

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452 Jim Justice , Governor Austin Caperton , Cabinet Secretary www.dep.wv.gov

Wednesday, February 08, 2017 WELL WORK PERMIT Horizontal 6A / Re-Work

CNX GAS COMPANY LLC (A) POST OFFICE BOX 1248

JANE LEW, WV 263786506

Re: Permit approval for PEN2KHS

47-085-10075-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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) 926-0450.

James A. Martin

den

Chief

Operator's Well Number: PEN2KHS

Farm Name: KIESSLING, TERRY & HELEN U.S. WELL NUMBER: 47-085-10075-00-00

Horizontal 6A / Re-Work

Date Issued: 2/8/2017

Promoting a healthy environment.

API Number: 85 - 10075 F

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. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. 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.
- 2. 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.
- 3. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 4. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 5. 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.
- 6. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

WW-6B	
(04/15)	

Frac

API NO. 47-85 -	10075	F
OPERATOR WEL	L NO.	PEN2KHS
Well Pad Name:	PEN2	

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

1) Well Operat	tor: CNX GAS	COMPANY LLC	494458046	085	Clay	Ellenboro
			Operator ID	County	District	Quadrangle
2) Operator's V	Well Number: PE	N2KHS	Well Pa	ad Name: PE	N2	
3) Farm Name	/Surface Owner:	Kiessling	Public Ro	ad Access: C	ounty Road	6/3
4) Elevation, c	urrent ground:	1075.4 Ele	evation, proposed	d post-constru	ction: 1075.	4
5) Well Type	(a) Gas x	Oil	Uno	derground Sto	rage	
	Other					11
	(b)If Gas Sha	allow x	Deep			Michael 20/1
Carlotta and a		rizontal X				Victory 100
	d: Yes or No yes	7 - 1 - 2 - 2 - 1 - 2 - 1 - 2 - 2 - 2 - 2				7-30-10
The second of the second of the second), Depth(s), Antici -6324, Thickness 6	The second second		Pressure(s):	13
8) Proposed To	otal Vertical Dept	h: 6314'			3	
9) Formation a	t Total Vertical D	Depth: Marcellus				
10) Proposed T	Total Measured D	epth: 14781'				
11) Proposed F	Horizontal Leg Le	ength: 9493'				
12) Approxima	nte Fresh Water S	trata Depths:	454			
13) Method to	Determine Fresh	Water Depths: C	closest well and	Seneca Tecl	hnology data	abase
	ite Saltwater Dep					
15) Approxima	ite Coal Seam De	pths: No Coal				
16) Approxima	ate Depth to Possi	ble Void (coal min	ne, karst, other):	none		
	osed well location ing or adjacent to	an active mine?	Yes	1	No X	
(a) If Yes, pro	ovide Mine Info:	Name:				
		Depth:			Br	
		Seam:			Office n	I Wand O
		Owner:				and das
					JAN	0 3 2017

Wy Denaulment of Environmental Protection Page 10210/2017

WW-6B	
(04/15)	

1	API NO. 47- 85 - 10075	F
	OPERATOR WELL NO	PEN2KHS
	Well Pad Name: PEN	2

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	N	LS	52	40'	40'	GTS
Fresh Water	13 3/8"	N	J-55	54.5	579'	579'	CTS
Coal					1		
Intermediate	9 5/8"	N	HCK-55 BTC	36.0	5410'	5410'	CTS
Production	5 1/2"	N	HCP-110 TXP BTC	20.0	14781'	14781'	14.5 ppg Class A tail slurry to intermediate
Tubing							
Liners							



MAC 16

ТҮРЕ	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	26"	0.25	2703		Grout to surface	Grout to surface
Fresh Water	13 3/8"	17.5"	.380	2730		Type 1	1.18
Coal							
Intermediate	9 5/8"	12.25"	.352	3520		Class A	1.19
Production	5 1/2"	8.75/8.5"	.361	12,640		Class A	1.27
Tubing	1 - 7 1						
Liners							

PACKERS

Kind:	
Sizes:	
Depths Set:	- RECEIVED
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WV Descriment of Environmental Protection Page 102/310/2017

WW-6B
(10/14)

API NO. 47-85	- 10075	F
OPERATOR W	VELL NO.	PEN2KHS
Well Pad Na	me: PEN2	

19) Describe proposed well work, including the drilling and plugging back

Well previously drilled by NOBLE ENERGY. Submitting permit application to complete hydraulic fracturing operations and produce the well.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

The completions phase will be multiple stages 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. Max Pressure 9,600 PSI, Max Rate 100 BPM

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 1.5 expansion
- 22) Area to be disturbed for well pad only, less access road (acres): 1.5

Expansion

23) Describe centralizer placement for each casing string:

PREVIOUSLY COMPLETED. From original NOBLE ENERGY submittal "Conductor- No centralizers used. Fresh Water/Surface- Bow spring centralizers every 3 joints to surface. Intermediate- Bow spring centralizers on every joint to KOP, one every third joint from KOP to 100' surface. Production - Rigid bow spring every third joint from KOP to TOC, rigid bow spring every joint to KOP" (previous submittal attached)

24) Describe all cement additives associated with each cement type:

PREVIOUSLY COMPLETED. From original Noble Energy submittal "Conductor 1.15% CaCl2.

Fresh Water -1.15% CaCl2. Coal 1.15 CaCl2, 0.6% gas migration control additive, 0.5% fluid loss additive, 0.4% salt tolerant dispersant, and 0.3% defoamer, Intermediate -10.0% BWOW NaCl, 0.2% BWOB Anti-Foam, 0.3% BWOW Dispersant, 0.4% BWOB Cement retarder. Production: 2.6% Cement extender, 0.7% Fluid Loss additive, 0.5% high temperature retarder, 0.2% friction reducer." (previous submittal attached)

25) Proposed borehole conditioning procedures:

PREVIOULY COMPLETED. From original NOBLE ENERGY submittal "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 procedure. Fresh Water- The hole is drilled w/air and casing is run with air. Once casing is on bottom, the hole is filled w/ KCl water and a minimum of one hole volume is circulated prior to pumping cement. Coal- The hole is drilled with air and casing is run in air. Once casing is at set depth, the hole is filled w/KCl water and a minimum of one hole volume is circulated 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 drilled to TD. The well is conditioned with KCl Circulation prior to running casing. Once casingis 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 a drilling pump rate for at least three hours. Once the torque and drag trends indicate the hole is clean and drilling BHA is puled and casing is run. Once on bottom w/ casing the hole is circulated a minimum of one hole volume prior to pumping cement." (Previous submittal attached)

*Note: Attach additional sheets as needed.

