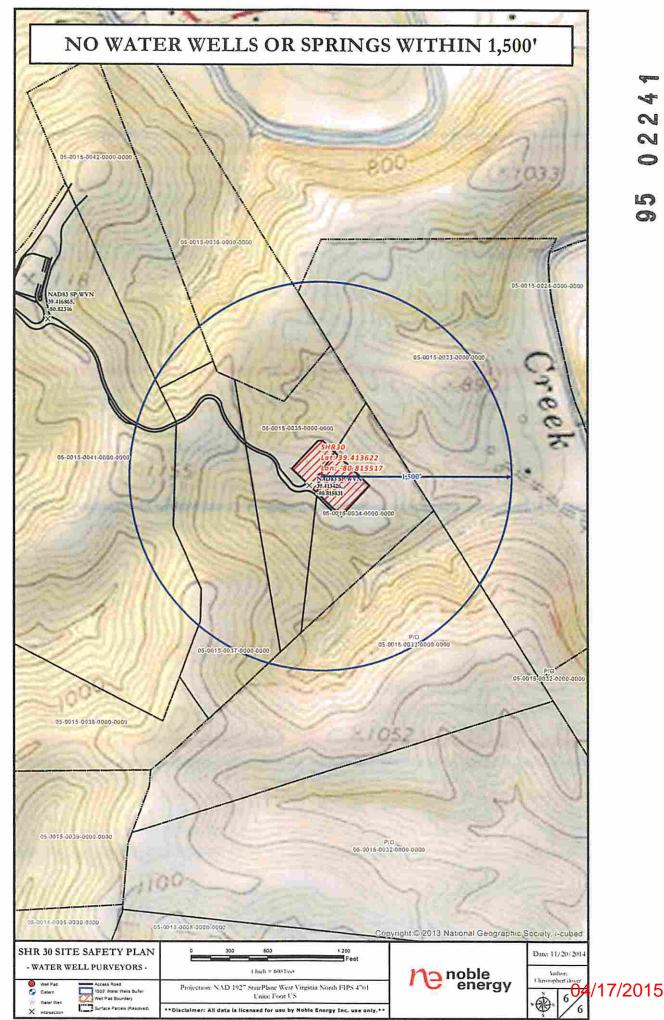
#### **Disposal Locations:**

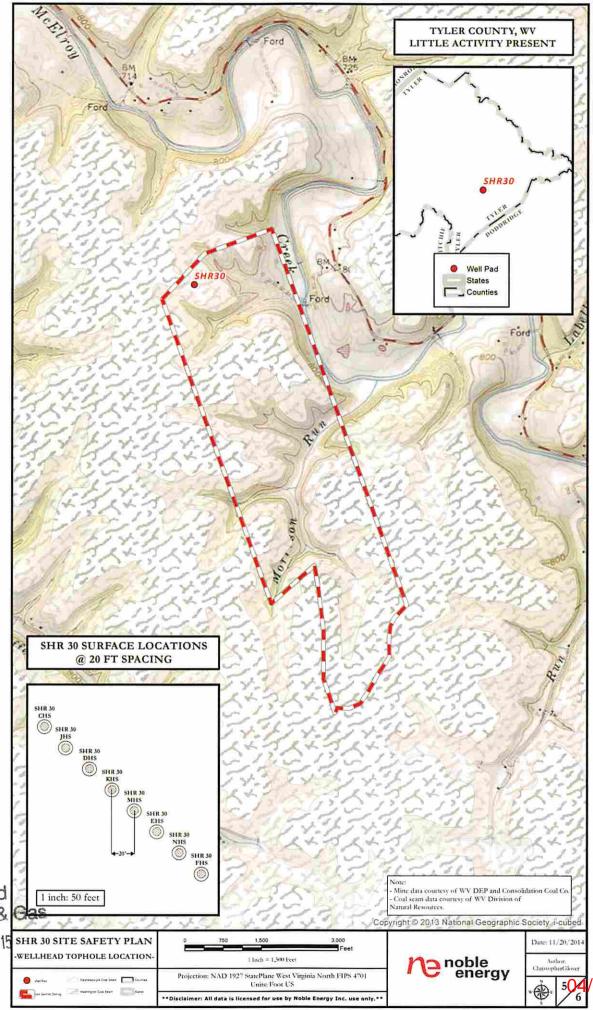
Solidification Waste Management, Arden Landfill Permit # 100172 200 Rangos Lane Washington, PA 15301 724-225-1589

Solidification/Incineration Soil Remediation, Inc. Permit # 02-20753 6065 Arrel-Smith Road Lowelville, OH 44436 330-536-6825

Adams #1 Permit # 34-031-2-7177 23986 Airport Road Coshocton, OH 43812 740-575-4484

Adams #2 Permit # 34-031-2-7178 740-575-4484

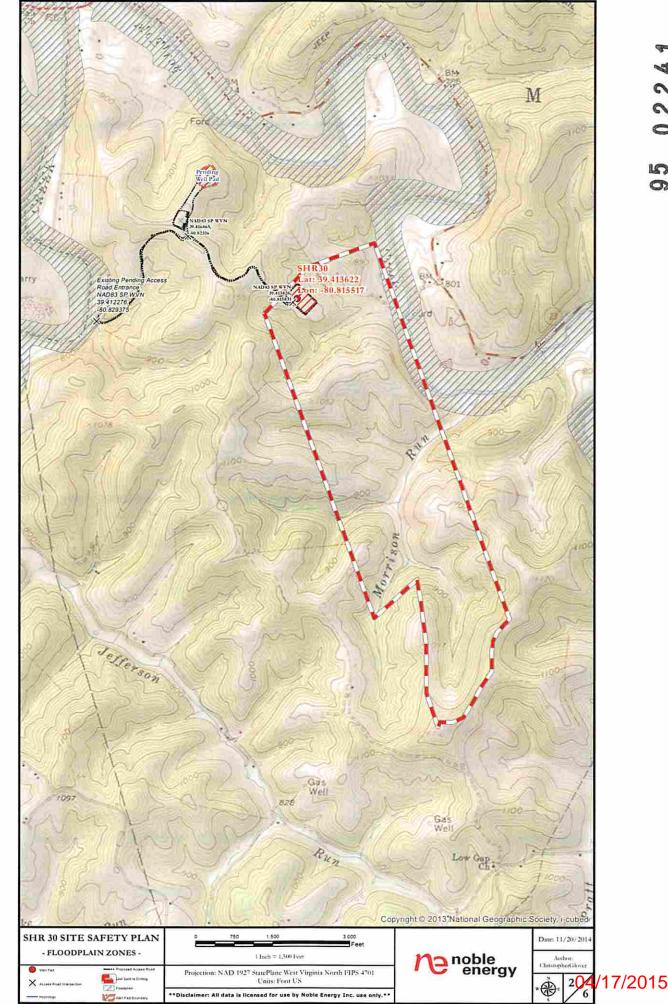


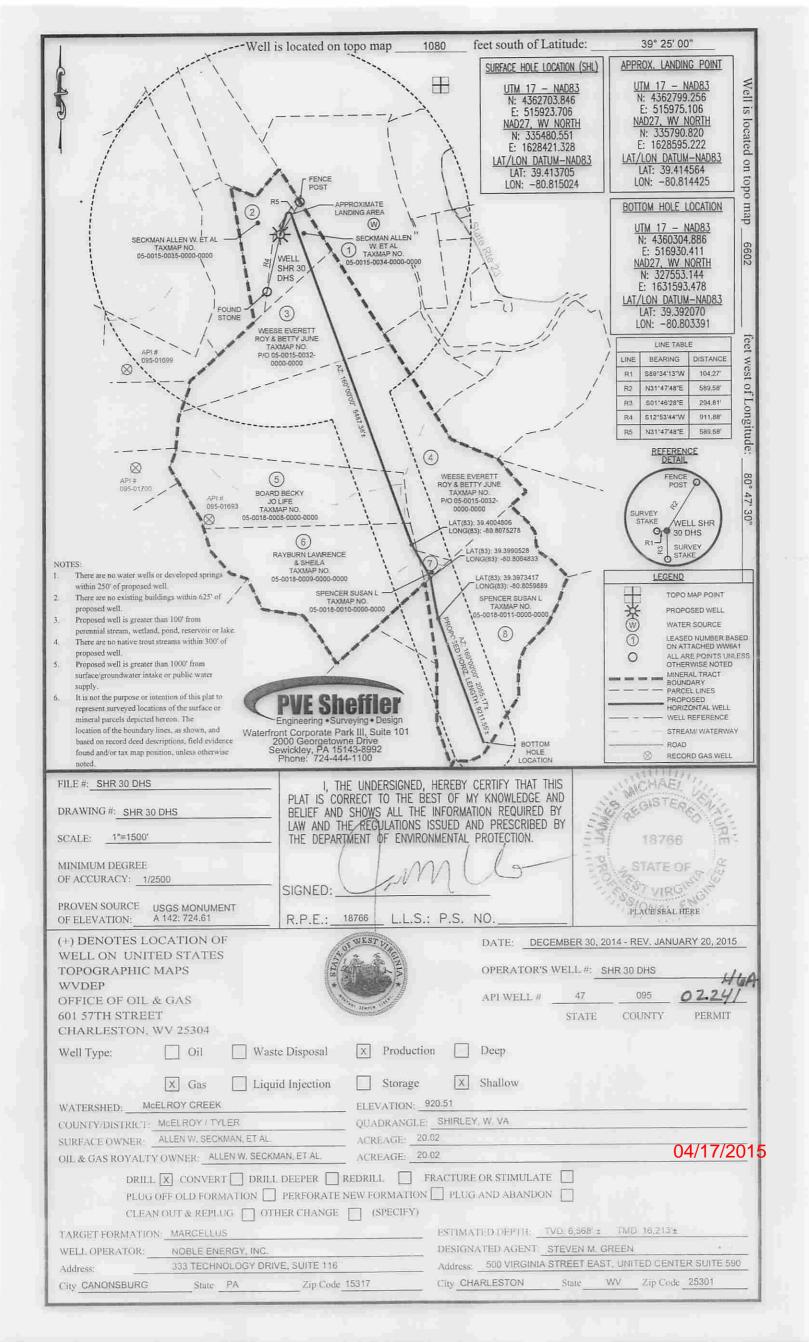


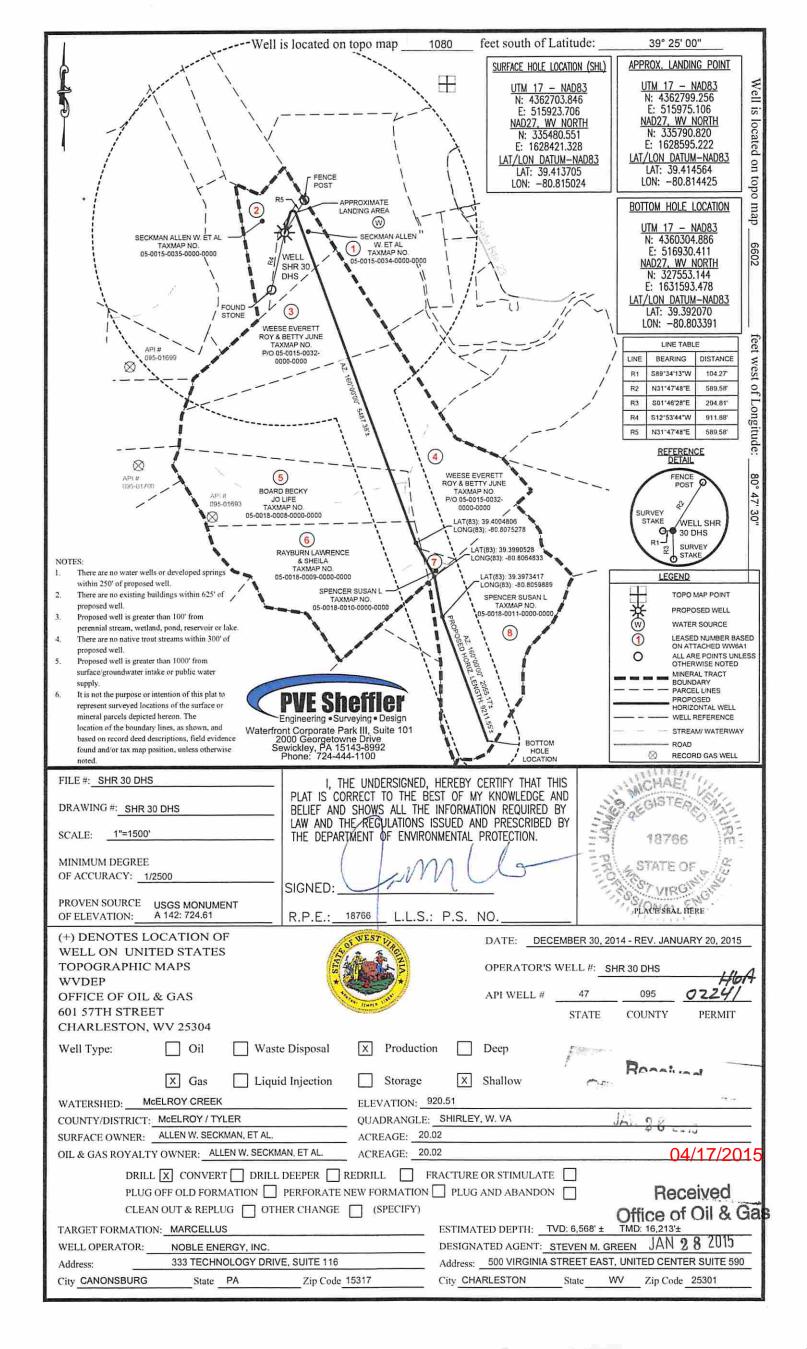
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(5)	(13)	

Operator's Well No. SHF	R30DHS
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# INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) 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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
DAD36993001	Lillie Seckman	Drilling Appalachia Corporation	not less than 1/8	DB 202-513
DAD36993001	Drilling Appalachia Corporation	Dominion Appalachian Development Properties, LLC	N/A	DB 322-190
DAD36993001	Dominion Appalachian Development Properties, LLC	Consol Gas Appalachian Development Properties, LLC	N/A	COI 9-124
DAD36993001	Consol Gas Appalachian Development Properties, LLC	Consol Gas Reserves, Inc.	N/A	COI 9-144
DAD36993001	Consol Gas Reserves, Inc.	Consol Gas Company	N/A	COI 9-156
DAD36993001	Consol Gas Company	CNX Gas Company, LLC	N/A	COI 17-1

#### 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 hereby acknowledges 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
- U.S. Fish and Wildlife Service
- · County Floodplain Coordinator

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 needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:	NOBLE ENERLY, INC.
By:	MOH
Its:	OPERATIONS LANDMAN