English 200 Page 92/3 0/2017

noble energy

Casing Summary

Well Name: PEN-2K-HS

	nductor, 40.0ftKB										
Set D	Depth (fIKB)	Sel Tension	n (kips)	String I	Nominal OD (in)	String Min Drift (In)	0	entralizers		Scratchers	
Jts		OD (in)	ID (in)	WI (Ib/II)	Grade	Top Thread	Top (fiKB)	Btm (ftKB)	Len (ft)	P Burst (psl)	P Collapse (p:
_ 1	Casing Joints	20	19.124	94.00	J-55		0.0	40.0	40,00		520.
	face, 590.0ftKB										1
Sel C	Pepth (fiKB) 590	Set Tension	n (kips)	String	Vominal OD (in)	13 3/8 String Min Drift (in)	12,459 5	entralizers		Scratchers	
Jis	ttem Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (ps
13	Casing Joints	13 3/8	12.615	54.50	J-55	Buttress Thread	0.0	545.6	545.55		1,130.
1	Float Collar	13 3/8	12.615	54.50	J-55	Buttress Thread	545.6	546.7	1.15		1,130.
1	Casing Joints	13 3/8	12.615	54.50	J-55	Buttress Thread	546.7	588.5	41.80		1,130.0
1	Float Shoe	13 3/8	12.615	54.50		Buttress Thread	588.5	590.0	1.50		
Inte	rmediate 1, 5,598.0ftKB										
Set D	epin (fiKB) 5,598	Set Tension	n (kips)	String N	iominal OD (in)	9 5/8 String Min Drift (in)	C 6	entralizers 9		Scratchers	
JIS	Item Des	OD (in)	ID (in)	WI (Ib/II)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psl)	P Collapse (ps
1	Landing Joint	9 5/8	8.921	36.00	HCK-55	BUTTRESS	0.1	26.4	26.30		2,020.0
1	Hanger	9 5/8	8.921	36.00	HCK-55	BUTTRESS	26.4	28.7	2.30		2,020.0
13 5	Casing Joints	9 5/8	8.921	36.00	HCK-55	BUTTRESS	28.7	5,511.7	5,483.03		2,020.0
1	FLOAT COLLAR	9 5/8	8.921	36.00	HCK-55	BUTTRESS	5,511.7	5,512.8	1.05		2.020.0
2	Casing Joints	9 5/8	8.921	36,00	HCK-55	BUTTRESS	5,512.8	5,596,6	83.83		2,020.0
1	FLOAT SHOE	9 5/8	8.921	36.00	HCK-55	BUTTRESS	5,596.6	5,598.0	1.40		2,020.0
PRO	DUCTION 5.5", 14,461.0f	tKB			1,07	A 18 S N					
	opth (NKB) 14,461	Set Tension	(kips)	String N	ominal OD (in)	5 1/2 String Min Drift (in)	Ce	ntralizers		Scratchers	
Jts	Item Des	OD (in)	1D (in)	Wt (lb/tt)	Grade	Top Thread	Top (fiKB)	Bim (ftKB)	Len (ft)	P Burst (psl)	P Collapse (psf
14	Casing Joints	5 1/2	4.778	20.00	P-110		-0.1	5,966.6	5,966.65	T Color (pory	11,100.0
1	#4 Pup jt	5 1/2	4.778	20.00	P-110		5,966.6	5,976.7	10.14		11,100.0
25	Casing Joints	5 1/2	4.778	20.00	P-110		5,976.7	6,986.4	1,009.69	_	11,100.0
1	#3 Pup it	5 1/2	4.778	20.00	P-110		6.986.4	6,996.6	10.15		11,100.0
61	Casing Joints	5 1/2	4,778	20.00	P-110		6,996.6	9,442.7	2,446,15		11,100.0
	Pup it #2	5 1/2	4.778	20.00	P-110		9,442.7	9,464.4	21.70	_	11,100.0
	Casing Joints	5 1/2	4.778	20.00	P-110		9,464.4	11,935.3	2.470.93		11,100.0
	I Pup jt	5 1/2	4.778	20.00			11,935.3	11,955.6	20.26		11,100.0
-	Casing Joints	5 1/2	4.778	20.00			11,955.6	14,334.8	2,379.20		11,100.0
1	Orio valve	5 1/2	4.778	20.00	And the second of		14,334.8	14,338.3	3.50		11,100.0
1	Casing Joints	5 1/2	4.778	20.00			14,338.3	14,380.1	41.81		11,100.0
1	Float Collar	5 1/2	4.778	20.00	the second second second		14,380.1	14,381.3	1.15		11,100.0
	Casing Joints	5 1/2	4.778	20.00	() ()		14.381.3	14,459.5	78.23		11,100.0
	Float Shoe	5 1/2						,			11,100.0

Office of the Gas JAN 9,8,2913 2017 MAC VVV MAPERINERIA MAP 2016 Environmental 02/10/2017

noble energy

Cement Summary

API	12.7. 30.4.							Report	Date: 12/6/201
47-085-10075 Ground Elevation (ft)	Surface Leg		Regulatory Fiel		County/Parish RITCHIE		Province ST VIRGINIA		onfiguration Type ZONTAL
KLE DIVE	,084	ge Elevation (ft) 1,083.25	KB - GL / MSL	(fiKB) 25.50	KB-Casing Flange Distant	26.25 Spud	Date 1/12/2014 10:00		ease Date 5/7/2014 18:00
Surface Casing Cem	ent, Casing, 1/	11/2014 07:30							3/1/2014 10.00
Description Surface Casing Ceme	nt								
String Surface, 590.0ftKB		Cen	nenting Start Da	te /2014	Cementing End Date		Wellbore		
Top Depth (ftKB)	Bottom Dept	n (ftKB)	Top Plug?	12014	1/11/20 Bottom Plug?		Original Hole Bump Pressure (psi)		
Initial Proper Date (http://www.	0.0	590.0		Yes	No	riug		0.0 Ceme	nt Circulated? Yes
Initial Pump Rate (bbl/min)	Final Pump F	Rate (bbl/min)	Plug Bump Pre	ssure (psi) 750.0	Pipe Reciprocated?	Tagg	ed Depth (ftKB)	Depth	Plug Drilled Out To (ftKB)
Stage Number	Desc	ription		Comment					
Fluid Type	Class	ace Casing Ceme		CEMENT IN PL	ACE @10:00 AM1-	13-2014, HAI	D 40 BBLS CEMEN	T RETUR	RNS TO SURFACE
Lead	TYPEI	Amount (Yield (ft³/sack)	1.20 Volume	Pumped (bbl)	Density (lb/gal)		Fluid Description
Intermediate 1 Casin	31.1.2.3.3.3.3.	ing. 4/28/2014 04		042	1.20	1	16.3	15.60	
Description Intermediate 1 Casing	7 7 7							_	
String		Cem	enting Start Dat	e	Cementing End Date		Wellbore		
Intermediate 1, 5,598,			4/28/	2014	4/28/20	14	Original Hole		
Top Depth (ftKB)	Bottom Depth 75.0	(fiKB) 5,598.0	Top Plug?	N/a	Bottom Plug?	Plug I	Bump Pressure (psi)		t Circulated?
nitial Pump Rate (bbl/min)	Final Pump R		Plug Bump Pres	No ssure (psi)	Yes Pipe Reciprocated?	Topo	1,500 ed Depth (ftKB)		No
	7	7	, lag samp , los	1,500.0	No	ragge	ed Depti (IIAB)	Depth	Plug Drilled Out To (fiKB)
Top Depth (ftKB)	0.0 Bottom Depth	(ftKB) 4,575.0	Top Plug?	Yes	Bottom Plug? No	Plug f	Bump Pressure (psi)	Cemer	t Circulated? Yes
nitial Pump Rate (bbl/min)	Final Pump R	ate (bbl/min)	Plug Bump Pres	ssure (psi)	Pipe Reciprocated?	Tagge	ed Depth (RKB)	Depth	Plug Drilled Out To (ftKB)
Stage Number	Descr 1 Inter	iption mediate 1 Casing		Comment	110				
Fluid Type	Class	Amount (s		Yield (ft³/sack)	Volume	Pumped (bbl)	Density (lb/gal)		Fluid Description
Stage Number	Descri		I	Comment					
		mediate 1 Casing							
Fluid Type	Class	Amount (s	acks)	Yield (ft³/sack)	Volume I	Pumped (bbl)	Density (lb/gal)		Fluid Description
Production Casing Co	ment, Casing,	5/7/2014 06:00							
Description Production Casing Cer	nent								
String		Cem	enting Start Date	The state of the s	Cementing End Date		Wellbore		
PRODUCTION 5.5", 14 op Depth (flkB)	Bottom Depth	/#KB)	5/7/2 Top Plug?		5/7/201 Bottom Plug?		Original Hole	Tà	
op ocpan (lato)	Bollom Bepan	(loss)	Top Flug (Bottom Plug?	Plug E	Bump Pressure (psi)	Cemen	t Circulated?
nitial Pump Rate (bbl/min)	Final Pump Ra	ate (bbl/min)	Plug Bump Pres	sure (psi)	Pipe Reciprocated?	Tagge	d Depth (ftKB)	Depth I	Plug Drilled Out To (ftKB)
tage Number	Descri	ption	C	Comment					
luid Type	Class	Amount (s	acks)	Yield (ft³/sack)	Volume	Pumped (bbl)	Density (lb/gal)	- 1	Fluid Description
TOTAL STATE OF THE	U.S. 100		1		- Signife i	hon (mail	- Delient (military)		

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Environmental Protection



PENS2 Pad Frac - SOG Review

In accordance with WVDEP 35CSR8 Section 5.11, all known shallow oil and gas (SOG) wells have been identified within a 1000' radius of the PENS2 pad. Any SOG well that falls within the Area of Review (AOR) is provided in a list that includes API, Operator, Well Name, Well Number, Current Status, Total Depth, Producing Formation at Total Depth, and Permit Date. See following pages.

The Marcellus Shale of the Pennsboro area is found at an approximate True Vertical Depth (TVD) of 6200'. Although there are a significant number of SOG Communication events in the Pennsboro area (Figure 1), it is highly unlikely that communication will occur with any wells producing from formations shallower than the Benson Sand, found at an approximate TVD of 5000'. This is based on previous experience and study of SOG Communication with Marcellus fracs throughout Ritchie and Doddridge counties. In the Pennsboro area, there are very few producing formations between the Big Injun and the Benson Sand. Most wells are either approximately 2000' or 5000' deep.

The current hypothesis for SOG Communication is that Marcellus frac fluids and pressure intersect and migrate up a nearby fault that acts as a conduit for upward migration and intersection with high permeability reservoirs of the Alexander and Benson. Both of these reservoirs are primarily depleted, allowing an easier pressure migration throughout these formations. Geomechanical data is collected from dipole sonic logs. CONSOL's nearest sonic data is from the PENS1C well (Figure 2), immediately adjacent to the PENS2 pad. Frac modeling (Figure 3) of the Marcellus in the area does not show significant upward frac growth. In fact, typical frac height would need to be more than double to reach the Alexander, approximately 1000' above the Marcellus Shale.

Figure 1. SOG Communication events are represented by red diamonds in conjunction with the PENS1 and PENS2 fracs completed to date.

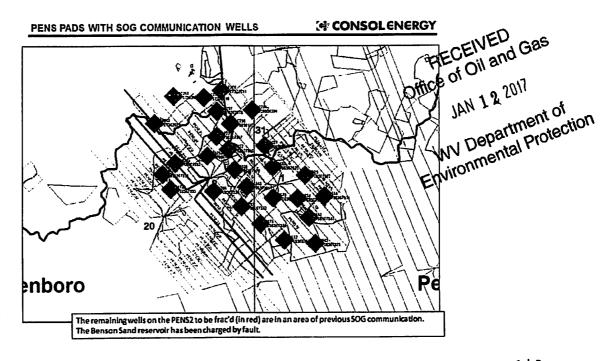


Figure 2. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the PENS1C Stress Profile log.

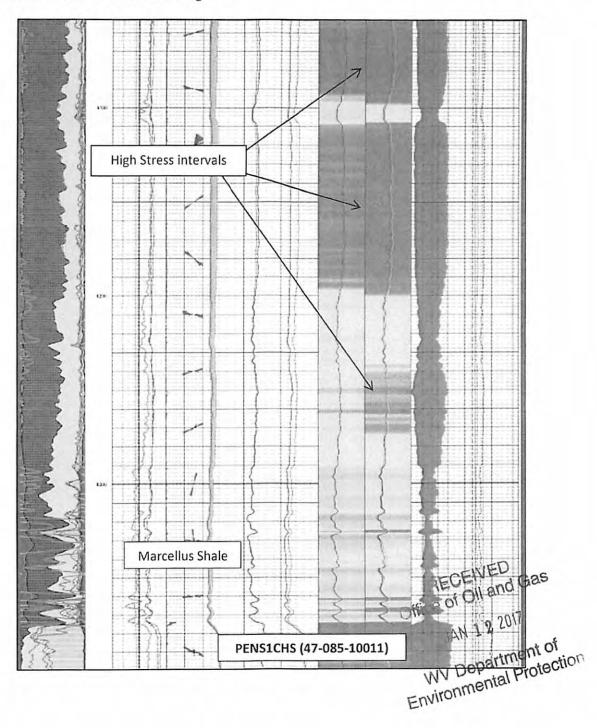
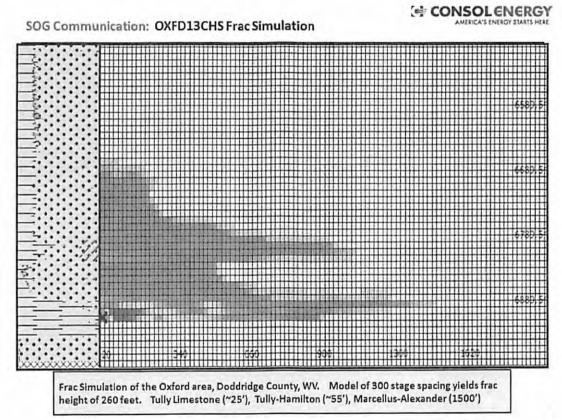


Figure 3. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Marcellus and adjacent shallower shales are lithologically similar to Pennsboro. Frac modeling only yields frac height of approximately 300' and falls far short of the 1000' required to communicate with the Alexander or Benson formations. Therefore, faulting is the primary suspect for upward frac migration.



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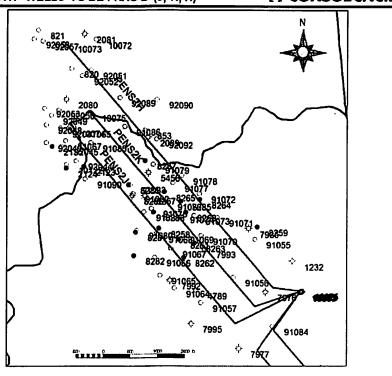
WV Department of Environmental Protection

CONSOLENERGY.

AMERICAS ENERGY STARTS HERE

PENS2 "NORTH" WELLS TO BE FRAC'D (J, K, H)

(⇔ CONSOL ENERGY



API	OPERATOR	WELL NAME	WELL 8	STATUS	то	PRODUCING FORMATION AT TO	PERMIT DATE	STATUS COMMENTS	DISTANCE FROM LATERAL (MAP VIEW)
ny well producing fo	om a formation deeper than 4700' is within	1500 of the Marcellus.						li	
4709510072	CONSOL		PEN2GHS		6217	MARCELLUS	181/2013	PRODUCING MARCELLUS LATERAL, 750' FROM PENS2H	750
4700505456	TRIAD RESOURCES	SMITH EDNA ETAL	HEMSWORTH 4	GAS	5500	ALEXANDER	4/10/1982	PRODUCING	
4700507977	PARGEE EXPLORATION COMPANY	SMITH JOHN A.	JND A SMITH 9	BAS	5453	ALEXANDER	9/25/1990	PRODUCING	
4708507376	PARDEE EXPLORATION COMPANY	SMITH JOHN A	JND A SMITH 8	GAS	5300	ALEXANDER	10/2/1990	PRODUCING	
4707302080	GLASS DEVELOPMENT	SMITH EDNA V.	E. V. SMTH 1	GAS	5234	ALEXANDER	176/1990	ABANDONED WELL	
4700507905	PARDEE EXPLORATION COMPANY	SMITH JOHN A.	L A SMITH 6	GAS	5176	BENSON	10/29/1990	PRODUCING	
								PRODUCING, COMMUNICATED	
4706507992	CONSOL	Simonton #1	11737	6AS	5032	BENSON	10/19/1990	ALREADY	653
4707302081	PARIDEE EXPLORATION COMPANY	JONES MARY E.	JONES 2	BAS	5026	BENSON	12:171330	PRODUCING	
4707302089	CONSOL	Laura Whaley 1	10269	GAS	5015	DENSON		PRODUCING, COMMUNICATED ALPEADY	85
4708507995	CONSOL.	Weekley 81	11748	GAS	5006	BENSON	10/22/1990	PRODUCING, COMMUNICATED ALPEADY	990
4708507993	CONSOL.	Simenton 82	11738	GAS	5005	BENSON	10/19/1990	PRODUCING, COMMUNICATED ALREADY	30
4707300820	EFEC CLROWINGHAM	TULLOS STEPHEN	1	ADDGAS	2705	GORDON	2/14/1980	ABANDONED WELL	
4700508264	GLASS DEVELOPMENT COMPANY	COASTAL LUMBER CO.	H. PYLES 1	CAL	2097	BEG DALLIN	unknown	ADANDONED WELL	
4708508261	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM. SIMONTON 7	COL	1975	BKB DUAN	unknomn	ABANDONED WELL	
4708501232	E C HARTMAN	J Hammond 1		DRY	2361	BIS INJUN	unknown	PLUGGED	
4700500250	GLASS DEVELOPMENT COMPANY	CATIFOLL MIKE	WAL SIMONTON 6	Ott.	1360	BIG INLIN	unknown	ARANDONED WELL	
4700500259	GLASS DEVELOPMENT COMPANY	CATFICILL MIKE	WM. SIMOMITON 5	CIO.	1954	EKG DAJIN	unknown	ABANDONED WELL	
4708508295	GLASS DEVELOPMENT COMPANY	SMITH EDNA	0	25	1952	BEB INJUN	unknown	ABANDONED WELL	L
4708508263	BLASS DEVELOPMENT COMPANY	CARROLL MIKE	WIL SIMONTON 9	COL.	1945	BIG DLUN	unknown	PRODUCING CIL	
4700508297	GLASS DEVELOPMENT COMPANY	SMITH EDNA	0	CX1.	1527	eg man	unknown	ARANDONED WELL	
4700500265	GLASS DEVELOPMENT COMPANY	COASTAL LUMBER CO.	H PYLES 3	CAL	1213	BKG DLAM	unknown	PRODUCING OIL	L
4700500250	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WHL SCHONTON 4	OIL	1300	BEG INJUN	unknown	ABANDONED WELL	
4706508288	BEECHLICK OIL INC	SMITH EDNA	0	COL.	1680	BIG INJUN	unknom	ABANDONED WELL	
4707302124	GLASS DEVELOPMENT	HAMMETT HOMER	M.L. SOPRELL 3	OIL.	1070	EKG INJUN	unknown	ABANDONED WELL	
4707302135	GLASS DEVELOPMENT	McCULLOUGH HEIRS	E. WAGNER G	CRL	1075	BIB INJUN	unknom	ABANDONED WELL.	
4708508262	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM. SIMONTON 8	CML.	1955	BIG INJUN	unknown	ABANDONED WELL	Ļ
4707302123	GLASS DEVELOPMENT	HAMMETT HOMER	M.L. GORRELL 2	OU.	B23	BIS INJUN	unknown	ABANDONED WELL	
4700500202	GLASS DEVELOPMENT COMPANY	FITCHE RODNEY		CIAL.	EB\$0	ee nen	unknown	ARANDONED WELL	
4709509259	GLASS DEVELOPMENT COMPANY	HAMMETT HOMER	M.L. GORRELL 2	GAS	1615	EKE DIJUN	unknown	ABANDONED WELL	
4706508286	BLASS DEVELOPMENT COMPANY	SHITH EDNA	0	COO.	1815	BLE INTO	unknown	PRODUCING CIL.	
4709509291	GLASS DEVELOPMENT COMPANY	RITCHE RODNEY	0	Da.	1780	BIS INJUN	unknown	ABANDONED WELL	
4708508257	GLASS DEVELOPMENT COMPANY	HAMMETT HENER	M. L. GORRELL 1	BAS	175	BIS INJUN	unknown	ABANDONED WELL	
4709504783	KEY OIL	SWITH JOHN A	EDNA SMITH 1	PLG	550		unknomn	PLUGGED	

Pink highlighted wells infer internal monitoring required.