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Lease Name or Number	Grantor, Lessor, etc.	Guarden Lassan etc		n
1: Continued: DAD36993001	CNX Gas Company, LLC	Grantee, Lessee, etc. Noble Energy, Inc.	Royalty N/A	Book/Page DB 388-286
2: DAD36993001	Lillie Seckman	Drilling Appalachia Corporation	not less than 1/8	D8 268-475
DAD36993001	Drilling Appalachia Corporation	Dominion Appalachian Development Properties, LLC	N/A	D8 322-190
DAD36993001	Dominion Appalachian Development Properties, LLC	Consol Gas Appalachian Development Properties, LLC	N/A	COI 9-124
DAD35993001 DAD36993001	Consol Gas Appalachian Development Properties, LLC Consol Gas Reserves. Inc.	Consol Gas Reserves, Inc.	N/A	COI 9-144
DAD36993001	Consol Gas Company	Consol Gas Company CNIX Gas Company, LLC	N/A N/A	COI 9-156 COI 17-1
DAD36993001	CNX Gas Company, LLC	Noble Energy Inc.	N/A	D8 388-286
No Lease Number	Donald and Dora Seckman	Noble Energy Inc.	not less than 1/8	D8 471-686
3. No Lease Number	Roy D. Hadley	Керсо	I at a (a	
2. We could harried	Jay Bee Production	Kepco	not less than 1/8 not less than 1/8	D8 232-30 D8 232-30
	Donald Seckman	Керсо	not less than 1/8	DB 232-30
	Thomas W. Furbee	Керсо	not less than 1/8	DB 232-30
	Betty Weese & Roger Weese Linda Weese	Kepco	not less than 1/8	08 232-30
	Kepco	Kepco Peake Energy, Inc.	not less than 1/8 N/A	08 232-30 08 319-291
	Peake Energy, Inc.	Four Leaf Land Company	N/A	DB 403-566
	Four Leaf Land Company	Antero Resources Appalachian Corporation	N/A	D8 403-566
	Antero Resources Appalachian Corporation Ralph T. Sweeney	Noble Energy, Inc. Four Leaf Land Company	N/A	D8 422-517
	Anna Sweeney	Four Leaf Land Company	not less than 1/8 not less than 1/8	08 370-599 08 370-635
	Lamoyne Sweeney	Four Leaf Land Company	not less than 1/8	DB 370-617
	Gloria A. Morris	Four Leaf Land Company	not less than 1/8	08 397-669
	Donald L. Sweeney Devon R. Horsley	Four Leaf Land Company	not less than 1/8	08 370-605
	Rodger A. Sweeney	Four Leaf Land Company Four Leaf Land Company	not less than 1/8 not less than 1/8	D8 370-629 D8 370-611
	Four Leaf Land Company	Antero Resources Appalachian Corporation	not less than 1/8	08 403-561
	Antero Resources Appalachian Corporation	Noble Energy, Inc.	N/A	DB 422-517
	Mary S. Furbee Zebley Thomas Val Furbee	Noble Energy, Inc.	not less than 1/8	D8 440-447
	Thomas Val Furbee Allison Furbee Hardin	Noble Energy, Inc. Noble Energy, Inc.	not less than 1/8 not less than 1/8	08 440-443 08 440-453
	Rani J. Boyt	Noble Energy, Inc.	not less than 1/8	DB 445-835
	Mary Chidester	Noble Energy, Inc.	not less than 1/8	08 449-523
	Thomas Daniel Spencer	Noble Energy, Inc.	not less than 1/8	08 449-553
	Norma R. Spencer, Trustee Clara Catherine Carpenter	Noble Energy, Inc. Noble Energy, Inc.	not less than 1/8	08 465-262
	David Dean	Noble Energy, Inc.	not less than 1/8 not less than 1/8	D8 449-529 D8 448-749
	WV Minerals, Inc.	Noble Energy, Inc.	not less than 1/8	DB 460-590
	Thomas Kilcoyne	JB Exploration I, LLC	not less than 1/8	DB 404-107
	Patricia Catarello JB Exploration L LLC	IB Exploration L LLC	not less than 1/8	DB 410-174
	10 Experience & CCC	Robie Energy, Inc.	N/A	DB 461-628
4: No Lease Number	Roy D. Hadley	Керсо	not less than 1/8	DB 232-30
	Jay Bee Production	Керсо	not less than 1/8	DB 232-30
	Donald Seckman Thomas W. Furbee	Керсо Керсо	not less than 1/8	OB 232-30
	Betty Weese & Roger Weese	Kepco	not less than 1/8 not less than 1/8	08 232-30 08 232-30
	Linda Weese	Керсо	not less than 1/8	DB 232-30
	Керсо	Peake Energy, Inc.	N/A	DB 319-291
	Peake Energy, Inc. Four Leaf Land Company	Four Leaf Land Company	N/A	DB 403-556
	Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation  Noble Energy, Inc.	n/a n/a	D8 403-566 D8 422-517
	Ralph T. Sweenay	Four Leaf Land Company	not less than 1/8	DB 370-599
	Anna Sweeney	Four Leaf Land Company	not less than 1/8	08 370-635
	Lamoyne Sweeney Gloria A. Morris	Four Leaf Land Company	not less than 1/8	D8 370-617
	Donald L. Sweeney	Four Leaf Land Company Four Leaf Land Company	not less than 1/8 not less than 1/8	D8 397-669 D8 370-605
	Devon R. Horsley	Four Leaf Land Company	not less than 1/8	DB 370-629
	Rodger A. Sweeney	Four Leaf Land Company	not less than 1/B	DB 370-611
	Four Leaf Land Company Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation	not less than 1/8	08 403-561
	Mary S. Furbee Zebley	Noble Energy, Inc. Noble Energy, Inc.	N/A not less than 1/8	D8 422-517 D8 440-447
	Thomas Val Furbee	Noble Energy, Inc.	not less than 1/8	DB 440-443
	Alison Furbee Hardin	Noble Energy, Inc.	not less than 1/8	06 440-453
	Rani J. Boyt Mary Chidester	Noble Energy, Inc. Noble Energy, Inc.	not less than 1/8	D6 445-835
	Thomas Daniel Spencer	Noble Energy, Inc.	not less than 1/8 not less than 1/8	D6 449-523 D6 449-553
	Norma R. Spencer, Trustee	Noble Energy, Inc.	not less than 1/8	D8 465-262
	Clara Catherine Carpenter	Noble Energy, Inc.	not less than 1/8	D8 449-529
	David Dean WV Minerals, Inc.	Noble Energy, Inc. Noble Energy, Inc.	not less than 1/8	DB 448-749
	Thomas Kilcoyne	IB Exploration I, LLC	not less than 1/8 not less than 1/8	08 460-590 08 404-107
	Patricia Catarello	IB Exploration I, LLC	not less than 1/8	08 410-174
	JB Exploration I, LLC	Noble Energy, Inc.	N/A	DB 461-628
5: Q080517002	Kevin Board	Brilling Appalachian Corporation	not less than 1/8	DB 330-426
Q080517002	David Soard	Orilling Appalachian Corporation	not less than 1/8	DB 330-426 DB 330-426
Q080517002	Terry Board	Driffing Appalachian Corporation	not less than 1/8	DB 330-426
Q080517011 Q080517013	Jennifer Sexson Howard Stubbs and Nelda Stubbs	Orilling Appalachian Corporation	not less than 1/8	DB 330-657
Q080517009	Noward Stubbs and Neida Stubbs Joe Seckman	Drilling Appalachian Corporation Drilling Appalachian Corporation	not less than 1/8 not less than 1/8	D8 330-241 D8 330-507
Q080517008	Lori Lynn Briggs	Drilling Appalachian Corporation	not less than 1/8	DB 330-507 DB 330-579
Q080517010	Walter Seckman	Drilling Appalachian Corporation	not less than 1/8	08 330-430
Q080517001 Q080517016	Camilla Ash Antonia Underwood	Orilling Appalachian Corporation	not less than 1/8	D8 330-575
Q080517003	Antonia Underwood Michael E. Fisher	Drilling Appalachian Corporation  Orilling Appalachian Corporation	not less than 1/8	08 330-550
Q080517007	Pamela Ann Higginbotham	Orilling Appalachian Corporation	not less than 1/8 not less than 1/8	08 330-503 08 330-237
Q080517017	Donna S. Wolther	Drilling Appalachian Corporation	not less than 1/8	DB 330-742
Q080517004 Q080517006	Glenda Gregory Eva Jean Hoover	Ordling Appalachian Corporation	not less than 1/8	DB 330-549
Q080517005	Creal Hoover	Oriling Appalachian Corporation  Drilling Appalachian Corporation	not less than 1/8	D8 330-542
Q080517015	Robert Travis	Drilling Appalachian Corporation	not less than 1/8 not less than 1/8	08 330-491 08 330-487
Q080517014	Joseph Travis	Drilling Appalachian Corporation	not less than 1/8	08 330-511
Q080517012	Josephine Spencer	Drilling Appalachian Corporation	not less than 1/8	08 330-233
No Lease Number No Lease Number	Drilling Appalachian Corporation Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Noble Energy, Inc.	N/A N/A	08 391-416 08 422-517
	×	<del></del>	****	

No Lease Number	Jacqueline Bonnell	Drilling Appalachian Corporation	not less than 1/8	DB 409-253
No Lease Number	Kimberly Dawn Jackson	Drilling Appalachian Corporation	not less than 1/8	DB 395-795
No Lease Number	Scott Seckman	Drilling Appalachian Corporation	not less than 1/8	D8 395-797
No Lease Number	Orilling Appalachian Corporation	Noble Energy, Inc.	N/A	DB 452-641
No Lease Number	tris Rheinhardt	Noble Energy, Inc.	not less than 1/8	DB 485-642
No Lease Number	Gary A. Rheinhardt, Jr.	Noble Energy, Inc.	not less than 1/8	DB 449-527
Q080517018	Charles D. Rheinhardt	Noble Energy, Inc.	not less than 1/8	DB 459-531
Q080517022	David Rheinhardt	Noble Energy, Inc.	not less than 1/8	DB 453-633
Q080517021	Randall Rheinhardt	Noble Energy, Inc.	not less than 1/8	DB 453-535
No Lease Number	Tami Rheinhardt	Noble Energy, Inc.	not less than 1/8	DB 465-270
Q080517020	Keith Rheinhardt	Noble Energy, Inc.	not less than 1/8	DB 449-525
6: 26101	William Blaine Underwood & Laura Underwood	EQT Production Company	not less than 1/8	D8 186-86
	Donald Underwood	EQT Production Company	not less than 1/8	DB 186-86
	Hugh Underwood & Pearline Underwood	EQT Production Company	not less than 1/8	DB 185-86
	D.L. Haught & Susan Haught	EQT Production Company	not less than 1/8	DB 186-86
	EQT Production Company	Noble Energy, Inc.	N/A	DB 449-480
7: Q088053001	Susan Spencer & James Spencer	Noble Energy, Inc.	not less than 1/8	DB 462-527
Q088053004	Leola Frances Ray & Kenna Ray	Noble Energy, Inc.	not less than 1/8	DB 465-529
Q088053007	Charles Gary Carder	Noble Energy, Inc.	not less than 1/8	DB 471-690
Q088053003	Lloyd Underwood & Betty Underwood	Noble Energy, Inc.	not less than 1/8	DB 465-532
Q088053002	Mona Lee Williams	Noble Energy, Inc.	not less than 1/8	DB 465-523
Q068053005	Raymond Underwood & Doris Underwood	Noble Energy, Inc.	not less than 1/8	DB 465-535
Q088053005	Robert Monroe & Sandra Monroe	Noble Energy, Inc.	not less than 1/8	D8 465-526
Q088053008	Wayne Allen Carder	Noble Energy, Inc.	not less than 1/8	DB 471-694
3: Q088841003	Susan Spencer & James Spencer	Noble Energy, Inc.	not less than 1/8	DB 465-266
Q088841005	Leola Frances Ray & Kenna Ray	Noble Energy, Inc.	not less than 1/8	DB 465-529
	Charles Gary Corder	Noble Energy, Inc.	not less than 1/8	DB 471-690
Q088841002	Lloyd Underwood & Betty Underwood	Noble Energy, Inc.	not less than 1/8	DB 455-532
Q088841006	Mona Lee Williams	Noble Energy, Inc.	not less than 1/8	DB 465-523
Q088841001	Raymond Underwood & Doris Underwood	Noble Energy, Inc.	not less than 1/8	D8 465-535
Q088841004	Robert Monroe & Sandra Monroe	Noble Energy, Inc.	not less than 1/8	D8 465-526
	Wayne Allen Carder	Noble Energy, Inc.	not less than 1/B	DB 471-694

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APR 07 2015

WV Department of Environmental Protection

171 Cill I	EMORANDUM OF LEASE, dated	this 51" day of March	, 2014, i
Nome B. Spanes	the existence of a PAID-UP OIL AND	GAS LEASE (hereinafter, "Lease") of even date herewith, b	and between
		Spencer Living Trust, dated 9/30/2003, whose mailing ac essor whether one or more), and NOBLE ENERGY, INC	
corporation, who	e address is at 333 Technology Drive	Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "	a Delawan
	· ····································	, same 110, canonsomig, remsylvania 13317, (neremaner,	Lessee").
Lessor o	lid LEASE, LET, GRANT, and DE	MISE exclusively unto Lessee, its successors and/or assign	
extrone acacion	Dioduce, and market on snover ose st	:	
with any coan sea	un, from the premises described bei	low, subject to the provisions contained in the Lease inch	rding but no
limited to the follo	owing:	Production of the course their	
I. PRIMAR	Y TERM: The primary term of the Le	ase is for a period of five (5) years commencing on the dat	e immediately
ser total applie, St	iu for so long uncreatier as oil, pag, o	of Oliter Substances covered by the Lease are comple affici-	
paying quantings	ITUIN INC LEASED Premises or from Is	inds noticed therewith or the Lease is athenuise mainering.	
puisuant to ute p	iovisions contabled in the Lease, ind	citifing an extension of term contained therein. I come m	
farmen's tette of th	ic lease for an additional live (3) ve	ears after the end of the primary term, thereby continuing the	ne term of the
Lease to the end o	f the "extended" primary term.		
3 0			
2. DESCRIP	HON / LEASED PREMISES: All those of	certain tracts of land situate in the District of McElroy, Con	inty of Tyler.
SINCE OF MEST	Virginia, generally bounded now or fo	ormerly as follows:	
On the North by:	Everett Roy and Betty J. Weese		
On the East by:	Roger R. Weese		*****
On the South by:	Becky Jo Board (Life Estate)		
On the West by:	Larry Henthorn, Rosemary Smith H	aught	
	carry remaining resembly Singi Fi	angu	
and being the same	land acquired by Lessor by virtue of	finstrument recorded in the Office of Clerk of the County C	
TTITI LICUX 34, FAX	v 944. Suu ienu deing identitied for f	BX DUTBOSES AS D/o (15-15-37 on this data, and eximulated as as	ommission in
purpose of calculat	ting payments, Fifteen (15.00) acres,	more or less ("Leased Premises")	mizin, for the
This Me	morandum of Lease has been execut	ed for the purpose of providing notice of the existence of t	ha I assa sud
shall not be consid	cred in any way a modification or alto	ration of the Lease.	ne Lease and
<u>WITNESS:</u>	_	LESSOR:	
	$\Omega$ $\mathcal{L}_{\Delta}$	ALLAN P. SPENCER LIVING TRUST DATED 9/30	/2003
X00 MON	12 Chromer	,	
Signature	1 1000		`
Lahmer	•	Tooks & Married the	` 🚣
<u> </u>		Signature Signature	<u>warer</u>
	Chapman		
Printed Name		Printed Name: Noma R. Spencer, Trustee	
_		23/1/03 11 1	
		Job Krapperton Con	٥.
		Address Quellan Okio	
		11.42.36	
		478 62	
		1 500mm	
		<u>LESSEE:</u>	
<u>WITNESS:</u>			
		NOBLE ENERGY, INC.	
Signature		Signature	
-		By: MARK A. ACREE	
		Its: Attorney-In-Fact	
Drinted Name		Attorney-III-Pact	
Printed Name			

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Office of Oil & Gas

#### INDIVIDUAL ACKNOWLEDGMENT

STATE / COMMONWEALTH OF _	Ohio §
COUNTY OF Summit	
The foregoing instrument was ack R. Spencer, acting as Trustee for the Alla	nowledged before me, this day of, 2014. by Noma n P. Spencer Living Trust, dated 9/2072003.
MY COMMISSION EXPIRES:	Scences & Carpincer
	Signature JAMES B. CHAPMAN, Attories At Lea by Commission Has No Expiration Detail
	Printed Name
	Notary Public
	CORPORATE ACKNOWLEDGMENT
COMMONWEALTH OF PENNSYLVANI. COUNTY OF WASHINGTON	4 <b>5</b> 5
WANT OF ACREE OF AUDITORY IN THE	. 20
In witness thereof, I hereunto set m	y hand and affixed my seal.
MY COMMISSION EXPIRES:	
	Signature
	Printed Name
	Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO-Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