API Number 47	- 85		10007 10	1075
Onerato	r's Well N	^ E	ENIZALIO. M.	15

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name CNX GAS COMPANY LLC OP	Code 494458046
Watershed (HUC 10) Northfork of Hughes River HUC10 / Bonds Creek Quadrangle Ellen	
Do you anticipate using more than 5,000 bbls of water to complete the proposed well w	
Will a pit be used? Yes No V	
If so, please describe anticipated pit waste: N/A	
Will a synthetic liner be used in the pit? Yes No If so, w	hat ml.? N/A
Proposed Disposal Method For Treated Pit Wastes:	hat ml.? N/A
Land Application	~ 9°
Underground Injection (UIC Permit Number	
Off Site Disposal (Supply form WW-9 for disposal location)
Other (Explain N/A Drilling complete.	,
Will closed loop system be used? If so, describe: N/A	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil	based, etc. N/A
-If oil based, what type? Synthetic, petroleum, etc	
Additives to be used in drilling medium? N/A	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A	
-If left in pit and plan to solidify what medium will be used? (cement, lime, sa	wdust)
-Landfill or offsite name/permit number? N/A	
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill concept West Virginia solid waste facility. The notice shall be provided within 24 hours of reject where it was properly disposed.	
I certify that I understand and agree to the terms and conditions of the GENE on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of En provisions of the permit are enforceable by law. Violations of any term or condition law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am fam application form and all attachments thereto and that, based on my inquiry of the obtaining the information, I believe that the information is true, accurate, and compensalties for submitting false information, including the possibility of fine or imprisonn	vironmental Protection. I understand that the of the general permit and/or other applicable illiar with the information submitted on this ose individuals immediately responsible for olete. I am aware that there are significant
Company Official Signature May Vanley	
Company Official (Typed Name) Matt Hanley	
Company Official Title Manager- Permitting	
	cerilian talta asimentula.
Subscribed and sworn before me this 21th day of Dicardic	2016 O 3 2877 Per J Kunan
Micie / Kure	Notary Public, Riv. Configuration Expires Doc 11, 2017
My commission expires 12.11.17	Environimental Protection

Operator's Well No. PEN2AHS KHS

r roposed Revegetation Treatment. Acres Disturt	bed original 11.2, expansion 1.5 Prevegetation pH see attached
Lime see attached Tons/acre or to	correct to pH see attached
Fertilizer type see attached	Ð
Fertilizer amount_see attached	lbs/acre
Mulch see attached	Tons/acre
	Seed Mixtures
Temporary	Permanent
Seed Type lbs/acre see attached	Seed Type lbs/acre see attached
Attach:	
Maps(s) of road, location, pit and proposed area f	for land application (unless engineered plans including this info have been led, include dimensions (L x W x D) of the pit, and dimensions (L x W), and sheet.
Maps(s) of road, location, pit and proposed area for provided). If water from the pit will be land appliacreage, of the land application area. Photocopied section of involved 7.5' topographic	ed, include dimensions (L x W x D) of the pit, and dimensions (L x W), are
Maps(s) of road, location, pit and proposed area a provided). If water from the pit will be land appliacreage, of the land application area. Photocopied section of involved 7.5' topographic Plan Approved by: Site previously built and wells have been drilled built not con	sheet. The pit, and dimensions (L x W x D) of the pit, and dimensions (L x W), and sheet. The pit, and dimensions (L x W), and sheet.
Maps(s) of road, location, pit and proposed area if provided). If water from the pit will be land appliacreage, of the land application area. Photocopied section of involved 7.5' topographic Plan Approved by:	ed, include dimensions (L x W x D) of the pit, and dimensions (L x W), and sheet.





Safety Plan for PEN2 Well Pad

Wells PEN2AHS, PEN2BHS, PEN2HHS, PEN2JHS, PEN2KHS

CNX Gas Company LLC



WV Department of Environmental Protection 02/10/2017

Approval Sheet-PEN2 Well Pad

The Office of Oil and Gas and the Oil and Gas Conservation Commission have set forth minimum requirements for necessary equipment and procedures that must be addressed in a Safety Plan ("Plan") and shall be submitted and approved prior to drilling a deep well. A deep well shall be any well which meets the definition as provided for in Chapter 22C, Article 9 of the West Virginia Code.

A site specific Safety Plan must be submitted with each deep well application or no later than one week prior to spudding. Approved Plans shall be maintained and available at the drilling rig at all times.

The Office of Oil and Gas must approve all changes and modifications to previously approved plans.

This plan has met the requirements of the Policy Statement Deep Well Drilling Procedures and Site Safety Plan Requirements as set forth by:

Date:

West Virginia Divisio	n of Environr	mental Prote	ction, Office of Oil and G	ias
And				
West Virginia Oil and	d Gas Conserv	ation Comm	ission.	
Approved this day _	20+1	of month_	December	, 20 <u></u> /6 by
Michael	1. 1	H	Date: <u>/) - 2</u>	0-16

<u>CNX Gas Company LLC – PEN2 PAD – Water Management Plan</u>

Addendum for Pennsylvania Pits/Impoundments

Statement of Purpose:

This addendum is included to explain the inclusion of several produced water storage facilities in Pennsylvania within this water management plan application.

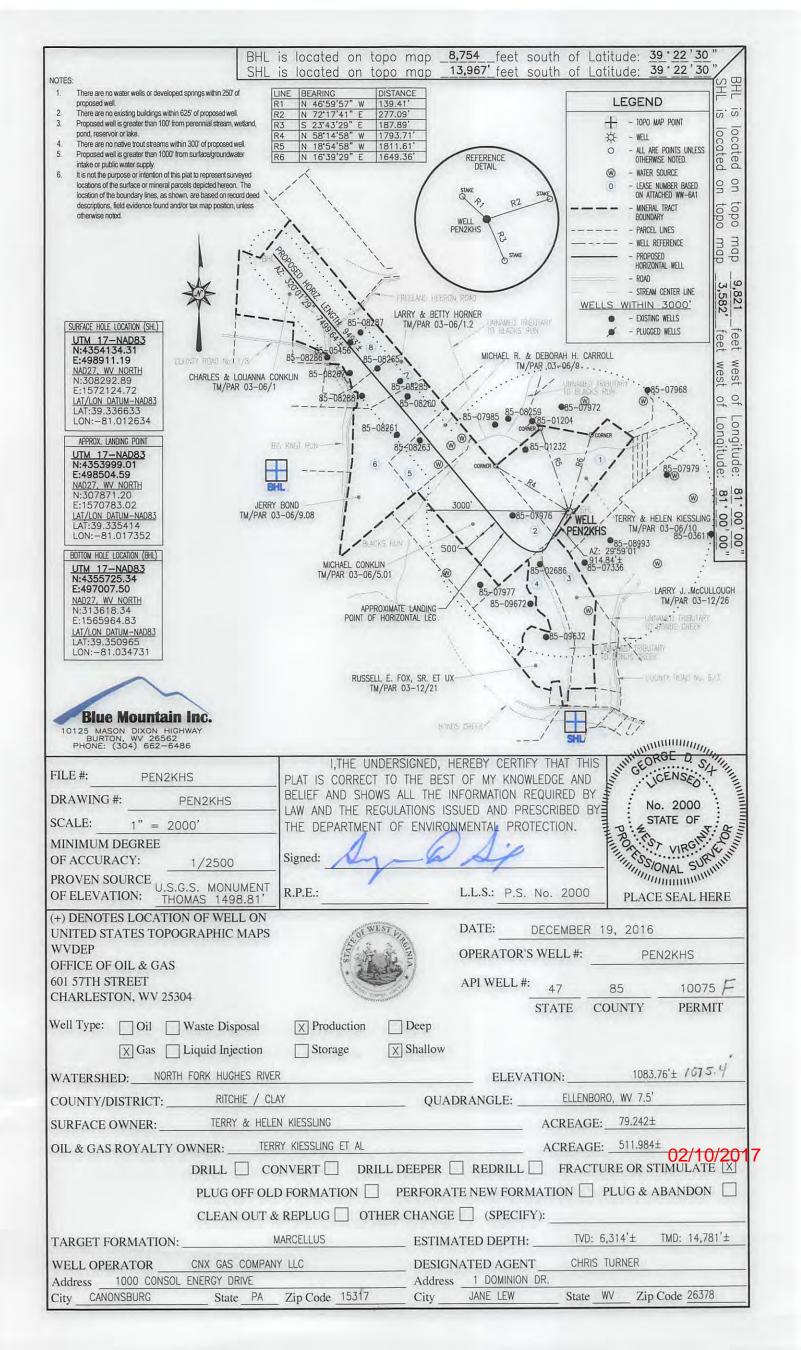
CNX Gas Company LLC (CNX) and its subsidiaries (including CNX Water Assets LLC dba CONVEY Water Systems) own or operate several facilities outside of the state of West Virginia. Some of these facilities are being included as sources within the submitted water management plan in order to preserve the ability to recycle produced fluid stored at these facilities during the PEN2 well completion operations.