Received Office of Oil & Gas

This MEMORANDUM OF LEASE, dated this \_\_\_\_\_\_ day of <u>September</u>, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "<u>Lease</u>") of even date herewith, by and between <u>Llovd W. Underwood and Betty Jean Underwood, his wife</u>, whose mailing address is: <u>1316 10<sup>th</sup> Street, Vienna, WV 26105</u> (hereinafter, "<u>Lessor</u>" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "<u>Lessee</u>").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy. County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by:
On the East by:
On the South by:
On the West by:
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in <a href="Deed">Deed</a> Book <a href="66">66</a>. Page <a href="645">645</a>, said land being identified for tax purposes as <a href="05-18-11">05-18-11</a> on this date, and stipulated to contain, for the purpose of calculating payments, <a href="One Hunded Thirty-One and 00/100">One Hunded Thirty-One and 00/100</a> (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

Signatura Ruds	Signature Printed Name: Lloyd W. Underwood Address: 13 16 10 5 5
Printed Name WITNESS:	Vienna, WV 26105
Signature Bury	Betty Jean Underwood  Signature Printed Name: Betty Jean Underwood
Printed Name	Address: 1314 10 P St. Vienna, WV 2665
WITNESS:	LESSEE: NOBLE ENERGY, INC.
Signature	
Printed Name	Signature By: MARK A. ACREE Its: Attorney-In-Fact

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#### INDIVIDUAL ACKNOWLEDGMENT

STATE / COMMONWEALTH OF _	West Virzown &
COUNTY OF Wood	§ d
The foregoing instrument was ackr W. Underwood and Betty Jean Underwoo	nowledged before me, this 22 day of September, 2014, by Lloyded, his wife.
MY COMMISSION EXPIRES:	Chip?
Notary Public, State Of West Virginia JASON BETTS P O Box 6598 Wheeling, WV 26003 My Commission Explice 1 24 14, 2023	Printed Name Notary Public
***************************************	CORPORATE ACKNOWLEDGMENT
COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON	A §
MARK A. ACREE, as Attorney-in-Fact for No	OBLE ENERGY, INC., a Delaware corporation, personally known to me to be the hin instrument and acknowledged to me that he executed the same for the purposes pration.
In witness thereof, I hereunto set m	y hand and affixed my seal.
MY COMMISSION EXPIRES:	
	Signature
	Printed Name Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, Inc. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

Received
Office of Oil & Gas

This MEMORANDUM OF LEASE, dated this 22 day of October, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Wayne Allan Carder, a married man dealing with his sole and separate property, whose mailing address is: 204 57th Street, Vienna, WV 26105-2020 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonisburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal scam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- Description / Leased Premises: All those certain tracts of land situate in the District of McElroy, County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by:

On the East by:
On the South by:
On the West by:
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 101, Page 297 and recorded in Wood County, WV, said land being identified for tax purposes as 05-18-11 on this date, and stipulated to contain, for the purpose of calculating payments, One Hundred Thirty-One and 00/100 (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR <sub>5</sub>
Signature N	Signature Allan Carder
July Bett	Printed Name: Wayne Allan Carder Address: 204 57 = St
Printed Name	Vienna, WV 26105
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

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Office of Oil & Gas

### INDIVIDUAL ACKNOWLEDGMENT STATE / COMMONWEALTH OF COUNTY OF Morch The foregoing instrument was acknowledged before me, this 22 Allan Carder, a married man dealing with his sole and separate property. MY COMMISSION EXPIRES: OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS P O Box 6598 Signature Printed Name Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this \_\_\_\_day of \_\_\_\_\_, 20\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attomey-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal. MY COMMISSION EXPIRES:

Signature Printed Name Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department
Noste Energy, Inc.
333 Technology Drive, Suite 116
Cancarsburg, PA 15317

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Office of Oil & Gas

MEMORANDUM OF LEASE - NOBLE PAID UP - WV - 2013.07.01

PAGE 2

This MEMORANDUM OF LEASE, dated this day of September, 2014, is utilized to indicate the existence of a Paid-UP Oil and Gas Lease (hereinafter, "Lease") of even date herewith, by and between Susan L. Spencer and James Spencer, her husband, whose mailing address is: HC 74 Box 98, Alma, WV 26320-9710 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy, County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by:

On the East by:
On the South by:
On the West by:
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in <a href="Deed">Deed</a> Book 388, Page 164, said land being identified for tax purposes as 05-18-11 on this date, and stipulated to contain, for the purpose of calculating payments, One Hunded Thirty-One and 00/100 (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
Signature Buts Printed Name	Signature Printed Name: Susan L. Spencer Address: #C 74 Box 98  Alma W 76370
WITNESS: Signature	LESSOR: James Spencer Signature
Printed Name	Printed Name: James Spencer Address: HC 14 Box 98  Africa WU 26320
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received Office of Oil & Gas

# 

On this \_\_\_\_day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation.

In witness thereof, I hereunto set my hand and affixed my seal.

MY COMMISSION EXPIRES:

COMMONWEALTH OF PENNSYLVANIA

Signature

Printed Name Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317 Received Office of Oil & Gas

This MEMORANDUM OF LEASE, dated this \_\_\_\_\_\_ day of \_\_\_\_\_ 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Robert Errol Monroe and Sandra Monroe, his wife, whose mailing address is: 78 Canaan Drive, Scott Depot, WV 25560-7686 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy, County of Tyler,
   State of West Virginia, generally bounded now or formerly as follows:

On the North by: Everette Roy Weese and Betty June Weese On the East by: James Edward Cumberledge and Linda L. Davoli On the South by: Rayburn & Sheila Lawrence and Billy J & Jacky Jo On the West by: Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 49, Page 276, said land being identified for tax purposes as 05-18-11 on this date, and stipulated to contain, for the purpose of calculating payments, One Hunded Thirty-One and 00/100 (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

Signature  Signature  Printed Name	Signature Printed Name: Robert Errol Monroe Address: 78 Consan Dove Scott Degrit, WV 25520-7686
WITNESS:  X Pobut Eurl Mount Signature  Printed Name	LESSOR:  LESSOR:  Signature  Printed Name: Sandra Monroe  Address: 78 Concan Drive  Scott Cart Wy 25560-768
WITNESS:	LESSEE:
Signature	NOBLE ENERGY, INC.
	Signature
	By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received Office of Oil & Gas

# INDIVIDUAL ACKNOWLEDGMENT STATE / COMMONWEALTH OF COUNTY OF The foregoing instrument was acknowledged before me, this 2 Errol Monroe and Sandra Monroe, his wife. MY Commission Expires OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS P 0 Box 6598 Wheating, WV 28063 My Commission Expires May 14, 2023 Signature Printed Name Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this \_\_\_\_\_day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal. MY COMMISSION EXPIRES: Signature

Printed Name Notary Public

PREPARED BY / LPON RECORDATION, RETURN TO: Land Department NOBLE EMERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317 Received Office of Oil & Gas

This MEMORANDUM OF LEASE, dated this day of September, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Raymond V. Underwood and Doris Underwood, his wife, whose mailing address is: 12965 Emerson Avenue, Parkersburg, WV 26104 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy. County of Tyler.
   State of West Virginia, generally bounded now or formerly as follows:

On the North by: Everette Roy Weese and Betty June Weese
On the East by: James Edward Cumberledge and Linda L. Davoli
On the South by: Rayburn & Sheila Lawrence and Billy J & Jacky Jo
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Fiduciary Record Book 66. Page 316 and recorded in Wood County, WY, said land being identified for tax purposes as 65-18-11 on this date, and stipulated to contain, for the purpose of calculating payments, One Hunded Thirty-One and 00/100 (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

Signature  Printed Name	LESSOR:    Laymond N Underwood     Signature     Printed Name: Raymond V. Underwood     Address: 12 9 6 5     Parks by g WV 26104
WITNESS: Signature Printed Name	LESSOR:  Waris Underwood  Signature  Printed Name: Doris Underwood  Address: 12965 Emisson Me.
WITNESS:	LESSEE:  NOBLE ENERGY, INC.
Signature	
Printed Name	Signature By: MARK A. ACREE Its: Attorney-In-Fact

Received
Office of Oil & Gas

#### INDIVIDUAL ACKNOWLEDGMENT STATE / COMMONWEALTH OF Wood COUNTY OF The foregoing instrument was acknowledged before me, this Raymond V. Underwood and Doris Underwood, his wife. MY COMMISSION EXPIRES: OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS P O Box 6598 Printed Name Wheeling, WV 26003 nmission Expires May 14, 2023 Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the On this person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal.

Signature

Printed Name Notary Public

Received Office of Oil & Gas

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

MY COMMISSION EXPIRES:

MEMORANDUM OF LEASE - NOBLE PAID UP - WV -- 2013 07:01

This MEMORANDUM OF LEASE, dated this day of day of 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Mona Lee Williams, a widow, whose mailing address is: 822 Chestnut Street, Charleston, WV 25309-2034 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessoe").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- Description / Leased Premises: All those certain tracts of land situate in the District of McElroy, County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by:
On the East by:
On the South by:
On the West by:
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 49, Page 276, said land being identified for tax purposes as 05-18-11 on this date, and stipulated to contain, for the purpose of calculating payments, One Hunded Thirty-One and 00/100 (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
Signature	Signature Printed Name: Mona Lee Williams
Jason Bras	Address :
Printed Name	
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
Deleted Name	Signature By: MARK A. ACREE Its: Attorney-In-Fact

Received
Office of Oil & Gas

#### INDIVIDUAL ACKNOWLEDGMENT STATE / COMMONWEALTH OF WEST COUNTY OF day of Ochby, 2014, by Mona The foregoing instrument was acknowledged before me, this Lee Williams, a widow. MY COMMISSION EXPIRES: OFFICIAL SEAL Notary Public, State Of West Virginio Signature JASON BETTS PO Box 6598 Wheeling, WV 28003 mmission Expires May 14, 2023 Printed Name Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this \_\_\_\_\_day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal. MY COMMISSION EXPIRES:

Signature
Printed Name
Notary Public

Received Office of Oil & Gas

PREPARED BY/UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, Inc. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

This MEMORANDUM OF LEASE, dated this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_ 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Leola Frances Ray a/k/a Leola Ray and Kenna Ray, her husband, whose mailing address is: 824 Chestnut Street, Charleston, WV 25309-2034 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElrov, County of Tyler,
   State of West Virginia, generally bounded now or formerly as follows:

On the North by:

On the East by:

On the South by:

On the West by:

On the West by:

Discrete Roy Weese and Betty June Weese

James Edward Cumberledge and Linda L. Davoli

Rayburn & Sheila Lawrence and Billy J & Jacky Jo

Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 42, Page 276, said land being identified for tax purposes as 05-18-11 on this date, and stipulated to contain, for the purpose of calculating payments, One Hunded Thirty-One and 00/100 (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

Signature  Jasan Rutts  Printed Name	Signature Printed Name: Leola Frances Ray a/k/a Leola Ray Address:
WITNESS:  Leola Ray  Printed Name	LESSOR:  X
WITNESS:	LESSEE: NOBLE ENERGY, INC.
Signature Printed Name	Signature By: MARK A. ACREE Its: Attorney-In-Fact

Received
Office of Oil & Gas

# INDIVIDUAL ACKNOWLEDGMENT

STATE / COMMONWEALTH OF _ Nes	Wichair 8
COUNTY OF Kanguina	· · · · · · · · · · · · · · · · · · ·
The foregoing instrument was acknowledged Frances Ray a/k/a Leola Ray and Kenna Ray, her h	i before me, this 2 day of Och by 2014, by Leola usband.
My COMMISSION EXPIRES:	- Q = B=
100000000000000000000000000000000000000	Signature /
Notary Public, State Of West Virginia	Jasa Retts
JASON BETTS PO Box 6598	Printed Name
Wheeling Wy senna	Notary Public
My Commission Expires May 14, 2023	
CORPOR	ATE ACKNOWLEDGMENT
COMMONWEALTH OF PENNSYLVANIA §	
COUNTY OF WASHINGTON 6	
On this day of	, 20, before me, the undersigned officer, personally appeared
MARK A. ACREE, as Attorney-in-Fact for NOBLE EN	VERGY, INC., a Delaware cornoration, personally known to me to be the
person whose name is subscribed to the within instrur therein contained and on behalf of said corporation.	nent and acknowledged to me that he executed the same for the purposes
dieteni contained and on behalf of said corporation.	
In witness thereof, I hereunto set my hand an	d affixed my seal.
MY COMMISSION EXPIRES:	
	Signature
	Printed Name
	Notary Public
	rodary 1 dolle

# Received Office of Oil & Gas

PREFARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

This MEMORANDUM OF LEASE, dated this <u>No.</u> day of <u>October</u>, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "<u>Lease</u>") of even date herewith, by and between <u>Charles Gary Carder</u>, a single man, whose mailing address is: <u>944 Hickman Road</u>, <u>Waterford</u>, <u>OH 45786-6195</u> (hereinafter, "<u>Lessor</u>" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "<u>Lessee</u>").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElrov. County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by: Everette Roy Weese and Betty June Weese
On the East by: Susan L. Spencer
On the South by: Rayburn & Sheila Lawrence and Billy J & Jacky Jo
On the West by: Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 101, Page 297 and recorded in Wood County, WV, said land being identified for tax purposes as 05-18-11 on this date, and stipulated to contain, for the purpose of calculating payments, One Hundred Thirty-One and 00/100 (131.00) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
Jan 15	Chale Gary Landen
Signature	Signature Printed Name : Charles Gary Carder
Jasa Bett	Address: 944 Hickman Rd
Printed Name	Water 6-d, ot 45786-6195
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature
	By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received
Office of Oil & Gas

#### INDIVIDUAL ACKNOWLEDGMENT

STATE/COMMONWEALTH OF OH	30 8
COUNTY OF PALMER	8
	ed before me, this 20 day of October, 2014, by Charles
My Commission Expires: Sworn to and subscribed before me this	Signature R. T.
20 day of 00x 2014	Printed Name
	Notary Public
JASON BETTS HOTARY PUBLIC, STATE OF CHIO IN Commission Expires STATE PO	RATE ACKNOWLEDGMENT
COMMONWEALTH OF PENNSYLVANIA § COUNTY OF WASHINGTON §	
A ACREE, as AMOUNCY-III-PACT OF MURIE, P.	NERGY, INC., a Delaware corporation, personally known to me to be the ment and acknowledged to me that he executed the same for the purposes
In witness thereof, I hereunto set my hand as	nd affixed my seal.
MY COMMISSION EXPIRES:	
	Signature
	Printed Name
	Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO:

Ind Department
Ind Specific Street, Inc.
333 Technology Drive, Suite 116
Canonsburg, PA 15317

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy, County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by:
On the East by:
On the South by:
On the West by:

Susan L. Spencer

Rayburn & Sheila Lawrence and Billy J & Jacky Jo
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 101, Page 297 and recorded in Wood County, WY, said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, Two and Ninety-Two Hundredths (2.92) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
0 n=	Wayne Allan Carder
Signature	Signature 0
Juan Butts	Printed Name: Wayne Allan Carder Address: 204 57 Street
Printed Name	Vienna, WV 26105
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A. ACREE
Drintad Mana	Its: Attorney-In-Fact

Received
Office of Oil & Gas

INDIVIDUAL ACKNOWLEDGMENT STATE / COMMONWEALTH OF \_ NON COUNTY OF The foregoing instrument was acknowledged before me, this \_ 22 day of Ochow, 2014, by Wayne Allan Carder, a married man dealing with his sole and separate property. My COMMISSION EXPIRES: OFFICIAL SEAL
Notary Public, State Of West Virginia
JASON BETTS
P O Box 6593
Wheeling, WV 25003
My Commission Expires May 14, 2023 Signature Printed Name Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this day of , 20 , before me, the undersigned officer, personally appeared MARK A. ACREE, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on both of contained and on the both of contained and therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal. MY COMMISSION EXPIRES:

> Signature Printed Name Notary Public

Received

Recoived

Office of Oil & Gas

JAN 28 2015

MEMORANDUM OF LEASE - NOBLE PAID UP - WV - 2013.07.01

This MEMORANDUM OF LEASE, dated this day of July, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Susan L. Spencer and James Spencer, her busband, whose mailing address is: HC 74 Box 98, Alma, WV 26320-9710 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy. County of Tvler, State of West Virginia, generally bounded now or formerly as follows:

On the North by: Everette Roy Weese and Betty June Weese
On the East by: Susan L. Spencer
On the South by: Rayburn & Sheila Lawrence and Billy J & Jacky Jo
On the West by: Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in <a href="Deed">Deed</a> Book 388, Page 164, said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, <a href="Two and Ninety-Two Hundredths">Two Hundredths</a> (2.92) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
	Signature Spenier
Signature	Printed Name: Susan L. Spencer Address: HC 74 Ba-94
_ Jasin Berts	
Printed Name	alma WV 26320
WITNESS:	LESSOR:
013	James D. Sommer
Signature	Signature
Jason Both	Printed Name: James Spencer Address: No. 14 Bob 98
Printed Name	Alma WU 26320
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received Office of Oil & Gas

INDIVIE	DUAL ACKNOWLEDGMENT		
STATE / COMMONWEALTH OF	V		
COUNTY OF JULE	§		
The foregoing instrument was acknowledge  Spencer and James Spencer, her husband.	d before me, this 18 day of July , 2014, by Susan L.		
MY COMMISSION EXPIRES:			
OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS	Signature Jass- Betts		
P O Box 6598 Wheeling, WV 26003 My Commission Expires May 14, 2023	Printed Name Notary Public		
CORPO	CORPORATE ACKNOWLEDGMENT		
COMMONWEALTH OF PENNSYLVANIA § COUNTY OF WASHINGTON §			
On thisday of	NERGY, INC., a Delaware corporation, personally known to me to be the ment and acknowledged to me that he executed the same for the purposes		
In witness thereof, I hereunto set my hand as	nd affixed my seal.		
MY COMMISSION EXPIRES:			
	Signature		
	Printed Name Notary Public		

Received Office of Oil & Gas

JAN 28 2015

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

This MEMORANDUM OF LEASE, dated this \( \frac{1}{D} \) day of \( \frac{August}{August} \). 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "\textit{Lease"}) of even date herewith, by and between \( \frac{Robert Errol Monroe and Sandra Monroe, his wife, \text{ whose mailing address is: 78 Canaan Drive, Scott Depot, WV \( 25560-7686 \) (hereinafter, "\text{Lessor"} \) whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "\text{Lessee"}).

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy, County of Tyler,
   State of West Virginia, generally bounded now or formerly as follows:

On the North by:	Everette Roy Weese and Betty June Weese	90
On the East by:	Susan L. Spencer	7
On the South by:	Rayburn & Sheila Lawrence and Billy J & Jacky Jo	
On the West by:	Underwood Blaine Est and Wells Vivian Janice	

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 742. Page 134 and recorded in Kanawha County, WY, said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, Two and Ninety-Two Hundredths (2.92) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

Signature  Printed Name	Signature Printed Name: Robert Errol Monroe Address: 78 Cansan Dans, Soft Depat, W
Signature  Signature  Printed Name	Signature Printed Name: Sandra Monroe Address: 78 Canada Dave, Scott Depot, W
WITNESS:	LESSEE: NOBLE ENERGY, INC.
Signature	Signature By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received Office of Oil & Gas

## INDIVIDUAL ACKNOWLEDGMENT Waringiz STATE / COMMONWEALTH OF COUNTY OF The foregoing instrument was acknowledged before me, this Errol Monroe and Sandra Monre, his wife. Notary Public, State Of West Virginia JASON BETTS P O Box 55:99 Wheeling, WV 26003 My Commission Expires May 14, 2023 Signature Printed Name Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this \_\_\_\_\_day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal. MY COMMISSION EXPIRES: Signature Printed Name

Notary Public

Received Office of Oil & Gas

JAN 28 2015

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

This MEMORANDUM OF LEASE, dated this day of August, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Raymond V, Underwood and Doris Underwood, his wife, whose mailing address is: 12965 Emerson Avenue, Parkersburg, WV 26104 (hereinafter, "Leasor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- 1. PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the Lease to the end of the "extended" primary term.
- Description / Leased Premises: All those certain tracts of land situate in the District of McElroy, County of Tyler.
   State of West Virginia, generally bounded now or formerly as follows:

On the North by: Everette Roy Weese and Betty June Weese
On the East by: Susan L. Spencer
On the South by: Rayburn & Sheila Lawrence and Billy J & Jacky Jo
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in FR Book 66, Page 316 and recorded in Wood County, WV, said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, Two and Ninety-Two Hundredths (2.92) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
an-	Ramonel W Mondenwood
Signature	Signature
Jasa Brots	Printed Name: Raymond V. Underwood Address: 12 945 Emble Me
Printed Name	Parkeybung, WV ZULOM
WITNESS:	LESSOR:
Ch 135	Daris Underwood
Signature	Signature
Jason Berot	Printed Name: Doris Underwood Address: 129165 England Are
Printed Name	Perkerby WV26104
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature
Printed Name	By: MARK A. ACREE Its: Attorney-In-Fact
THIRD TABLE	(F)

Received
Office of Oil & Gas

#### INDIVIDUAL ACKNOWLEDGMENT STATE/COMMONWEALTH OF WOST VICES LIL COUNTY OF \$ 5 The foregoing instrument was acknowledged before me, this 2014. Raymond V. Underwood and Doris Underwood, his wife. My COMMISSION EXPIRES: OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS P O Box 5598 Wheeling, WV 25003 My Commission Expires May 14, 2023 Signature Printed Name Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this \_\_\_\_\_\_day of \_\_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREB, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal. MY COMMISSION EXPIRES: Signature

Printed Name Notary Public

Received
Office of Oil & Gas

JAN 28 2015

PREPARED BY / UPON RECORDATION, RETURN TO-Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy, County of Tyler.
   State of West Virginia, generally bounded now or formerly as follows:

On the North by:	Everette Roy Weese and Betty June Weese	
On the East by:	Susan L. Spencer	
On the South by:	Rayburn & Sheila Lawrence and Billy J & Jacky Jo	
On the West by:	Underwood Blaine Est and Wells Vivian Janice	

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 742, Page 134 and recorded in Kanawha County, WV, said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, Two and Ninetv-Two Hundredths (2.92) acres, more or less ("Leused Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
Signature	Mona Lea Wicolama
Jason Butt	Printed Name: Mona Lee Williams Address: 322 Chestant St, Charleston, WV
Printed Name	
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received Office of Oil & Gas

## INDIVIDUAL ACKNOWLEDGMENT

STATE/COMMONWEALTH OF West	Viginia 8
COUNTY OF Putnem	§
The foregoing instrument was acknowledged Lee Williams, a widow.	before me, this 28 day of Argust, 2014, by Mona
My Commission Expires:	1 Pm
OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS POR Ex 5598 POR Seps System Wasding, WY 26003 My Commission Expires May 14, 2023	Printed Name Notary Public
CORPORA	ATE ACKNOWLEDGMENT
COMMONWEALTH OF PENNSYLVANIA § COUNTY OF WASHINGTON §	
MARK A. ACREE, as Attorney-in-Fact for NOBLE EN	, 20 , before me, the undersigned officer, personally appeared ERGY, INC., a Delaware corporation, personally known to me to be the ent and acknowledged to me that he executed the same for the purposes
In witness thereof, I hereunto set my hand and	affixed my scal.
MY COMMISSION EXPIRES:	
	Signature
	Printed Name Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department Noble Energy, Inc. 333 Technology Drive, Suite 116 Canonsburg, PA 15317 Received Office of Oil & Gas

This MEMORANDUM OF LEASE, dated this \_\_\_\_\_\_day of August, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Llovd W. Underwood and Betty Jean Underwood, his wife, whose mailing address is: 1316 10th Street, Vienna, WV 26105 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessoe").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElrov. County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by: Everette Roy Weese and Betty June Weese
On the East by: Susan L. Spencer
On the South by: Rayburn & Sheila Lawrence and Billy J & Jacky Jo
On the West by: Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in <a href="Deed">Deed</a> Book 16. Page 612, said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, <a href="Two and Ninety-Two Hundredths">Two and Ninety-Two Hundredths</a> (2.92) acres, more or less ("Lessed Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR: Lloyd W. Underwood
Signature	Signature Printed Name : Lloyd W. Underwood
Jason Berts	Address: 1316-10TH STEET VIENNA, W. VA. 26105
Printed Name	VIENNA, W. VA. 26105
WITNESS:	LESSOR:
Signature	Betty Jean Knodersand
•	Signature Printed Name: Betty Jean Underwood
Jason Berts	Address: 1316 -10= S5
Printed Name	V'enna, WV 26105
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A, ACREE
Printed Name	Its: Attorney-In-Fact
Received	

Office of Oil & Gas

## INDIVIDUAL ACKNOWLEDGMENT

STATE COMMONWEALTH OF NO	St Virgina 8
COUNTY OF Wood	8
The foregoing instrument was acknowledg W. Underwood and Betty Jean Underwood, his w	ed before me, this 12 day of Angust 2014, by Lloye
MY COMMISSION EXPIRES:	0 05
OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS P O Box 6598 Wy Commission Expires May 14, 2023	Signature  Signature  Printed Name  Notary Public
CORPO COMMONWEALTH OF PENNSYLVANIA § COUNTY OF WASHINGTON §	RATE ACKNOWLEDGMENT
On this day of	NERGY, INC., a Delaware corporation, personally known to me to be the iment and acknowledged to me that he executed the same for the purposes
In witness thereof, I hereunto set my hand a	nd affixed my seal.
My COMMISSION EXPIRES:	50
	Signature
	Printed Name
	Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO Land Department
NOBLE ENERGY, INC.
333 Technology Drive, Suite 116
Canonsburg, PA 15317

Received Office of Oil & Gas JAN 2 8 2015

This MEMORANDUM OF LEASE, dated this \( \frac{\mathcal{D}}{\mathcal{D}} \) day of \( \frac{\text{August}}{\text{2014}}, \) is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between \( \frac{\text{Leola Frances Ray a/l/n Leola Ray and Kenna Ray, her husband,} \) whose mailing address is: \( \frac{824}{\text{Chestnut Street, Charleston, WV 25309-2034} \) (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessoe").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- Description / Leased Premises: All those certain tracts of land situate in the District of McElroy. County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by:	Everette Roy Weese and Betty June Weese	
On the East by:	Susan L. Spencer	
On the South by:	Rayburn & Sheila Lawrence and Billy J & Jacky Jo	
On the West by:	Underwood Blaine Est and Wells Vivian Janice	

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 742, Page 134 and recorded in Kanawha County, WY, said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, Two and Ninety-Two Hundredths (2.92) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
Signature	Signature Say
Jan R Hs	Printed Name: Leola Frances Ray a/k/a Leola Ray Address: 324 Chestnut St, Cheston, WV
Printed Name	
WITNESS:	LESSOR:
Signature	Signature Printed Name: Kenna Ray
Printed Name	Address: By y Chestnat St, Cherleston, W
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
Printed Name	Signature By: MARK A. ACREE Its: Attorney-In-Fact
Printed Name	the transfer was

Received Office of Oil & Gas

> JAN 2 8 2015 MEMORANDUM OF LEASE - NOBILE PAID UP - WV - 2013.07.01

### INDIVIDUAL ACKNOWLEDGMENT STATE / COMMONWEALTH OF WEST V RANGE COUNTY OF The foregoing instrument was acknowledged before me, this 28 day of Angu St , 2014, by Leola Frances Ray a/k/a Leola Ray and Kenna Ray, her husband. ON EXPIRES: OFFICIAL SEAL Notary Public, State Of West Virginia JASON BETTS P O Box 6598 Wheeling, WV 26003 My Commission Expires May 14, 2022 Signatufe-Printed Name Notary Public CORPORATE ACKNOWLEDGMENT COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON On this \_\_\_\_day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attorney-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation. In witness thereof, I hereunto set my hand and affixed my seal. My COMMISSION EXPIRES:

Signature

Printed Name Notary Public

Received Office of Oil & Gas

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

This MEMORANDUM OF LEASE, dated this 10 day of October, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Charles Gary Carder, a single man, whose mailing address is: 944 Hickman Road, Waterford, OH 45786-6195 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- DESCRIPTION / LEASED PREMISES: All those certain tracts of land situate in the District of McElroy, County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by: Everette Roy Weese and Betty June Weese
On the East by: Susan L. Spencer
On the South by: Rayburn & Sheila Lawrence and Billy J & Jacky Jo
Underwood Blaine Est and Wells Vivian Janice

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Will Book 101, Page 297 and recorded in Wood County, WV. said land being identified for tax purposes as 05-18-10 on this date, and stipulated to contain, for the purpose of calculating payments, Two and Ninety-Two Hundredths (2,92) acres, more or less ("Leased Premises").

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

WITNESS:	LESSOR:
Signature	Charles Bary Lander Signature
Signature	Printed Name : Charles Gary Carder
Jason Betts	Address: gyy Hackmark
Printed Name	Waterfield, pH 45786-6195
II. III. III. III. III. III. III. III.	I ECCEP.
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received Office of Oil & Gas JAN 2 8 2015

#### INDIVIDUAL ACKNOWLEDGMENT

STATE / COMMONWEALTH OF	) 8
COUNTY OF Palmer	s 8
The foregoing instrument was acknowledged Gary Carder, a single man.	before me, this 20 day of October, 2014, by Charles
MY COMMISSION EXPIRES:  JASON BETTS	Signature
NOTARY PUBLIC, STATE OF OMO My Commission Explires 5/13/2017 Sworn to and subscribed	Jah Bum
Sworn to and subscribed 5/13/2017	Printed Name
before me this	Notary Public
10 day of Out 2014	
CORPOR	ATE ACKNOWLEDGMENT
COMMONWEALTH OF PENNSYLVANIA § COUNTY OF WASHINGTON §	
On this day of	, 20, before me, the undersigned officer, personally appeared
MARK A. ACREE, as Attorney-in-Fact for NOBLE EN	IERGY, INC., a Delaware corporation, personally known to me to be the nent and acknowledged to me that he executed the same for the purposes
In witness thereof, I hereunto set my hand and	d affixed my seal.
My Commission Expires:	
	Signature
	Printed Name
	Notary Public

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317 Received Office of Oil & Gas JAN 2 8 2015

This MEMORANDUM OF LEASE, dated this 5th day of September, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between Tami Rheinhardt a/k/a Tami Dawn Rheinhardt, a single woman, whose mailing address is: 1291 East Main Street, Salem. West Virginia 26426 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessoe").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- 1. PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the primary term of the Lease for an additional five (5) years after the end of the primary term, thereby continuing the term of the Lease to the end of the "extended" primary term.
- 2. <u>DESCRIPTION / LEASED PREMISES</u>: All those certain tracts of land situate in the District of <u>McElroy</u>. County of <u>Tyler</u>. State of West Virginia, generally bounded now or formerly as follows:

and being the same land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Deed Book 449: 454. Page 741: 443, said land being identified for tax purposes as 95-18-8 on this date, and stipulated to contain, for the purpose of calculating payments, eighty-three and sixty-two hundredths (83.62) acres, more or less (\*Leased

On the North by: Everett Roy Weese and Betty June Weese

On the South by: Lawrence Rayburn, et al On the West by: Lawrence Rayburn, et al

Everett Roy Weese and Betty June Weese

On the East by:

Premises").