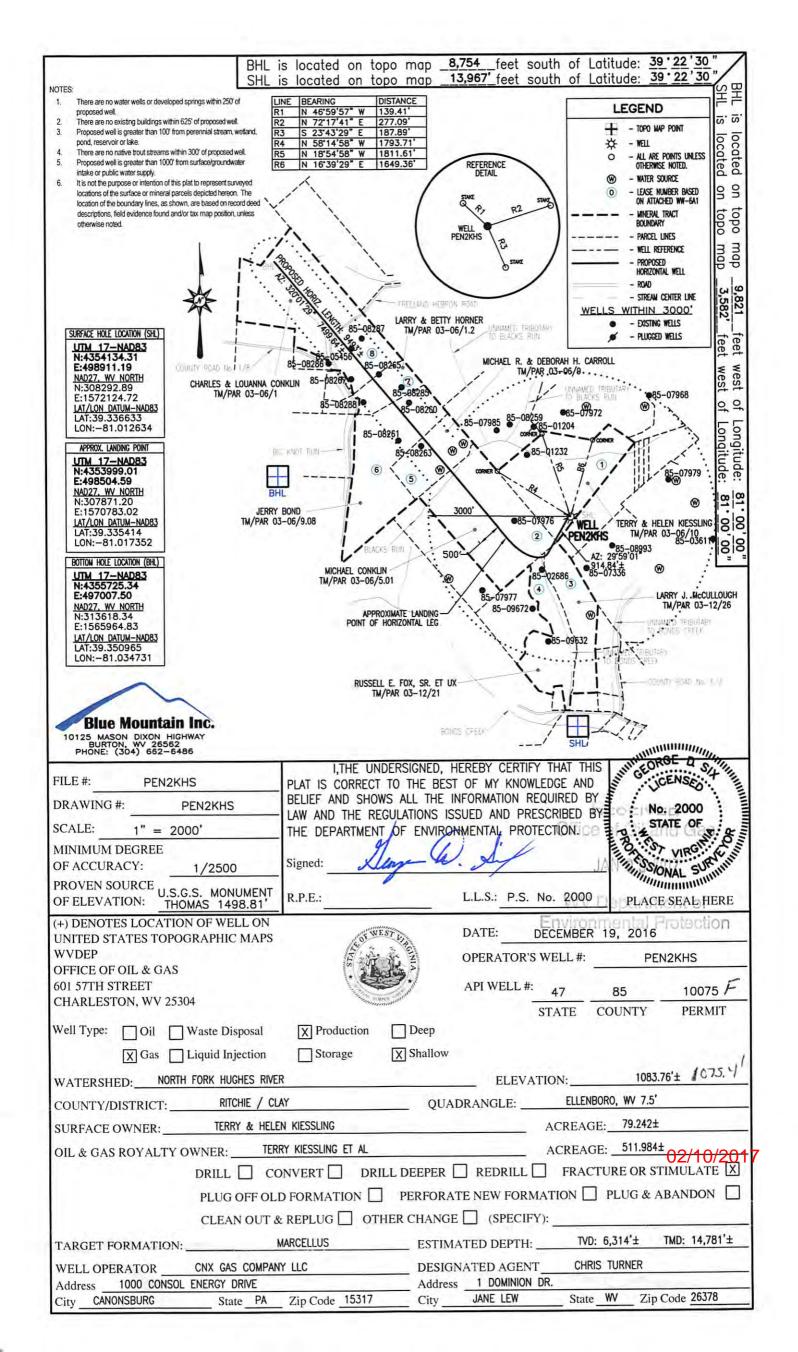
A list of well pads that have supplied water to these facilities has been included as an attachment. All of the water facilities to be utilized are permitted to hold produced fluid consistent with the regulatory obligations in that state.

REGerveb Office of Oil and Gas

JAN 03 2017

WV Department of Environmental Protection





WW-6A1 (5/13)

Operator's	Well No	PEN2KHS	

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

SEE ATTACHED

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

The permit applicant for the proposed well work addressed in this application 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: CNX GAS COMPANY LLC

By:

Its: Manager-Permitting

Page 1 of

ORB 6/589

Merger/Name Change

کل ⁹⁰ /				Attachment - Form WW-6A-1 for PENS2KHS		8
9					্	10 to the state of
\ ∞		<u>Title</u>				1975 1977 1977 1976
		Opinion QLS	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	ij j	- 5 6
Tract ID	<u>Parcel</u>	<u>#</u>	Tauri Marallan and Halan Marallan & Aus Balah Hammand and Blausha		Royalty	Book/Page
1	3-6-10	108743000	Terry Kiessling and Helen Kiessling, h/w; Ralph Hammond and Blanche Hammond, h/w	CNG Development Company	Not less than 1/8	EB 206/138
-	2-0-10	100743000	Evelyn Dodd and Burl Dodd, w/h; Glenn Ross and Irene Ross, h/w; Blaine		Not less than 1/6	LB 206/138
1	3-6-10	108743000	Lamm and Edith Lamm, h/w; Ida Lee Lam	CNG Development Company	Not less than 1/8	LB 206/126
1	3-6-10		Mary Ruth Everhart	CNG Development Company	Not less than 1/8	LB 206/130
1	3-6-10		Louis Walker and Betty Walker, h/w	CNG Development Company	Not less than 1/8	LB206/146
1	3-6-10		Margaret Clark, Attorney in Fact for Monica Smith	CNG Development Company	Not less than 1/8	LB 206/122
1	3-6-10		Edith Hammond	CNG Development Company	Not less than 1/8	LB/206/134
1	3-6-10	108743000	Judith Ann Beary and C. Edward Beary, w/h	CNG Development Company	Not less than 1/8	LB 207/48
			CNG Development Company	CNG Producing Company	Merger	Merger/Consolidation
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger	AIC 58/366 (Harrison County, WV)
			Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621
			Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648
			CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger	MB 6/576
			CONSOL Gas Company	CNX Gas Company, LLC	Merger	MB 6/634
			CNX Gas Company, LLC	Noble Energy, Inc.	50% Assignment	LB 254/811
			Noble Energy, Inc.	CNX Gas Company, LLC	50% Assignment	LB 304/344
	Tax Map &		Country Leaves at a	Cramban Larran ata		
Tract ID	Parcel		Grantor, Lessor, etc	Grantee, Lessee, etc	<u>Royalty</u>	Book/Page
2	3-6-5.1	258031000	Charles W. Conklin Jr. and Louanna B. Conklin, h/w	Antero Resources Appalachian Corporation	Not less than 1/8	LB 262/630
			Antero Resources Appalachian Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	LB 266/686
			Antero Resources Appalachian Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	LB 270/534
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 285/227
2	3-6-5.1	258031000	John A. Smith and Edith Smith, h/w	Noble Energy, Inc.	Not less than 1/8	LB 263/492
2	3-6-5.1	258031000	Clyde & Sarah Mossburg Hopkins, h/w	Noble Energy, Inc.	Not less than 1/8	LB 264/200
2	3-6-5.1	258031000	Ruth Hayhurst Mossburg	Noble Energy, Inc.	Not less than 1/8	LB 264/202
	3-6-5.1	258031000	William Thomas Mossburg	Noble Energy, Inc.	Not less than 1/8	LB 264/196
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 285/227
			Noble Energy, Inc.	CNX Gas Company, LLC	50% Assignment	LB 304/344
	Tax Map &		Grantor, Lessor, etc	Grantee, Lessee, etc		- 1 <i>-</i> -
Tract ID	<u>Parcel</u>				Royalty	Book/Page
3	3-12-26	244549000	Arthur D. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/251
3	3-12-26		Kenneth L. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/254
3	3-12-26	244549000	Gerald S. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/394
3	3-12-26	244549000	Dale Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/385
3	3-12-26	244549000	Haze H. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/388
				DED A4 C-1- I D	Manna Alama Channa	ODD 6/500

BEP Merger Sub, LP

Bluestone Energy Partners

11						
iSL001						ORB 6/589
Ľ			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
20			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change 🕡 -	WV Sec. of State
_			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment 50% Assignment	LB 273/4-15
,;			Antero Resources Corporation	Noble Energy, Inc.		
35			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344°
	Tou Man 0				# S	6 8 5 m
Tract ID	Tax Map &		Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty 3	Book/Page
Tract ID 4	<u>Parcel</u> 3-12-21	244540000	Arthur D. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/251
4	3-12-21		Kenneth L. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/254
4	3-12-21		Gerald S. Hali	Bluestone Energy Partners	Not Less Than 1/8	DB 245/394
4	3-12-21	244549000		Bluestone Energy Partners	Not Less Than 1/8	DB 245/385
4	3-12-21		Haze H. Hall	Bluestone Energy Partners	Not Less Than 1/8	√DB 245/388
-	3-12-21	244343000	Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change	WV Sec. of State
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Noble Lifelby, Inc.	CHA das company LLC	50% Assignment	25 304/344
	Tax Map &		Grantor, Lessor, etc	Grantee, Lessee, etc		
Tract ID	<u>Parcel</u>				<u>Royalty</u>	Book/Page
5,6	3-6-9, 3-6-9.8	256141000	William Simonton and M. Victoria Simonton, h/w	L. J. Murphy	Not less than 1/8	LB 12/273
3,0	3-0-3.6	230141000	L. J. Murphy	Mallory Brothers & Stewart	Assignment	LB 12/274
			E. W. Mallory, Executor of the Estate of J. W. Mallory	L. B. Ekas	Assignment	LB 49/253
			L. B. Ekas and Bertha Ekas, h/w	James Henaghan and E. I. Hanlon	Assignment	LB 49/543
			H. W. Masters, attorney in fact for J. W. Stewart	•		
			and Olive Stewart, husband and wife	James Henaghan and E. I. Hanlon	Assignment	LB 49/561
			James Henaghan and E. I. Hanlon	Henaghan & Hanlon, Inc.	Assignment	LB 50/266
			Henaghan & Hanlon, Inc.	E. I. Hanlon	Assignment	LB 76/264
			E. I. Hanlon	Hanlon Oil Company	Assignment	LB 76/488
			Hanlon Oil Company	Charles E. Reed	Assignment	LB 109/584
				Chief Drilling, Inc., Wilbur Williams,		
			Charles E. Reed	Hi-Lo Investment Company, James		
				M. Burger, and Edwin Morrill (1/8th)	Assignment	LB 109/602
			Chief Drilling, Inc.	Charles E. Reed	Assignment	LB 109/606
			Charles E. Reed	Chief Drilling, Inc.	Assignment	LB 112/105
			Chief Drilling, Inc.	Chester Hilinski	Assignment	DR 158/115
			Chief Drilling, Inc.	Chester Hilinski	Assignment	LR 112/108
			Hi-Lo Investment Company	The Mackenzie Products Company	Assignment	LR 112/623
			Hi-Lo Investment Company	The Mackenzie Products Company	Assignment	LR 112/618
			Chief Drilling, Inc., Wilbur Williams; Mackenzie	Dalah I Hunton		
			Products Company, James M. Burger, Edwin	Raiph J. Hunter	Assissant	LR 112/608
			Morrill, and Chester Hilinski	Big Knot Oil Company, Inc.	Assignment	LR 112/608 LR 112/621
			Ralph J. Hunter	The Glass Development Co., Inc.	Assignment Assignment	LR 112/621 LR 256/781
			Big Knot Oil Company, Inc.	the diass bevelopment co., inc.	Assignment	LR 230//01

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St 001-58			The Glass Development Co., Inc. Noble Energy, Inc.	Noble Energy, Inc. CNX Gas Company LLC	Assignment Assignment	SO UR 271/662 O UR 304/844
Tract II	Tax Map 8 Parcel	<u> </u>	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	S Book/Page
7,8	3-6-1.2, 3-6-1	258019000, 258020000	E. H. Morgan and M. J. Morgan, husband and wife; and J. L. Hemsworth and Mary Hemsworth, husband and wife	South Penn Oil Company	Not less than 1/8	IR 11/157
7,0	3-0-1	230020000	South Penn Oil Company	Henaghan and Hanlon, Inc.	Assignment	ELR 52/371
			Henaghan and Hanlon, Inc.	E. I. Hanlon	Assignment	LR 76/264
			E. I. Hanlon	Hanlon Oil Company	Assignment	LR-76/488
			Hanlon Oil Company	Charles E. Reed	Assignment	/4/109/584
			Charles E. Reed	Chief Drilling, Inc., Wilbur Williams, Hi-Lo Investment Company, James	·	
				M. Burger, and Edwin Morrill (1/8th)	Assignment	LB 109/602
			Chief Drilling, Inc.	Charles E. Reed	Assignment	LB 109/606
			Charles E. Reed	Chief Drilling, Inc.	Assignment	LB 112/105
			Chief Drilling, Inc.	Chester Hilinski	Assignment	DR 158/115
			Chief Drilling, Inc.	Chester Hilinski	Assignment	LR 112/108
			Hi-Lo Investment Company, a partnership, by Stephen J. Deitz, agent and partner	The Mackenzie Products Company	Assignment	LR 112/623
			Hi-Lo Investment Company Chief Drilling, Inc., Wilbur Williams; Mackenzie	The Mackenzie Products Company	Assignment	LR 112/618
			Products Company, James M. Burger, Edwin	Ralph J. Hunter		
			Morrill, and Chester Hilinski		Assignment	LR 112/608
			Ralph J. Hunter	Big Knot Oil Company, Inc.	Assignment	LR 112/621
			Big Knot Oil Company, Inc.	The Glass Development Co., Inc.	Assignment	LR 256/781
			The Glass Development Co., Inc.	Noble Energy, Inc.	Assignment	LR 271/662
			Noble Energy, Inc.	CNX Gas Company LLC	Assignment	LR 304/344



Matthew Hanley Manager – Gas Permitting CONSOL Energy Inc. 1000 CONSOL Energy Drive Canonsburg, PA 15317

Frac

West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304-2345

Road Letter - PENS 2 Well Pad Rework Applications RE:

To Whom It May Concern:

CNX Gas Company LLC 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 need additional information, please do not hesitate to contact me at matthanley@consolenergy.com or 724-485-3011.

Sincerely,

Matthew Hanley

CNX Gas Company LLC

JAN 0 3 2017

WV Department of
Environmental Protest

WW-6AC (1/12)

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

	ce Certification: /- 3 - 17	API No	1. 47- 00 - 10	075
			or's Well No. PEN	2KHS
			ad Name: PEN2	
Notice has	oeen given:			
Pursuant to the	ne provisions in West Virginia Code	§ 22-6A, the Operator has provided the	e required parties v	vith the Notice Forms listed
	tract of land as follows:		14.750 bis	
State:	West Virginia	UTM NAD 83 Easting		
County:	085	Northin		
District:	Clay	Public Road Access:	County Road 6/3	
Quadrangle: Watershed:	Ellenboro Northfork of Hughes River HUC10 / Bonds Cr	Generally used farm nam	e: Keissling	
prescribed by it has provid information i of giving the	the secretary, shall be verified and sed the owners of the surface descriequired by subsections (b) and (c), so surface owner notice of entry to su	every permit application filed under hall contain the following information bed in subdivisions (1), (2) and (4), a ection sixteen of this article; (ii) that the arvey pursuant to subsection (a), section of this article were waived in writing	: (14) A certification (b), see requirement was on ten of this art	on from the operator that (inction ten of this article, the deemed satisfied as a resulticle six-a; or (iii) the notice
of this article	have been completed by the applicant	nt.		
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the require ECK ALL THAT APPLY	perator has attached proof to this Notice d parties with the following:	ce Certification	OOG OFFICE USE
that the Ope	rator has properly served the require		CAUSE NO	OOG OFFICE USE ONLY RECEIVED/ NOT REQUIRED
that the Ope	TATES THAT APPLY FICE OF SEISMIC ACTIVITY or	ed parties with the following: NOTICE NOT REQUIRED BE	CAUSE NO JUCTED	ONLY RECEIVED/
*PLEASE CH 1. NO 2. NO	TATELET THE PROPERTY OF THE PR	In parties with the following: NOTICE NOT REQUIRED BE SEISMIC ACTIVITY WAS COND	CAUSE NO DUCTED S CONDUCTED CAUSE	ONLY RECEIVED/ NOT REQUIRED
*PLEASE CH 1. NO 2. NO	Tator has properly served the require ECK ALL THAT APPLY FICE OF SEISMIC ACTIVITY or FICE OF ENTRY FOR PLAT SURV	d parties with the following: ■ NOTICE NOT REQUIRED BE SEISMIC ACTIVITY WAS COND /EY or ■ NO PLAT SURVEY WAS □ NOTICE NOT REQUIRED BE NOTICE OF ENTRY FOR PLAT S	CAUSE NO DUCTED S CONDUCTED CAUSE URVEY	ONLY RECEIVED/ NOT REQUIRED RECEIVED RECEIVED/
*PLEASE CH 1. NO 2. NO 3. NO	TATELET THE PROPERTY OF THE PR	In NOTICE NOT REQUIRED BE SEISMIC ACTIVITY WAS CONDOWN OF IN NO PLAT SURVEY WAS NOTICE NOT REQUIRED BE NOTICE OF ENTRY FOR PLAT SWAS CONDUCTED OF IN WAITEN WAIVER BY SUR	CAUSE NO DUCTED S CONDUCTED CAUSE URVEY	ONLY RECEIVED/ NOT REQUIRED RECEIVED RECEIVED/
*PLEASE CH 1. NO 2. NO 3. NO	TATOR HAS PROPERLY SERVED THE REQUIRE OF SEISMIC ACTIVITY OF TICE OF ENTRY FOR PLAT SURVICE OF INTENT TO DRILL OF NO DRILL OF	In NOTICE NOT REQUIRED BE SEISMIC ACTIVITY WAS CONDOWN OF IN NO PLAT SURVEY WAS NOTICE NOT REQUIRED BE NOTICE OF ENTRY FOR PLAT SWAS CONDUCTED OF IN WAITEN WAIVER BY SUR	CAUSE NO DUCTED S CONDUCTED CAUSE URVEY	ONLY RECEIVED/ NOT REQUIRED RECEIVED RECEIVED/ NOT REQUIRED