This Memorandum of Lease has been exec shall not be considered in any way a modification or a	cuted for the purpose of providing notice of the existence of the Lease and diteration of the Lease.
WITNESS:	LESSOR:
Signature  DAVIDE. RHEINHARDT  Printed Name	Signature Printed Name: Tami Rheinhardt a/k/a Tami Dawn Rheinhardt Address:
. I allow I valle	Salem WV 26426
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
	Signature By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact

Received Office of Oil & Gas

Printed Name

#### INDIVIDUAL ACKNOWLEDGMENT

STATE / COMMONWEALTH OF _ L	JEZL 1	VIRGINIA 8	
COUNTY OF HARRISON		§	
The foregoing instrument was acknow Rheinhardt a/k/a Tami Dawn Rheinhardt, a	vledged b single wo	efore me, this 574 day of SEPTEMBER 2014, by Tami	
MY COMMISSION EXPIRES:		willing lothing	
JULIAN MATARITATION AND THE STATE OFFICIAL SEAL		01	
Notary Public, State Of West Virgini WILLIAM J ROBINSON		WILLIAM J ROBINSON	
156 N Etk St	Ē	Printed Name	
Gassaway, WV 26624  My Commission Expires December 21, 2  Terrorrorrorrorrorrorrorrorrorrorrorrorro	1922 <u>=</u>	Notary Public	
c	DRPORAT	TE ACKNOWLEDGMENT	
		I DACINE O WELLOWIE IN	
COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON	§ §		
On thisday of, 20, before me, the undersigned officer, personally appeared MARK A. ACREE, as Attomey-in-Fact for NOBLE ENERGY, INC., a Delaware corporation, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same for the purposes therein contained and on behalf of said corporation.			
In witness thereof, I hereunto set my hand and affixed my scal.			
My Commission Expires:			
		Signature	
		Printed Name	
		Notary Public	

PREPARED BY / URON RECORDATION. RETURN TO: Land Department Notice Everoy, Inc. 333 Technology Drive, Suite 116 Canonsburg, PA 15317

Received Office of Oil & Gas

This MEMORANDUM OF LEAS	E, dated this 31 day of October 2014, is utilized to indicate the dereinafter, "Lease") of even date herewith, by and between Donald L. Seekmar
and Dora Seckman, husband and wife wh	ose mailing address is: 705 Jefferson Run Rd., Alma, WV 26320 (hereinafter
CADIDIC GEVEIOD, DIDDILICE, AND MARKET ALL MADE	and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to or gas and all constituent products, including methane gas present in or associated ibed below, subject to the provisions contained in the Lease including, but no
paying quantities from the Leased Premises or pursuant to the provisions contained in the L	of the Lease is for a period of five (5) years commencing on the date immediately it, gas, or other substances covered by the Lease are capable of being produced in from lands pooled therewith, or the Lease is otherwise maintained or prolonged ease, including an extension of term contained therein. Lessee may extend the (5) years after the end of the primary term, thereby continuing the term of the n.
2. <u>DESCRIPTION / LEASED PREMISES</u> : Al State of West Virginia, generally bounded now	il those certain tracts of land situate in the District of McElroy, County of Tyler, or formerly as follows:
On the North by: (05-15-36)	
On the East by: Lillie Seckman heirs (05-15	.34)
On the South by: (05-15-38)	751)
On the West by: Lillie Seekman heirs (05-15	. 27)
and being the same land acquired by Lessor by <u>Deed</u> Book <u>381</u> , Page <u>422</u> , said land being iden purpose of calculating payments, <u>Twenty-five</u> (	virtue of instrument recorded in the Office of Clerk of the County Commission in ntifled for tax purposes as <u>95-15-35</u> on this date, and stipulated to contain, for the <u>25.00</u> ) acres, more or less (" <u>Leased Premises</u> ").
Signature  Blake Thatthe  Printed Name	LESSOR:  Donald J. Sectorna  Signature Printed Name: Donald L. Seckman Address: 20 S Taffer SQU RUN Rd.  ALMA WV 26320
Signature  Plake Thatala  Printed Name	LESSOR:  Signature  Printed Name: Dora Seckman  Address: 705 Seckman  Colone, W. V. 26320
WITNESS:	LESSEE: NOBLE ENERGY, INC.
Signature	-
-	Signature
	By: MARK A. ACREE
Printed Name	Its: Attorney-In-Fact Received
	Office of Oil & Gas
	THE RESERVE AND THE COMPANY OF THE C

#### INDIVIDUAL ACKNOWLEDGMENT

STATE / COMMONWEALTH OF WO	§
COUNTY OF Tyler	§
The foregoing instrument was acknowledged befor  L. Seckman and Dora Seckman, husband and wife.  My COMMISSION EXPIRES:	By Www
Notory Public, State of West Virginia Blake That cher	ighature  Clake Tichcher  rinted Name  fotary Public
COMMONWEALTH OF PENNSYLVANIA § COUNTY OF WASHINGTON §	ACKNOWLEDGMENT
MARK A. ACREE, as Allomey-in-ract for NOBLE ENERG	20, before me, the undersigned officer, personally appeared V, INC., a Delaware corporation, personally known to me to be the id acknowledged to me that he executed the same for the purposes
In witness thereof, I hereunto set my hand and affixed	ed my seal.
MY COMMISSION EXPIRES:	
Si	gnature
	rinted Name

PREPARED BY J UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC 333 Technology Drive, Suite (16 Canonsburg, PA 15317 Received Office of Oil & Gas

This MEMORANDUM OF LEASE, dated this 15th day of August, 2014, is utilized to indicate the existence of a PAID-UP OIL AND GAS LEASE (hereinafter, "Lease") of even date herewith, by and between WV Minerals, Inc., a West Virginia Corporation, whose mailing address is: 57 Mountain Park Drive, Fairmont, WV 26554 (hereinafter, "Lessor" whether one or more), and NOBLE ENERGY, INC., a Delaware corporation, whose address is at 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317, (hereinafter, "Lessee").

Lessor did LEASE, LET, GRANT, and DEMISE exclusively unto Lessee, its successors and/or assigns, the rights to explore, develop, produce, and market oil and/or gas and all constituent products, including methane gas present in or associated with any coal seam, from the premises described below, subject to the provisions contained in the Lease including, but not limited to the following:

- PRIMARY TERM: The primary term of the Lease is for a period of five (5) years commencing on the date immediately
  set forth above, and for so long thereafter as oil, gas, or other substances covered by the Lease are capable of being produced in
  paying quantities from the Leased Premises or from lands pooled therewith, or the Lease is otherwise maintained or prolonged
  pursuant to the provisions contained in the Lease, including an extension of term contained therein. Lessee may extend the
  primary term of the Lease for an additional three (3) years after the end of the primary term, thereby continuing the term of the
  Lease to the end of the "extended" primary term.
- Description / Leased Premises: All those certain tracts of land situate in the District of McElroy, County of Tyler, State of West Virginia, generally bounded now or formerly as follows:

On the North by:	Rosemary Haught, Daniel & Lisa K. Hadley, William O. & Mable O. Roberts		
On the East by: Robert J. Kocher et al, Mitchell D. Herrick			
On the South by: Roger R. Weese			
On the West by: Betty June Weese			
15-28.3, 05-15-28.	c land acquired by Lessor by virtue of instrument recorded in the Office of Clerk of the County Commission in Page 381, said land being identified for tax purposes as P/O 05-15-32, 05-15-28, 05-15-28.1, 05-15-28.2, 05- 4, on this date, and stipulated to contain, for the purpose of calculating payments, One Hundred Fifty and res, more or less ("Leased Premises").		

This Memorandum of Lease has been executed for the purpose of providing notice of the existence of the Lease and shall not be considered in any way a modification or alteration of the Lease.

Signature of Sinners Printed Name	LESSOR: WV MINERALS, INC.  Dean Harris, President
WITNESS:	LESSEE:
	NOBLE ENERGY, INC.
Signature	
Printed Name	Signature By: MARK A. ACREE Its: Attorney In-Fact

Received Office of Oil & Gas JAN 2 8 2015

#### CORPORATE ACKNOWLEDGMENT

	STATE / COMMONWEALTH OF	W25+	Virginia B
	COUNTY OF HUCKSON		<b>§</b>
	On this 15th day of 14 0 0 0 Harris, acting as President of WV Minera proven) to be the person whose name is	ls, Inc., a subscribed in containe	2014, before me, the undersigned officer, personally appeared Dea West Virginia Corporation, personally known to me (or satisfactori to the within instrument and acknowledged to me that he executed the d, at the direction of and on behalf of said entity.
	MY COMMISSION EXPIRES:		772
5	MODAY PUBLIC OFFICIAL SEAL MARK A. MIUDRICK State of West Weginia My Commission Expires November 30, 2022 28 SOUTH WEN OR SUTE 40, 85005FDRT, WY 2010	 	Signature  Mork A. Modrick  Printed Name  Notary Public
_		CORPORA	TE ACKNOWLEDGMENT
	COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON	ģ Š	
	MAKE A. ACKEE, 85 Attorney-in-ract for NO	BLE ENE in instrume	. 20 before me, the undersigned officer, personally appeare RGY, INC., a Delaware corporation, personally known to me to be that and acknowledged to me that he executed the same for the purpose
	In witness thereof, I hereunto set my	hand and a	affixed my seal.
	My Commission Expires:		
			Signature
			Printed Name
			Notary Public

Received
Office of Oil & Gas

JAN 28 2015

PREPARED BY / UPON RECORDATION, RETURN TO: Land Department NOBLE ENERGY, INC. 333 Technology Drive, Suite 116 Canonsburg, PA 15317



Office of Oil & Gas 601 57<sup>th</sup> street, SE Charleston, WV 25304-2345 December 15, 2014

Re: Drilling Under Roads

To Whom It May Concern:

Noble Energy, Inc. has the right to drill, stimulate and produce wells that are drilled under the County and State Roads as designated on the plats.

Should you have any questions or desire additional information, please do not hesitate to contact me at <a href="mailto:dswiger@nobleenergyinc.com">dswiger@nobleenergyinc.com</a> or 724-820-3061.

Sincerely,

Dee Swiger

Regulatory Analyst III

DS/

Enclosures:

Received
Office of Oil & Gas
JAN 2 8 2015

Date of Notice Certification: 1-22-15

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

API No. 47- 095

	Operator's Well No. SHR 30 DHS					
			Well Pad N	Name: SHR 30	0	
Notice has b						
Pursuant to th	e provisions in West Virginia Code §	22-6A, the Operator has prov	ided the rec	luired parties w	ith the Notice Forms listed	
pelow for the	tract of land as follows:					
State:	West Virginia	UTM NAD 83	Easting:	515923.706		
County:	095-Tyler	OTM NAD 65	Northing:	4362703.846		
District:	Mc Elroy		Public Road Access: County Rt. 58			
Quadrangle:	Shirley	Generally used fa	Generally used farm name: Seckman			
Watershed:	huc-10 Mc Elroy Creek					
t has provide information re of giving the equirements Virginia Code	the secretary, shall be verified and sled the owners of the surface describe equired by subsections (b) and (c), se surface owner notice of entry to su of subsection (b), section sixteen of ex 22-6A-11(b), the applicant shall to have been completed by the applicant	need in subdivisions (1), (2) and ction sixteen of this article; (ii) rivey pursuant to subsection (if this article were waived in the ender proof of and certify to the	nd (4), subs ) that the re- a), section to writing by	ection (b), sec quirement was ten of this arti- the surface ow	etion ten of this article, the deemed satisfied as a result cle six-a; or (iii) the notice wher; and Pursuant to West	
Pursuant to '	West Virginia Code § 22-6A, the Op	erator has attached proof to the	nis Notice C	ertification		
that the Ope	rator has properly served the required	d parties with the following:				
*PLEASE CHE	CK ALL THAT APPLY				OOG OFFICE USE ONLY	
☐ 1. NOT	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIR SEISMIC ACTIVITY WAS			RECEIVED/ NOT REQUIRED	
■ 2. NOT	FICE OF ENTRY FOR PLAT SURV	EY or NO PLAT SURVE	EY WAS CO	ONDUCTED	RECEIVED	
☐ 3. NOT	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIR NOTICE OF ENTRY FOR I WAS CONDUCTED or			RECEIVED/ NOT REQUIRED	
		WRITTEN WAIVER II (PLEASE ATTACH)		CE OWNER		
■ 4. NO	TICE OF PLANNED OPERATION				RECEIVED	
■ 5. PUE	SLIC NOTICE				RECEIVED	
■ 6. NO	FICE OF APPLICATION				RECEIVED	

#### Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

Received Office of Oil & Gas

#### Certification of Notice is hereby given:

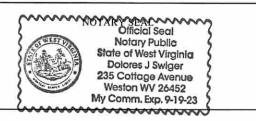
THEREFORE, I Kim Ward \_\_\_\_\_\_, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Noble Energy, Inc.

By: Canonsburg, PA 15317

Its: Regulatory Analyst Facsimile: 724-743-0050

Telephone: 724-820-3061 Email: dswiger@nobleenergyinc.com



Subscribed and sworn before me this 15 day of \_\_\_\_\_\_\_ Notary Public

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

My Commission Expires 09/19/2023

Received
Office of Oil & Gas
JAN 2 8' 2015

API NO. 47- 095 0 2 2 4 1
OPERATOR WELL NO. SHR 30 DHS
Well Pad Name: SHR 30

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 1-22/5 Date Permit Application Filed: 1-23-15 Notice of: ☐ CERTIFICATE OF APPROVAL FOR THE PERMIT FOR ANY WELL WORK CONSTRUCTION OF AN IMPOUNDMENT OR PIT Delivery method pursuant to West Virginia Code § 22-6A-10(b) PERSONAL REGISTERED ☑ METHOD OF DELIVERY THAT REQUIRES A SERVICE MAIL RECEIPT OR SIGNATURE CONFIRMATION Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule. ☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to: COAL OWNER OR LESSEE ☑ SURFACE OWNER(s) Name: Stanley E. Seckman Name: none Address: 659 Jefferson Run Road Address: Alma, WV 26320 ☐ COAL OPERATOR Name: Allen W. Seckman Name: none Address: 824 Jefferson Run Road Alma, WV 26320 Address: ☐ SURFACE OWNER(s) (Road and/or Other Disturbance) ☐ SURFACE OWNER OF WATER WELL Name: AND/OR WATER PURVEYOR(s) Address: Name: \_\_\_\_\_\_ Address: Name: Address: Received □ OPERATOR OF ANY NATURAL GAS STORAGE FIELD SURFACE OWNER(s) (Impoundments of Pits) Oil & Gas Name: none Address: Address: -04/17/2015\*Please attach additional forms if necessary

API NO. 47- 095 OPERATOR WELL NO. SHR 30 DHS
Well Pad Name: SHR 30

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 1-22-15 Date Permit Application Filed: 1-23-15 Notice of: PERMIT FOR ANY ☐ CERTIFICATE OF APPROVAL FOR THE WELL WORK CONSTRUCTION OF AN IMPOUNDMENT OR PIT Delivery method pursuant to West Virginia Code § 22-6A-10(b) REGISTERED ☑ METHOD OF DELIVERY THAT REQUIRES A PERSONAL SERVICE MAIL RECEIPT OR SIGNATURE CONFIRMATION Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule. ☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to: ☐ COAL OWNER OR LESSEE SURFACE OWNER(s) Name: none Name: Donald L. Seckman Address: 705 Jefferson Run Road Address: Alma, WV 26320 Name: Beverly J. Seckman COAL OPERATOR Name: none Address: 353 Foundry Street New Martinsville, WV 26155 Address: ☐ SURFACE OWNER(s) (Road and/or Other Disturbance) ☐ SURFACE OWNER OF WATER WELL Name: \_\_\_\_\_ Address: AND/OR WATER PURVEYOR(s) Name: Name: Address: Received □ OPERATOR OF ANY NATURAL GAS STORAGE FIELD □ SURFACE OWNER(s) (Impoundmatticants) Oil & Gas Name: none Address: +04/17/2015\*Please attach additional forms if necessary