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 3 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.

Its:

Certification of Notice is hereby given:

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

Well Operator: CNX GAS COMPANY LLC

By: Water Van Low

Manager-Permitting

Telephone: 724-485-3011

Address: 1000 Consol Energy Dr.

Canonsburg PA 15317

Facsimile: 724-485-4932

Email: MattHanley@consolenergy.com

COMMON NOTARY SEALS YLVANIA

NOTARIAL SEAL
SHERRI J KURAN
Notary Public
FRANKLIN TWP, GREENE COUNTY
My Commission Expires Dec 11, 2017

Subscribed and sworn, before me this 21 the day of

day of ____

Notary Public

My Commission Expires 12.11

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 deprivacyofficer@wv.gov.

Office in Cal and Gas

JAN 0 3 2017

WV Department of

Environmental Pr

API NO. 47- 085 - 10075 F

OPERATOR WELL NO. PEN2KHS

Well Pad Name: PEN2

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: 1-3-17 Date Permit Application Filed: 1-3-17 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) 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: Terry and Helen Kiessling Name: Address: ____ Address: 8629 Red Maple Dr. Cincinnati, OH 45244 ☐ COAL OPERATOR Name: Name: _____ Address: Address: SURFACE OWNER(s) (Road and/or Other Disturbance) ☑ SURFACE OWNER OF WATER WELL Name: Frank Grass et al Address: 5115 Lansins Dr AND/OR WATER PURVEYOR(s) Charlotte, NC 28270 Name: Terry and Helen Kiessling Address: 8629 Red Maple Dr. Name: Cincinnati, OH 45244 Address: OPERATOR OF ANY NATURAL GAS STORAGE FIELD ☐ SURFACE OWNER(s) (Impoundments or Pits) Name: Address: Name: *Please attach additional forms if necessary 0 3 2017 Address: English Department of

WW-6A (9-13)

API NO. 47- 085	- 10075 F
OPERATOR WELL	
Well Pad Name: PE	N2

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: 1-3-17 Date Permit Application Filed: 1-3-17 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 MAIL RECEIPT OR SIGNATURE CONFIRMATION **SERVICE** 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: _____ Name: Terry and Helen Kiessling Address: 8629 Red Maple Dr. Address: Cincinnati, OH 45244 COAL OPERATOR Name: Name: Address: Address: ☑ SURFACE OWNER(s) (Road and/or Other Disturbance) Name: Frank Grass et al SURFACE OWNER OF WATER WELL Address: 5115 Lansins Dr AND/OR WATER PURVEYOR(s) Charlotte, NC 28270 Name: Scott and Erica Hammond Address: 631 Stone Road Name: _____ Pennsboro WV 26415 Address: **POPERATOR OF ANY NATURAL GAS STORAGE FIELD** ☐ SURFACE OWNER(s) (Impoundments or Pits) Name: Address: Name: ______Address: _____ Name: *Please attach additional forms if necessary

API NO. 47- 085	- 10075 F
OPERATOR WELL	NO. PEN2KHS
Well Pad Name: PE	N2

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: 1-3-17 Date Permit Application Filed: 1-3-17 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: Terry and Helen Kiessling Name: Address: ___ Address: 8629 Red Maple Dr. Cincinnati, OH 45244 COAL OPERATOR Name: Name: Address: Address: SURFACE OWNER(s) (Road and/or Other Disturbance) SURFACE OWNER OF WATER WELL Name: Frank Grass et al AND/OR WATER PURVEYOR(s) Address: 5115 Lansins Dr Name: Larry J McCullough Charlotte, NC 28270 Address: 3694 Bonds Creek road

Pennsboro WV 26415

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

AND 3 2017 Name: Address: ☐ SURFACE OWNER(s) (Impoundments or Pits) Name: Address: *Please attach additional forms if necessary

API NO. 47- 085 - 10075 F	
OPERATOR WELL NO. PEN2KHS	
Well Pad Name: PEN2	

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: 1-3-17 Date Permit Application Filed: 1-3-17 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) □ 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: Terry and Helen Kiessling Name: Address: 8629 Red Maple Dr. Address: ______ Cincinnati, OH 45244 COAL OPERATOR Name: Address: Name: Address: SURFACE OWNER(s) (Road and/or Other Disturbance) Name: Frank Grass et al IJ SURFACE OWNER OF WATER WELL Address: 5115 Lansins Dr AND/OR WATER PURVEYOR(s) Charlotte, NC 28270 Name: Edward and Cheryl Haas Address: 1060 Blacks Run Name: Pennsboro WV 26415 Address: **PROPERATOR OF ANY NATURAL GAS STORAGE FIELD** ☐ SURFACE OWNER(s) (Impoundments or Pits) Name: _____Address: _____

*Please attach additional forms if necessary:

**Please attach additional forms if necessary:

**Pl Name: Name: Address:

WW-6A
(8-13)

API NO. 47- 085 - 10075	F
OPERATOR WELL NO.	PEN2KHS
Well Pad Name: PEN2	

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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within 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 of 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 of S 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 freshs

- 10075 F API NO. 47-085 OPERATOR WELL NO. PEN2KHS Well Pad Name: PEN2

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 Office of the and Gas 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 57th St. SE Charleston, WV 25304 (304) 926-0450

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.

Well Pad Name: PEN2

<u>Time Limits and Methods for Filing Comments.</u>

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 http://www.dep.wv.gov/oil-and-gas/Horizontal- Permits/Pages/default.aspx 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

- (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.



WW-6A (8-13)

API NO. 47-085 - 10075 F OPERATOR WELL NO. PEN2KHS Well Pad Name: PEN2

Notice is hereby given by:

Well Operator: CNX GAS COMPANY LLC

Telephone: 724-485-3011

Email: MATTHANLEY@CONSOLENERGY.COM

Address: 1000 Consol Energy Drive, Canonsburg PA 15317

Facsimile: 724-485-4932

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.