API NO. 47- 095 OPERATOR WELL NO. SHR 30 DHS
Well Pad Name: SHR 30

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Noti	ce Time Requirement: notice shall be provided no lat	er than the filing date of permit application.	
	e of Notice: 1-22-15 Date Permit Application Filed ce of:	: 1-23-13	
V	:==:	APPROVAL FOR THE OF AN IMPOUNDMENT OR PIT	
Deli	very method pursuant to West Virginia Code § 22-6	A-10(b)	
	PERSONAL ☐ REGISTERED ☑ M	ETHOD OF DELIVERY THAT REQUIRES A	
		ECEIPT OR SIGNATURE CONFIRMATION	
regis sedin the s oil and description operation more well important proving subservers of the sediment of the	tered mail or by any method of delivery that requires a reconnect control plan required by section seven of this article, arface of the tract on which the well is or is proposed to be ad gas leasehold being developed by the proposed well we take in the erosion and sediment control plan submitted pater or lessee, in the event the tract of land on which the we coal seams; (4) The owners of record of the surface tract work, if the surface tract is to be used for the placement, condment or pit as described in section nine of this article; a water well, spring or water supply source located within de water for consumption by humans or domestic animals as well work activity is to take place. (c)(1) If more than extinct the sheriff required to be maintained pursuant to section of this article to the contrary, notice to a lien holder	tor pit as required by this article shall deliver, by personal service or by seipt or signature confirmation, copies of the application, the erosion and and the well plat to each of the following persons: (1) The owners of record of e located; (2) The owners of record of the surface tract or tracts overlying the ork, if the surface tract is to be used for roads or other land disturbance as oursuant to subsection (c), section seven of this article; (3) The coal owner, well proposed to be drilled is located [sic] is known to be underlain by one or or tracts overlying the oil and gas leasehold being developed by the proposed construction, enlargement, alteration, repair, removal or abandonment of any (5) Any surface owner or water purveyor who is known to the applicant to a one thousand five hundred feet of the center of the well pad which is used to so, and (6) The operator of any natural gas storage field within which the in three tenants in common or other co-owners of interests described in plicant may serve the documents required upon the person described in the extion eight, article one, chapter eleven-a of this code. (2) Notwithstanding any is not notice to a landowner, unless the lien holder is the landowner. W. Va. also provide the Well Site Safety Plan ("WSSP") to the surface owner and any sting as provided in section 15 of this rule.	
☑ A	pplication Notice ☑ WSSP Notice ☑ E&S Plan N	otice  Well Plat Notice is hereby provided to:	
	URFACE OWNER(s)	COAL OWNER OR LESSEE	
	e: George G. Hamilton	Name: none	
	ress: 2812 McElroy Creek Road	Address:	
Alma, WV 26320  Name: Gary L. Hamilton  COAL OPERATOR			
	ress: 102 Big Flint Road	Name: none	
	Union, WV 26456	Address:	
□ St	JRFACE OWNER(s) (Road and/or Other Disturbance)		
Nam	e:	☐ SURFACE OWNER OF WATER WELL	
	ress:	AND/OR WATER PURVEYOR(s)	
		Name:	
	e:	Address:	
Add	ress:	TOPEDATOR OF ANY NATURAL CAS STORAGE FIELD	
	Peceived	OPERATOR OF ANY NATURAL GAS STORAGE FIELD	
ΠSC	JRFACE OWNER(s) (In perpendence of Pits) Gas	Name: none	
Nan	ress:JAN 2 8 2015	Address:	
Aud	JAN 2 0 2013	*Please attach additional forms if necessary 04/17/2015	

API NO. 47- 095 OPERATOR WELL NO. SHR 30 DHS
Well Pad Name: SHR 30

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 1-22-15 Date Permit Application Filed: 1-23-15 Notice of: PERMIT FOR ANY ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT WELL WORK Delivery method pursuant to West Virginia Code § 22-6A-10(b) ☐ REGISTERED METHOD OF DELIVERY THAT REQUIRES A PERSONAL SERVICE MAIL RECEIPT OR SIGNATURE CONFIRMATION Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule. ☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice ☐ Well Plat Notice is hereby provided to: COAL OWNER OR LESSEE ☑ SURFACE OWNER(s) Name: Charles E. Hamilton, Jr. Address: 17095 WV Rt. 23 N Name: none Address: West Union, WV 26456 COAL OPERATOR Name: Name: none Address: Address: ☐ SURFACE OWNER(s) (Road and/or Other Disturbance) SURFACE OWNER OF WATER WELL Name: \_\_\_\_\_ AND/OR WATER PURVEYOR(s) Address: Name: Everett Roy & Betty June Weese Address: 2524 McElroy Creek Road Alma, WV 26320 Address: □ OPERATOR OF ANY NATURAL GAS STORAGE FIELD SURFACE OWNER(s) (Impoundments of Pits)
Name:
Address:
JAN 2 8 2015 Name: none Address: -----04/17/2015 \*Please attach additional forms if necessary

95 0224

API NO. 47- 095 OPERATOR WELL NO. SHR 30 DHS

#### Well Pad Name: SHR 30

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Noti	ice Time Requirement: notice s	shall be provided no later tha	in the filing date of permit application.
	e of Notice: 12215 Date Per	mit Application Filed: 1	23- <u>15</u>
V	PERMIT FOR ANY WELL WORK	CERTIFICATE OF APP	PROVAL FOR THE AN IMPOUNDMENT OR PIT
Deli	very method pursuant to West	t Virginia Code § 22-6A-10	(b)
	PERSONAL REGIS	STERED  METH	OD OF DELIVERY THAT REQUIRES A
	SERVICE MAIL	RECE	IPT OR SIGNATURE CONFIRMATION
sedin the soil and description operation well important have proven substruction of the soil and the soil and the soil and description operation with the soil and description operation of the soil and	ment control plan required by sectiurface of the tract on which the wind gas leasehold being developed ribed in the erosion and sediment ator or lessee, in the event the trace coal seams; (4) The owners of rework, if the surface tract is to be usuadment or pit as described in section a water well, spring or water supplied water for consumption by humosed well work activity is to take pection (b) of this section hold interest of the sheriff required to be made ision of this article to the contrary to the R. § 35-8-5.7.a requires, in part,	tion seven of this article, and the rell is or is proposed to be locally by the proposed well work, if control plan submitted pursually of land on which the well proposed for the surface tract or traction nine of this article; (5) Apply source located within one mans or domestic animals; and place. (c)(1) If more than three trests in the lands, the applicant animalined pursuant to section of the control of the place traction of the section of the place. (c)(1) If more than three trests in the lands, the applicant animal pursuant to section of the place to a lien holder is not that the operator shall also p	or signature confirmation, copies of the application, the erosion and the well plat to each of the following persons: (1) The owners of record of ated; (2) The owners of record of the surface tract or tracts overlying the of the surface tract is to be used for roads or other land disturbance as and to subsection (c), section seven of this article; (3) The coal owner, toposed to be drilled is located [sic] is known to be underlain by one or acts overlying the oil and gas leasehold being developed by the proposed ruction, enlargement, alteration, repair, removal or abandonment of any any surface owner or water purveyor who is known to the applicant to thousand five hundred feet of the center of the well pad which is used to a (6) The operator of any natural gas storage field within which the elements in common or other co-owners of interests described in the may serve the documents required upon the person described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding any notice to a landowner, unless the lien holder is the landowner. W. Va. rovide the Well Site Safety Plan ("WSSP") to the surface owner and any as provided in section 15 of this rule.
☑ A	application Notice  WSSP N	lotice □E&S Plan Notice	☑ Well Plat Notice is hereby provided to:
	JRFACE OWNER(s)		COAL OWNER OR LESSEE
	ne: Rebecca A. Seckman AKA Rebecters: 5042 Tyler Highway		Name: none Address:
	rsville, WV 26175		Audi Cos.
	ne: Kathy A. Seckman AKA Kathy A.	Roberts	COAL OPERATOR
Add	ress: 42842 Trail Run Road		Name: none
	Maramoras, OH 45767		Address:
	JRFACE OWNER(s) (Road and		
Nan	ne:		SURFACE OWNER OF WATER WELL
Add	ress:	Received	AND/OR WATER PURVEYOR(s)
NI	0#		Name: Michael K. & Virginia L. Griffin Address: P.O. Box 254
	ne:Offic	ce or Oll & Gas	Middlebourne, WV 26149
Aud	ress:	JAN 2 8 2015	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
n SI	JRFACE OWNER(s) (Impound		Name: _none
	ne:		Address:
Add	ress:	7	
	S <del>t </del>		*Please attach additional forms if necessary 04/17/2015

API NO. 47-095 95 0224

OPERATOR WELL NO. SHR 30 DHS

Well Pad Name: SHR 30

#### Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

#### This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="www.dep.wv.gov/oil-and-gas/pages/default.aspx">www.dep.wv.gov/oil-and-gas/pages/default.aspx</a>.

Office of Oil & Gas

#### Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be thing with two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

API NO. 47-<u>095</u>

OPERATOR WELL NO. SHR 30 DHS

Well Pad Name: SHR 30

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

#### Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

#### Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

#### Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

#### Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57<sup>th</sup> St. SE
Charleston, WV 25304
(304) 926-0450

Received
Office of Oil & Gas

JAN 2.8 2015

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

API NO. 47- 095

OPERATOR WELL NO. SHR 30 DHS

Well Pad Name: SHR 30

#### Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

#### Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

#### **Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Office of Oil & Gas

Received Office of Oil & Gas JAN 2 8 2015

> WW-6A (8-13)

API NO. 47- 095

OPERATOR WELL NO. SHR 30 DHS
Well Pad Name: SHR 30

Notice is hereby given by:

Well Operator: Noble Energy, Inc.

Telephone: 724-820-3061 Email: dswiger@nobleenergyinc.com

Address: 333 Technology Drive Suite 116 Canonsburg, PA 15317

Facsimile: 724-743-0050

# Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Official Seal
Notary Public
State of West Virginia
Dolores J Swiger
235 Coffage Avenue
Weston WV 26452
My Comm. Exp. 9-19-23

04/17/2015

Subscribed, and sworn before me this 15 day of Jan

Notary Public

My Commission Expires 09/19/2023

95 0224

Received Office of Oil & Gas JAN 2 8 2015

95 02241

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at leasentry	st SEVEN (7) days but no more than	FORTY-FIVE (45) days prior to
Date of Notice: 10/6/2014 Date of Planned Entry	y: by 11/20/2014	
Delivery method pursuant to West Virginia Code § 22-6	A-10a	
☐ PERSONAL ☐ REGISTERED ■ M.	ETHOD OF DELIVERY THAT RE	OUIRES A
	ECEIPT OR SIGNATURE CONFIRM	
Pursuant to West Virginia Code § 22-6A-10(a), Prior to filir on to the surface tract to conduct any plat surveys required plut no more than forty-five days prior to such entry to: (1) The beneath such tract that has filed a declaration pursuant to see owner of minerals underlying such tract in the county tax reand Sediment Control Manual and the statutes and rules related Secretary, which statement shall include contact information enable the surface owner to obtain copies from the secretary.  Notice is hereby provided to:	pursuant to this article. Such notice sleads of the surface owner of such tract; (2) to ction thirty-six, article six, chapter two cords. The notice shall include a stated to oil and gas exploration and property in the cords of the address for a web page.	nall be provided at least seven days of any owner or lessee of coal seams venty-two of this code; and (3) any tement that copies of the state Erosion oduction may be obtained from the
SURFACE OWNER(s)		
Name: Rebecca A. Seckman a/k/a Rebecca A. Barth	COAL OWNER OR LES	
Address: 5042 Tyler Highway	Name:	
Sistersville, WV 26175	Address:	
Name: Kathy A. Seckman a/k/a Kathy A. Roberts 🗸		
Address: 42842 Trail Run Road	MINERAL OWNER(s)	
New Maramoras, OH 45767	Name: George G. Hamilton	
Name: Stanley E. Seckman	Address: 2812 McElroy Road	
Address: 659 Jefferson Run Road Alma, WV 26320	Alma, WV 26320	
Aiina, WV 20320	*please attach additional forms if nec	essary
Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is here a plat survey on the tract of land as follows: State: West Virginia		2 10. 15t #
County: Tyler	Approx. Latitude & Longitude: Public Road Access:	North 39.413713 West 80.815143 E 515913.46 N 4362704.70  County Rt. 23
District: McElroy	Watershed:	huc-10 McElroy Creek
Quadrangle: Shirley	Generally used farm name:	Seckman
Copies of the state Erosion and Sediment Control Manual a may be obtained from the Secretary, at the WV Department Charleston, WV 25304 (304-926-0450). Copies of such do obtained from the Secretary by visiting		

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## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Re	equirement: Notice shall be provided a	at least SEVEN (7) days but no more than	n FORTY-FIVE (45) days prior to
entry			
Date of Notice:	10/6/2014 Date of Planned	Entry: by 11/20/2014	
Delivery metho	d pursuant to West Virginia Code §	22-6A-10a	
☐ PERSONA	AL REGISTERED	METHOD OF DELIVERY THAT RE	EQUIRES A
SERVICE	MAIL	RECEIPT OR SIGNATURE CONFIR	MATION
on to the surface but no more than beneath such tra owner of minera and Sediment Co Secretary, which	e tract to conduct any plat surveys require forty-five days prior to such entry to: et that has filed a declaration pursuant als underlying such tract in the county control Manual and the statutes and rule a statement shall include contact informace owner to obtain copies from the second	to filing a permit application, the operator aired pursuant to this article. Such notice so the surface owner of such tract; (2) to section thirty-six, article six, chapter to tax records. The notice shall include a state state of the surface of	shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any attement that copies of the state Erosion roduction may be obtained from the
■ SURFACE		☐ COAL OWNER OR LE	COCE
	A. Seckman a/k/a Rebecca A. Barth		
Address: 5042 T		Name:	<del></del> :
Sistersville, WV 26		Address:	
	Seckman a/k/a Kathy A. Roberts	1	
Address: 42842		■ MINERAL OWNER(s)	
New Maramoras, C		Name: Gary L. Hamilton	
Name: Stanley E.	Seckman	Address: 102 Big Flint Road	
Address: 659 Je	fferson Run Road	West Union, WV 26456	
Alma, WV 26320		*please attach additional forms if ne	cessary
a plat survey on		is hereby given that the undersigned wel  Approx. Latitude & Longitude:	l operator is planning entry to conduct  North 39.413713 West 80.815143 E 515913.46 N 4362704.70
	yler	Public Road Access:	County Rt. 23
	McElroy	Watershed:	huc-10 McElroy Creek
Quadrangle: _	Shirley	Generally used farm name:	Seckman
may be obtained Charleston, WV	d from the Secretary, at the WV Depar	nual and the statutes and rules related to of tment of Environmental Protection headquich documents or additional information a gov/oil-and-gas/pages/default.aspx.	uarters, located at 601 57th Street, SE,
Notice is here	by given by:		
Well Operator:		Address:	JAN 2 8 2015
Telephone:	724-820-3061	333 Technology Dri	ve, Suite 116 Canonsburg, PA 15317
Email:	dswiger@nobleenergyinc.com	Facsimile: 724-743-0050	The state of the s
	2000-000-000-000-0000		

### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Noti	ice Time Re	quirement:	Notice shall be provi	ded at	least SEVEN (7) day	s but no more than	FORTY-FIVE (45) days prior to			
Date	y e of Notice:	10/6/2014	Date of Plan	ned E	ntry: by 11/20/2014					
Deli	very metho	d pursuant	to West Virginia Co	de § 2	2-6A-10a	<del></del>				
	PERSONA	ı 🗆	REGISTERED		METHOD OF DELI	VERV THAT RE	OLURES A			
	SERVICE	_	MAIL	-	RECEIPT OR SIGNA		2			
D		(W	-1 622 (1 10( ) B	¥						
on to but r bene own and Secr enab	o the surface no more than eath such tra er of minera Sediment Coretary, which ole the surface	tract to cond n forty-five d ct that has fi ils underlying ontrol Manual a statement s ce owner to co	duct any plat surveys lays prior to such entraled a declaration purses such tract in the could all and the statutes and hall include contact in obtain copies from the	require ry to: ( uant to inty tax il rules informa	ed pursuant to this art 1) The surface owner o section thirty-six, art or records. The notice related to oil and gas tion, including the ad	icle. Such notice s of such tract; (2) t icle six, chapter to shall include a sta exploration and pi	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any attement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to			
_	,	y provided t	0;		П солг	OND IED OD I E	9955			
		OWNER(s)	/a Rebecca A. Barth			☐ COAL OWNER OR LESSEE				
	ress: 5042 T		7a Rebecca A. Baitii		Name:	Name:Address:				
	rsville, WV 26				Address		<del></del>			
Nam	ne: Kathy A. S	eckman a/k/a l	Kathy A. Roberts		\$ <del></del>					
Add	ress: 42842	Trail Run Road			■ MINE	RAL OWNER(s)				
	Maramoras, C				Name: Cha	rles E. Hamilton, Jr.				
	ne: Stanley E.				Address: 1	7095 WV Rt. 23 N				
		ferson Run Ro	ad		West Union, \	CONTROL CONTRO				
Alma	a, WV 26320				*please attach	additional forms if ne	cessary			
Purs	at survey on	t Virginia Co	ode § 22-6A-10(a), nand as follows:	otice is		undersigned well	operator is planning entry to conduct  North 39.413713 West 80.815143 E 515913.46 N 4362704.70			
Cou	·	yler			Public Road A		County Rt. 23			
Dist		1cElroy			Watershed:	cocss.	huc-10 McElroy Creek			
	-	Shirley			Generally used	farm name:	Seckman			
may Cha	be obtained rleston, WV	1 from the Se 25304 (304	cretary, at the WV D 4-926-0450). Copies	epartm of sucl	ent of Environmental	Protection headque on al information r	il and gas exploration and production uarters, located at 601 57th Street, SE, elated to horizontal drilling may be			
			- J				Received			
		by given by	y:				Office of Oil & Gas			
	l Operator:	Noble Energy, Inc.			Address:					
	phone:	724-820-3061	1			333 Technology Driv	ve, Suite 116 Canonsburg, PANS32-8 2015			
Ema	ail:	dswiger@nob	leenergyinc.com		Facsimile:	724-743-0050				
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### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at le	east SEVEN (7) days but no more than	FORTY-FIVE (45) days prior to				
Date of Notice: 10/6/2014 Date of Planned En	try: by 11/20/2014					
Delivery method pursuant to West Virginia Code § 22	-6A-10a					
☐ PERSONAL ☐ REGISTERED ■	METHOD OF DELIVERY THAT RE	OURES A				
	RECEIPT OR SIGNATURE CONFIR					
Pursuant to West Virginia Code § 22-6A-10(a), Prior to find on to the surface tract to conduct any plat surveys required but no more than forty-five days prior to such entry to: (1) beneath such tract that has filed a declaration pursuant to owner of minerals underlying such tract in the county tax and Sediment Control Manual and the statutes and rules respectively, which statement shall include contact informat enable the surface owner to obtain copies from the secretary.	d pursuant to this article. Such notice s ) The surface owner of such tract; (2) t section thirty-six, article six, chapter to records. The notice shall include a sta elated to oil and gas exploration and pa ion, including the address for a web pa	shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any attement that copies of the state Erosion roduction may be obtained from the				
Notice is hereby provided to:						
■ SURFACE OWNER(s)	☐ COAL OWNER OR LE	SSEE				
Name: Allen W. Seckman	Name:	Name:				
Address: 824 Jefferson Run Road	Address:	Address:				
Alma, WV 26320 Name: Donald L. Seckman						
Address: 705 Jefferson Run Road	■ MINERAL OWNER(s)					
Alma, WV 26320	S S S S S S S S S S S S S S S S S S S	mara.				
Name: Beverly J. Seckman	Name: same as listed surface ow Address:					
Address: 353 Foundry Street	Address.					
New Martinsville, WV 26155	*please attach additional forms if ne	cessary				
Notice is hereby given:  Pursuant to West Virginia Code § 22-6A-10(a), notice is a plat survey on the tract of land as follows:  State: West Virginia  County: Tyler	hereby given that the undersigned wel Approx. Latitude & Longitude: Public Road Access:	North 39.413713 West 80.815143 E 515913.46 N 4362704.70  County Rt. 23				
District: McElroy	Watershed:	huc-10 McElroy Creek				
Quadrangle: Shirley	Generally used farm name:	Seckman				
Copies of the state Erosion and Sediment Control Manua may be obtained from the Secretary, at the WV Departme Charleston, WV 25304 (304-926-0450). Copies of such obtained from the Secretary by visiting <a href="https://www.dep.wv.gov">www.dep.wv.gov</a>	ent of Environmental Protection headq documents or additional information i	uarters, located at 601 57th Street SE				
Notice is hereby given by:		JAN 28 2015				
Well Operator: Noble Energy, Inc.	Address:	JAN 2 0 2013				
Telephone: 724-820-3061		ve, Suite 116 Canonsburg, PA 15317				
Email: dswiger@nobleenergyinc.com	Facsimile: 724-743-0050					

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WW-6A5 (1/12)

Operator Well No. SHR 30 DHS

95 0224

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

		equirement: notice shall be provided no late  _/- 22 - 15  Date Permit Applic			application.
Delive	ry metho	d pursuant to West Virginia Code § 22-6.	A-16(c)		
		ED MAIL	ND LIVERY		
return the pla require drilling damag	receipt re anned ope ed to be prog g of a hor es to the se e notices	Va. Code § 22-6A-16(c), no later than the quested or hand delivery, give the surface o tration. The notice required by this subsection (b), section ten of this rizontal well; and (3) A proposed surface usurface affected by oil and gas operations to required by this section shall be given to the	wner whose land etion shall includes article to a surfa- ase and compens the extent the da	will be used for le: (1) A copy ace owner whose ation agreement mages are comp	r the drilling of a horizontal well notice of of this code section; (2) The information e land will be used in conjunction with the t containing an offer of compensation for bensable under article six-b of this chapter.
(at the Name: Addres	address li Charles E.	y provided to the SURFACE OWNER(s) sted in the records of the sheriff at the time Hamilton, Jr.  NV Rt. 23 N 6456	Name: _	:	
	is hereby	y <b>given</b> : t Virginia Code § 22-6A-16(c), notice is her	eby given that th	e undersigned v	vell operator has developed a planned
		e surface owner's land for the purpose of dri	lling a horizontal		
State:		Vest Virginia	UTM NAD 8	3 Easting: Northing:	515923.706 4362703.846
County	· -	95-Tyler Ic Elroy	Public Road A	_	County Rt. 58
Quadra	_	hirley	Generally use		Seckman
Waters		uc-10 Mc Elroy Creek	Generally ase	a ruin nume.	
Pursua to be p horizon surface inform headqu	nt to Wes provided ntal well; affected ation rela	all Include:  In Virginia Code § 22-6A-16(c), this notice is by W. Va. Code § 22-6A-10(b) to a surfact and (3) A proposed surface use and compet by oil and gas operations to the extent the steed to horizontal drilling may be obtained at 601 57th Street, SE, Charleston (Laspx.	ce owner whose nsation agreement damages are confrom the Secret	land will be un at containing an ampensable under ary, at the WV	sed in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection
Well	perator:	Nable Faces Inc	Address:	222 Tach-slav F	Origina State 116
Teleph	2	Noble Energy, Inc. 724-820-3061	- Address.	Canonsburg, PA	
Email:		dswiger@nobleenergyinc.com	Facsimile:		13317
Linuii.		азмувнения унистент	-		
0:1	d Cas Dr	lugay Notice			

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-6A5 (1/12)

Operator Well No. SHR 30 DHS 95 0 2 2 4 1

### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

		equirement: notice shall be provided notice shall be provided not be provided	o later than the filing pplication Filed:		application.
Deliv	ery meth	od pursuant to West Virginia Code § 2	22-6A-16(c)		
		ED MAIL	HAND DELIVERY		
return the pl requir drillin damag	receipt re anned op ed to be p g of a ho ges to the se notices	equested or hand delivery, give the surface eration. The notice required by this subrovided by subsection (b), section ten or izontal well; and (3) A proposed surface affected by oil and gas operation	ace owner whose land absection shall inclused this article to a surface use and compenses to the extent the date.	I will be used for de: (1) A copy ace owner whos sation agreemen amages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information e land will be used in conjunction with the t containing an offer of compensation for pensable under article six-b of this chapter. Sted in the records of the sheriff at the time
(at the Name Addre	address George G	by provided to the SURFACE OWNER listed in the records of the sheriff at the to Hamilton McElroy Creek Road	ime of notice): Name: Address	Gary L. Hamilton S: 102 Big Flint Ro nion, WV 26456	ad
Pursus operat	ion on th	st Virginia Code § 22-6A-16(c), notice in surface owner's land for the purpose of		l well on the tra	ct of land as follows:
State:	_	West Virginia	— UTM NAD 8	Easting: Northing:	515923.706 4362703.846
Count Distric	-	095-Tyler Mc Elroy	Public Road	1773	County Rt. 58
	-	Shirley	<del></del>	ed farm name:	Seckman
Water		nuc-10 Mc Elroy Creek		tarini nume.	
Pursuato be horized surfactinforn headq	ant to We provided ontal well e affected nation rel	by W. Va. Code § 22-6A-10(b) to a s; and (3) A proposed surface use and cod by oil and gas operations to the extendated to horizontal drilling may be obta ocated at 601 57th Street, SE, Charles	surface owner whose mpensation agreeme at the damages are co- ined from the Secret	e land will be un nt containing an empensable und tary, at the WV	code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection or by visiting

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact

DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Operator Well No. SHR 30 DHS

05 000 /

### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

		equirement: notice shall be provided no				application.
Delive	ry metho	d pursuant to West Virginia Code § 22	2-6A-16	(c)		
	CERTIFII RETURN		HAND DELIV	ERY		
return the pla require drilling damag	receipt re anned ope ed to be proger of a hor- es to the se e notices	quested or hand delivery, give the surfaction. The notice required by this subserved by subsection (b), section ten of rizontal well; and (3) A proposed surfactions affected by oil and gas operations.	e owner osection this article use as to the	whose land shall included to a surfactory and compensextent the da	will be used for de: (1) A copy ace owner whos ation agreemen mages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information e land will be used in conjunction with the t containing an offer of compensation for pensable under article six-b of this chapter. Sted in the records of the sheriff at the time
(at the Name: Addres	address li Donald L.	y provided to the SURFACE OWNER sted in the records of the sheriff at the tin Seckman ferson Run Road		Name: E	Beverly J. Seckman 353 Foundry Str rtinsville, WV 2615	reet
Pursua operati	ion on the	t Virginia Code § 22-6A-16(c), notice is surface owner's land for the purpose of			l well on the tra	ct of land as follows:
State: County	-	/est Virginia	– u	TM NAD 8	3 Easting: Northing:	515923.706 4362703.846
Distric	_	95-Tyler Ic Elroy	– <sub>p</sub>	ublic Road A	_	County Rt. 58
Quadra		hirley			d farm name:	Seckman
Waters	_	uc-10 Mc Elroy Creek	_	enerally asc	a turni mane.	
Pursua to be p horizon surface inform headqu	nt to Wes provided ntal well; e affected ation rela	by W. Va. Code § 22-6A-10(b) to a surface use and comby oil and gas operations to the extent ted to horizontal drilling may be obtain cated at 601 57th Street, SE, Charles	rface or opensation the danged from	wner whose on agreement nages are con the Secret	land will be un nt containing an empensable und ary, at the WV	code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection or by visiting

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

WW-6A5 (1/12)

Operator Well No. SHR 30 DHS 02241

### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

		equirement: notice shall be provided no later the			application.		
Deliver	y metho	od pursuant to West Virginia Code § 22-6A-1	6(c)				
■ CI	ERTIFI	ED MAIL HAND					
		RECEIPT REQUESTED DELIV					
return re the plan required drilling damages (d) The of notice	eceipt re ined ope I to be p of a ho is to the notices e.	Va. Code § 22-6A-16(c), no later than the dat quested or hand delivery, give the surface owner that the notice required by this subsection rovided by subsection (b), section ten of this art rizontal well; and (3) A proposed surface use a surface affected by oil and gas operations to the required by this section shall be given to the surface use of the surface of the SURFACE OWNER(s) issted in the records of the sheriff at the time of notice that the surface of the sheriff at the time of notice of the surface of the sheriff at the time of notice of the sheriff at the sheriff at the time of notice of the sheriff at t	er whose land n shall included icle to a surfa and compens extent the da rface owner a	I will be used for de: (1) A copy ace owner whos ation agreemen images are comp	or the drilling of a horizontal well notice of of this code section; (2) The information e land will be used in conjunction with the t containing an offer of compensation for pensable under article six-b of this chapter.		
		Seckman		Allen W. Seckman			
	Address: 659 Jefferson Run Road Address: 824 Jefferson Run Road						
	Alma, WV 26320 Alma, WV 26320						
Pursuan	t to Wes on on th <u>v</u>	95-Tyler Ac Elroy	g a horizonta UTM NAD 8 Public Road A	l well on the tra- Easting: Northing:			
Watersh		uc-10 Mc Elroy Creek					
This No Pursuan to be proportional bourface informatheadqua gas/page	This Notice Shall Include: ursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a porizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection eadquarters, located at 601 57 <sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-as/pages/default.aspx">www.dep.wv.gov/oil-and-as/pages/default.aspx</a> .						
Well Op		Noble Energy, Inc.	Address:	333 Technology I			
Telepho	ne:	724-820-3061		Canonsburg, PA	15317		
Email:		dswiger@nobleenergyinc.com	Facsimile:	724-743-0050			
Oil and	Cac Dr	ivacy Natice					

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact Received DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Office of Oil & Gas

Operator Well No. SHR 30 DHS

### STATE OF WEST VIRGINIA 90 02 DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

	Requirement: notice shall be provided no later the:			application.
Delivery met	hod pursuant to West Virginia Code § 22-6A-10	6(c)		
CERTII	FIED MAIL HAND			
RETUR	RN RECEIPT REQUESTED DELIV	'ERY		
return receipt the planned of required to be drilling of a l damages to th	V. Va. Code § 22-6A-16(c), no later than the date requested or hand delivery, give the surface owner operation. The notice required by this subsection provided by subsection (b), section ten of this artificial control well; and (3) A proposed surface use a surface affected by oil and gas operations to the ser required by this section shall be given to the surface.	er whose land in shall including icle to a surfa and compens extent the da	I will be used for de: (1) A copy of ace owner whose ation agreement mages are comp	r the drilling of a horizontal well notice of of this code section; (2) The information e land will be used in conjunction with the containing an offer of compensation for tensable under article six-b of this chapter.
Notice is here	eby provided to the SURFACE OWNER(s)			
	s listed in the records of the sheriff at the time of n	otice):		
Name: Rebecc	a A. Seckman AKA Rebecca A. Barth	Name:	Kathy A. Seckman /	AKA Kathy A. Roberts
Address: 5042			: 42842 Trail Run	
Sistersville, WV	26175	New Ma	ramoras, OH 45767	
	rest Virginia Code § 22-6A-16(c), notice is hereby the surface owner's land for the purpose of drilling West Virginia  095-Tyler  Mc Elroy  Mc Elroy	g a horizonta JTM NAD 8 Public Road	l well on the trac Easting: Northing:	
to be provide horizontal we surface affect information re	Vest Virginia Code § 22-6A-16(c), this notice shall d by W. Va. Code § 22-6A-10(b) to a surface of a surface of the compensate of the compensation of the compensate of the compensation of the comp	owner whose ion agreement mages are command the Secret	e land will be un nt containing an ompensable undo ary, at the WV	sed in conjunction with the drilling of a offer of compensation for damages to the er article six-b of this chapter. Additional Department of Environmental Protection
Well Operator	: Noble Energy, Inc.	Address:	333 Technology D	prive, Suite 116
Telephone:	724-820-3061		Canonsburg, PA 1	5317
Email:	dswiger@nobleenergyinc.com	Facsimile:	724-743-0050	
Oil and Gas	Privacy Notice:			

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact

DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

### OIL AND GAS ROAD STATEWIDE BONDING AGREEMENT



THIS AGREEMENT, executed in duplicate, made and entered into this \_2\_ day of \_May\_\_, 2012, by and between the WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, hereinafter called "DEPARTMENT," and Noble Energy, Inc. a Delaware, company, hereinafter called "COMPANY."

#### WITNESSETH:

WHEREAS, Company has horizontal gas well drilling operations in certain areas of West Virginia; and

WHEREAS, the Department believes that the frequent and repetitive use of certain sections of highways in the State by Company, its contractors, agents, independent contractors or suppliers of drilling materials or drilling equipment, and employees contributes to increased wear and tear to public roads in the state road system in the State, including local roads ("State Owned Roads"); and,

WHEREAS, the Department and Company have entered into this Agreement to satisfy the requirements of the Department's policy entitled "Oil & Gas Road Policy" dated January 3, 2012, as issued by Paul A. Mattox, Jr., Secretary of Transportation / Commissioner of Highways, and any subsequent related policies, hereinafter called "Policy", a copy of which is made a part of this Bonding Agreement and is identified as Attachment 1.

NOW, THEREFORE, for and in consideration of the mutual agreements hereinafter set forth, the parties agree as follows:

- I. For purposes of this Bonding Agreement, "Project Transportation Usage" of the Company shall be understood to mean use of one or more State Owned Roads for the delivery and removal of drilling materials and drilling equipment at the site or location of one or more of Company's horizontal gas well pad locations. To the extent reasonably practical, prior to commencing use of a State Owned Road for Project Transportation Usage after January 1, 2011, the Company shall submit to the Department a section or sections of current official WVDOH County Highway maps identifying the exact location of the proposed project and the State Owned Roads that the Company will utilize for the Project Transportation Usage.
- 11. Company and Department shall within 14 days of the Company's submittal, agree to a list of these sections of State Owned Roads, hereinafter called "Project Roads List", to be utilized for each of Company's projects, identified by route number and milepost; at a time to be mutually agreed to by the parties prior to initial commencement of Project Transportation Usage of a particular State Owned Road on a Project Roads List, the Company and Department will jointly review the condition of the roads and bridges on the Project Roads List. The Department will document the road type and surface condition and general right-of-way width of each section of road on the Project Road List. Either party may supplement this documentation with photographs, video or other evidence of the present condition of the road surface, shoulders, ditches, culverts, bridges or other structures or appurtenances of roads on the Project Road List, as well as approaches to the roads, utility facilities located within or along the right-of-way, or any other condition, including third-party activities, that may affect the duties and responsibilities of the parties under this Agreement. A copy of any such documentation must be made and provided to the other party within ten business days after the joint review of the roads on the Project Roads List.
- III. Department shall issue a Project Agreement or Project Permit, as appropriate, to Company to use State Owned Roads and may include any minor or major improvements required of Company prior to, during or after Project with the assignment of responsibilities of both parties prior to, during and after the operator has completed well fracturing.

- IV. In the Project Agreement/Project Permit, the Department shall not require the use of State Owned Roads other than the roads proposed by Company unless the Department has safety concerns as to the Company's proposed roads. A failure to agree on roads that may otherwise be lawfully used for a particular Project Transportation Usage shall result in the designation of the State Owned Roads proposed by Company, with milepost determinations as designated by Department. This Agreement shall only cover portions of State Owned Roads designated on the Project Roads List.
- V. For the duration of Company's Project Transportation Usage of the Stated Owned Roads on the Project Roads List, whether by the Company, its contractors (while working on behalf of Company), agents, independent contractors or suppliers of drilling atterials or drilling equipment, or employees, the Company agrees to pay for all reasonable maintenance and repair costs incurred by the Department to repair areas of the State Owned Roads included in the Project Roads List that were directly damaged by Company's Project Transportation Usage, as determined to be reasonably necessary and appropriate by the Department. The Department shall keep a record of all labor performed by Department employees and contractors for such maintenance and repairs and shall send an invoice for the same to Company.
- VI. Company shall be responsible for the cost of all maintenance and repairs reasonably necessary to put the existing roadways, bridges and appurtenances on the Project Roads List utilized for the Project Transportation Usage in the condition that existed immediately prior to the Project Transportation Usage. Company shall not be required to pay for maintenance or repairs to put any areas of such roadways, bridges and appurtenances on the Project Roads List in a condition better than the condition that existed immediately prior to the Project Transportation Usage. Company shall also not be required to pay for maintenance or repairs to any areas of these roadways, bridges or appurtenances on the Project Roads List that are not actually utilized for the Project Transportation Usage or for damage not caused by Project Transportation Usage.
- Company shall notify the Department in writing of Company's final completion of Project Transportation Usage for particular roadways, bridges and appurtenances on the Project Roads List. Within fourteen days after its receipt of written notification of the completion of the Project Transportation Usage for all roads on a Project Roads List, the Department will review the condition of the roadways, bridges and appurtenances on the Project Roads List actually utilized for the Project Transportation Usage and advise Company of any final repairs reasonably necessary to leave these roads, bridges and appurtenances in a condition reasonably deemed by Department to be equal to their condition prior to commencement of Project Transportation Usage; and, upon completion of all such final repairs by or on behalf of Company and acceptance by Department, the Company shall be released from all further liability for maintenance or repairs to roads, bridges, or appurtenances on said Project Roads List. Any maintenance or repair work under the Project Agreement/Project Permit for roads, bridges or appurtenances on the Project Roads List may be performed by a contractor directly chosen by the Company as approved by the Department, the Department's workforce, or a private contractor hired by the Department through the public bid process in accordance with state law, all of which work shall be subject to the standards and specifications of the Department.
- VIII. In order to ensure performance of Company's performance and payment obligations under this Bonding Agreement, the Company shall post a corporate surety bond, hereinafter called "Master Bond", with the Department named as the beneficiary, which form of bond shall be subject to the consent of the Department, not to be unreasonably withheld. The amount and form of the bond shall be in accordance with the Policy as set forth above. However, the amount of the Master Bond does not limit the amount of claims that may be made by the Department against the Company under this Bonding Agreement. The Company shall provide the Master Bond to the Department within one (1) month after the execution of this Bonding Agreement. The Master Bond shall secure the good faith performance of all payment obligations of Company under the terms of this Bonding Agreement respecting the roads, bridges and appurtenances on the Project Roads List for each Project Transportation Usage undertaken by the Company, and shall remain in effect until termination of this Agreement. Company shall not be obligated to provide any other bonds, sureties, or other guarantees of performance to the Department for Company's use of State Owned Roads, except as required in this Agreement.

Office of Oil & Gas

- 1X. Company shall maintain Commercial General Liability Insurance in the amount of two million dollars, with a minimum coverage of one million dollars per occurrence, for personal injury or death to persons, or for property damage, resulting from Company's Project Transportation Usage and shall present evidence of such insurance to Department upon request.
- X. Company's usage of State Owned Roads under the Project Agreement/Project Permit shall comply with all applicable Federal, State and local laws and regulations including, but not limited to, to the extent applicable, the National Environmental Policy Act, Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Rare, Threatened and Endangered Species Act, Section 401 Water Quality Certification, and hazardous waste requirements. Further, upon reasonable written request of Department, Company shall furnish Department with acceptable documentation of such compliance which is in the possession of the Company.
- XI. Company shall defend, indemnify and hold Department harmless from and against any and all losses, damage, and liability, and from all claims for damages on account of or by reason of bodily injury, including death, which may be sustained, or claimed to be sustained, by any person or persons, including employees of Department, and from and against any and all claims, losses or liabilities for damages to property, arising out of the negligent or willful acts or omissions of Company, its agents, independent contractors and suppliers of drilling materials or drilling equipment, employees and contractors, in the performance of all Project Transportation Usage activities undertaken pursuant to this Agreement (collectively, "claims"). The Company shall not be responsible to indemnify, defend or hold harmless Department for any claims caused by the negligent or willful acts or omissions of the Department or its agents, employees and contractors or third parties not performing work at the direction of Company or delivering drilling equipment or drilling materials, including water, for use by or for company.
- XII. If a provision of this Agreement is or becomes illegal, invalid or unenforceable in any jurisdiction, that shall not affect the validity or enforceability of any other provision of this Agreement; or the validity or enforceability in other jurisdictions of that or any other provision of this Agreement.
- XIII. Department shall give Company a minimum of thirty days written notice of default under the terms of this Bonding Agreement and the opportunity to cure this default during such thirty-day period. If a default is not cured to the satisfaction of Department, or provision acceptable to Department is not made for a cure, Department may then elect to terminate this Bonding Agreement in whole or in part, and may in addition exercise its rights under the Master Bond or seek any other lawful relief available. Company may terminate this Bonding Agreement upon thirty days written notice to Department for any reason. In the event Company terminates this Agreement for any reason, it shall be liable for the repair and maintenance costs set forth above for prior Project Transportation Usage.
- XIV. Nothing herein shall be construed to mean that Company shall have any jurisdiction or control over any public roads in the state road system.
- XV. Company, its contractors, agents, employees and suppliers shall at all times be subject to applicable provisions of state and federal law, including without limitation laws requiring operation of vehicles in accordance with legal size and weight restrictions and posted weight limits. Oversize/overweight permits for vehicle or loads not otherwise conforming with law must be obtained in accordance with law; Department agrees to work in good faith with Company to review and grant (where authorized by law) such permits in a timely manner upon request by Company.
- XVI. This Bonding Agreement shall be construed and enforced in accordance with the laws of the State of West Virginia, as they may be amended.
- NVII. This Bonding Agreement shall be binding upon the successors and assigns of each flice of Oil & Gas party hereto.

Received Hice of Oil & Gas JAN 2 8 2015 be executed by their duly authorized officers effective as of the date first above written.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS

Witness

y: State Highway Fund

Witness

Title: Senior Operations Manager

(To be executed in duplicate)

RECEIVED

MAING MUE DIVISION

APPROVED AS TO FORM THIS 29 DAY OF 20 12

ATTORNEY LEGAL DIVISION WEST VIRGINIA DIVISION OF HIGHWAYS

Received
Office of Oil & Gas

JAN 28 2015



### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

### **Division of Highways**

Earl Ray Tomblin Cha

1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

Paul A. Mattox, Jr., P. E. Secretary of Transportation/ Commissioner of Highways

November 5, 2014

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57<sup>th</sup> Street, SE Charleston, WV 25304

Subject: DOH Permit for the SHR-30 and SHR-31 Well Pads, Tyler County

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2014-0719 for the subject site to Noble Energy, Inc. for access to the State Road for the well sites located off of Marshall County Route 58 SLS.

The operator has signed an OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Day & Clayton

Gary K. Clayton P.E. Regional Maintenance Engineer Central Office Oil &Gas Coordinator

Cc: James L. McCune Noble Energy, Inc. CH, OM, D-6

File

Received Office of Oil & Gas

JAN 2 804/517/2015

#### Hydraulic Fracturing Fluid Product Component Information Disclosure Hydraulic Fracturing Fluid Composition:

Trade Name	sh Water Operator		Chemical Abstract Service Number (CAS #)	The second secon	
Fresh Water					100.00%
HYDROCHLORIC ACID 5-10%	Halliburton		Hydrochloric acid	7647-01-0	10.00%
SAND - COMMON WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00%
SAND - PREMIUM WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00%
FR-66	Halliburton	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	30.00%
BE-9	Halliburton	Biocide	Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00%
Scalechek® LP-65 Scale Inhibitor	Halliburton	Scale Inhibitor	Ammonium chloride	12125-02-9	10.00%
LGC-36 UC	Halliburton	Liquid Gel Concentrate	Guar gum	9000-30-0	60.00%
			Naphtha, hydrotreated heavy	64742-48-9	60.00%
LCA-1	Halliburton	Solvent	Paraffinic solvent	Confidential Business Information	100.00%
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Methanol	67-56-1	60.00%
			Propargyl alcohol	107-19-7	10.00%
FE-1A ACIDIZING COMPOSITION	Halliburton	Additive	Acetic acid	64-19-7	60.00%
			Acetic anhydride	108-24-7	100.00%
LoSurf-300D	Halliburton	Non-ionic Surfactant	1,2,4 Trimethylbenzene	95-63-6	1.00%
			Ethanol	64-17-5	60.00%
			Heavy aromatic petroleum naphtha	64742-94-5	30.00%
			Naphthalene	91-20-3	5.00%
			Poly(oxy-1,2-ethanediyl), alpha-(4- nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00%
SP BREAKER	Halliburton	Breaker	Sodium persulfate	7775-27-1	100.00%
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Guar gum	9000-30-0	100.00%

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and

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> > JAN 28 2015

<sup>\*</sup> Total Water Volume sources may include fresh water, produced water, and/or recycled water
\*\* Information is based on the maximum potential for concentration and thus the total may be over 100% Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

CONTALCTOR SHALL NOTEY THE ONE-CALL SYSTEM OF THE RATUDING SKYLINDAYS.

ON BEMOLITION HOT LESS THAN FORTY SHOPT (SHOPE) BYCLINDAYS SKYLINDAYS.

SYNDAY'S AND LEGAL FEDERAL DR STATE HOLDAY'S, NOR MORE THAN TEX (10)

SYNDAY'S AND LEGAL FEDERAL DR STATE HOLDAY'S, NOR MORE THAN TEX (10)

SYNDAY'S AND LEGAL FEDERAL DR STATE HOLDAY'S, NOR MORE THAN TEX (10) YLER COUNTY, WY HIGHWAY MAP ONE CALL UTILITY SYSTEM CONTACT INFO VICINITY MAP SCALE HIGHWAY MAP SCALE - PROJECT LOCATION PROJECT DRIVING DIRECTIONS FOR EQUIPMENT THAT EXCEEDS THE POSTED WEIGHT LIMITS ON WV18 FROM THE INTERSECTION OF US 50 AND WV 18 NEAR WEST UNION, WV OF US 50 AND WV 18 NEAR WEST UNION, WV TRAVEL APPROXIMATELY 11 MILES NORTH ON WY 11.
TURN HIGHT OWN DUCLYMORTH BINDER DON CIT SIT).
TURN LET FORTO MORTELY 21 MILES NORTHELST ON CR. SUT.
TURN LET FORTO MORTELY 21 MILES NORTHELST ON CR. SUT.
TRAVEL APPROXIMATELY 21 MILES NORTH ON CR. SU. THAVEL APPROXIMATELY 11.1 MILES NORTH ON WY 18.
TURN EIGHT ONTO REFEESON RUN ROAD (CR 53).
TRAVEL APPROXIMATELY 13 MILES SOUTH ON CR 54.
TURN LEFT ONTO THE EXISTING ACCTESS ROAD. RECEIVING WATER MIDDLE ISLAND CREEK SHR 31 WELL PAD, TANK PAD, ELY 0.1 MILES NORTH ON CR 50. FPERSON RUN BOAD (CR 50. ELY 3.3 MILES NORTH ON CR 58. McELROY DISTRICT, TYLER COUNTY, WV THE MECHANISM CONTAINS HELE ME ISEL EACH MADIGHT OF THE THREATH BEDUE, ME, METHODOLISM OF THESE DOCUMENTS IN WHOLE THE MATERIC OR MAY REASON WITHOUT AREA WHITTHE MEMBERHAL STRUCTURE ADMINIST. CONTROL OF METHOD WITHOUT AND WHITE MEMBER ADMINISM OF THE M PROJECT LOCATION **AND ACCESS ROAD CONSTRUCTION PLANS FOR OCTOBER 31, 2014** SHR 31 WELL PAD TOPHOLE COORDINATES ENERGY, INC. NOTE: THESE FLANS INCORPORATE THE PROPOSED S
INCLUDE THE ERMANING OF THE "PROPOSED SHADSTAGING AREA" AS "PROPOSED SHE 19 WITCH THE WANTING HAVE BEEN REVISED WHERE SPRII Total Disturbance 12.01 Pad & Tank 252 | 694 | 2933 VELL PAD". REFERENCES E NOTED DI THESE HAVE BEEN MODIFIED. FUTURE WELL PAD AND Worthing Total 1,3-13,15-APPROVED FOR BIDS APPROVED FOR PERMITS APPROVED FOR CONSTRUCTION DATE: 600 WHITE OAKS BOULEVARD - BRIDGEPORT, WV 26330 PHONE (304) 624-4108 - FAX (304) 624-7831 PBN ΥB 12/15/14 DATE PERALL SITE PLAN

R 31 ACCESS ROAD PLAN AND PROFILE
R 31 ACCESS ROAD SECTIONS REWISED FOR SHR 30 PERMIT APPLICATION NOBLE ENERGY, INC.
3x Technology Drive, Suite 116
Campaburg, Pennsylvania 15317
(724) 820-3000 DATE DATE: 10/31/14 SHEET INDEX noble energy DESCRIPTION DESCRIPTION BY: BY: BY: RM of Oil & Gas Office JAN 28 2015