COMMONWEALTH OF PENNSYLVANIA

Hotary Public FRANKLIN TWP., GREENE COUNTY My Commission Expires Dec 11, 2017

day of Schully 2011 Subscribed and sworn before me this 21 Notary Public

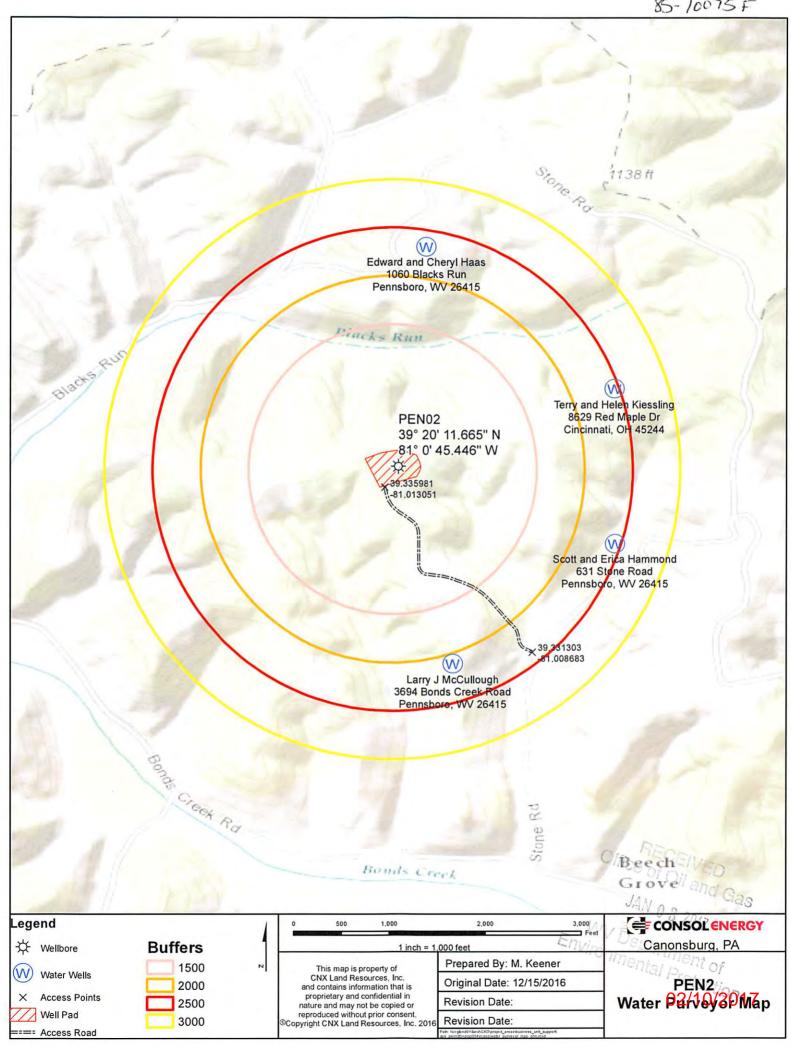
My Commission Expires

Office of Oil and Gas

JAN 0 3 2017

Environmental Protection

02/10/2



WW-6A5 (1/12)

Operator	Well No.	PEN2KHS	
Operator	*** 011 1 10.		

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

Notice Time I Date of Notic	Requirement: notice shall be provided no later e: Date Permit Applica		date of permit	application.
Delivery met	hod pursuant to West Virginia Code § 22-6A	-16(c)		
	FIED MAIL HAN EN RECEIPT REQUESTED DEL	ND LIVERY		
return receipt the planned o required to be drilling of a h damages to th	7. Va. Code § 22-6A-16(c), no later than the corequested or hand delivery, give the surface own peration. The notice required by this subsect provided by subsection (b), section ten of this provided well; and (3) A proposed surface us the surface affected by oil and gas operations to the section shall be given to the section shall be given to the section.	vner whose land tion shall inclu- article to a surf se and compens he extent the da	I will be used for de: (1) A copy ace owner whos sation agreemen amages are comp	or the drilling of a horizontal well notice of of this code section; (2) The information be land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter.
	Red Maple Drive	Name: Addres	Frank Grass 5: 5115 Lansins Drive , NC 28270	
Notice is here Pursuant to W operation on State:	eby given: est Virginia Code § 22-6A-16(c), notice is here the surface owner's land for the purpose of drill West Virginia	ling a horizonta	l well on the tra	well operator has developed a planned ct of land as follows:
County:	085	UTM NAD 8	Northing:	4354126.437
District:	Clay	Public Road	_	County Road 6/3
Quadrangle:	Pennsboro	Generally use	ed farm name:	Keissling
Watershed:	Northfork of Hughes River HUC10 / Bonds Creek			
to be provide horizontal we surface affect information re	Vest Virginia Code § 22-6A-16(c), this notice slip d by W. Va. Code § 22-6A-10(b) to a surface ll; and (3) A proposed surface use and compened by oil and gas operations to the extent the elated to horizontal drilling may be obtained a located at 601 57th Street, SE, Charleston.	e owner whose sation agreeme damages are co from the Secre	e land will be unt containing and ompensable und tary, at the WV	used in conjunction with the drilling of a n offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection
Well Operator	": CNX GAS COMPANY II C	Address:	1000 Consol Energy	v Dr.
-			Canonsburg PA 153	
-		Facsimile:		
Well Operator Telephone: Email: Oil and Gas	r: CNX GAS COMPANY LLC 724-485-3011 MattHanley@consolenergy.com Privacy Notice: Oil and Gas processes your personal information		724-485-4932	317

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.

JAN 0 3 2017

Environment of

02/10/2017



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

January 5, 2017

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

Subject: DOH Permit for the Pens-2 Well Site, Ritchie County

AHS Well Site Bl

BHS Well Site

HHS well Site

JHS Well Site

KHS Well Site

Dear Mr. Martin,

Earl Ray Tomblin

Governor

The West Virginia Division of Highways has transferred Permit #03-2013-0290 for the subject site to CNX Gas Company LLC for access to the State Road for the well site located off of Ritchie County Route 6/3 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,

Gary K. Clayton 2017 Regional Maintenance Enginee

Central Office Oil & Gartine WV Departmental Programmental Programmental

Cc: Matt Hanley

CNX Energy LLC. CH, OM, D-3

File

02/10/2017



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

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Very Truly Yours,

Gary K. Clayton Regional Maintenance Engineer

Central Office Oil &Gas Coordinator

Cc: Matt Hanley

CNX Energy LLC. CH, OM, D-3

File

Section V – Proposed Additives to be used in Fracturing or Stimulations

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

Type: Copolymer of Two Propenamide CAS: 69418-26-4

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

Type: Diethylene glycol mono n-butyl ether CAS: 112-34-5

Type: Oleic acid diethanolamide CAS: 93-83-4

Type: Alcohols, C12-16, ethoxylated CAS: 68551-12-2

Type: Quaternary ammonium compound CAS: 68424-85-1

Type: Ammonium chloride CAS: 12125-02-9

Type: Short chained glycol ether CAS: 112-34-5

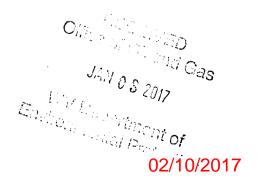
Type: Ethoxylated (C10-16) alcohols CAS: 68002-97-1

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

Type: Thiourea CAS: 62-56-6

Type: Acetophenone CAS: 98-86-2











CNX GAS COMPANY, LLC 200 EVERGREENE DRIVE WAYNESBURG, PA 15370

PENNSBORO 2 WELL SITE

PAD EXPANSION

WELL SITE LOCATION

NAD 83 - LAT: N 39° 20' II.70": LONG: W 81° 00' 44.95" NAD 27 - LAT: N 39° 20' II.42"; LONG: W 81° 00' 45.55" UTM (METER) - N: 4354137.438'; E: 498938.427'

ENTRANCE LOCATION

NAD 83 - LAT: N 39° 19' 53.06": LONG: W 80° 18' 34.45" NAD 27 - LAT: N 39° 19' 52.74"; LONG: W 80° 18' 35.13" UTM (METERS) - N: 4353791.241'; E: 559522.278'

CLAY DISTRICT. RITCHIE COUNTY, WEST VIRGINIA DATE: DECEMBER 15, 2016



10125 Mason Dixon Hwy. Burton, WV 26562-9656 Engineers and Land Surveyors (304) 662-6486



NOTE: DRAWING WAS CREATED ON 22x34 PAPER. 11x17 DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING



LOCATION MAP PROSPERITY PA 7.5M USGS QUASMANNE SCALE F=2000

ENVIRONMENTAL NOTES

A WETLAND DELINEATION WAS PERFORMED ON FEBRUARY 28 & MARCH I, 2013 BY ARM GROUP INC. TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE MAY 2, 2013 REPORT FOR THE PENNS 2 WELL SITE, WHICH WAS PREPARED BY ARM GROUP INC. SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE REPORT DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR WVDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN CONFIRMATION OF THE DELINEATION DESCRIBED BY THE REPORT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

GEOTECHNICAL NOTES

THIS DESIGN WAS PERFORMED WITHOUT A GEOTECHNICAL INVESTIGATION; THEREFORE, BLUE MOUNTAIN INC. SHALL ASSUME NO RESPONSIBILITY FOR ANY UNFORESEEN SITE CONDITIONS DURING OR AFTER CONSTRUCTION, INCLUDING ANY POTENTIAL SLOPE OR EMBANKMENT FAILURES DUE TO A SURCHARGE LOAD OR OTHER CAUSES.

RESTRICTIONS

- I. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300' OF THE PAD & LOD.
- 2. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000' OF THE PAD AND LOD
- 3. THERE ARE NO EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF THE WELLS BEING DRILLED.
- 4. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625' OF THE CENTER OF THE PAD. 5. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE
- FEET WITHIN 625' OF THE CENTER OF THE PAD
- 6. THERE ARE NO PERENNIAL STREAMS, LAKES, PONDS OR RESERVOIRS WITHIN IDD' OF THE PROPOSED LIMITS OF DISTURBANCE.

I DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE EROSION AND SEDIMENT CONTROL PLAN AND SITE RESTORATION PLAN AND POST CONSTRUCTION BMPs ARE TRUE AND CORRECT, REPRESNY ACTUAL FIELD CONDITIONS AND ARE IN ACCORDANCE WITH THE 25 PA. CODE CHAPTERS 78 AND 102 OF THE DEPARTMENT'S RULES AND REGULATIONS. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

	1-3-6		
NATURE:	1	DATE:	12/0

Blue Mountain In

ENE DRIVE PA 15370 CNX GAS (200 EVER WAYNESBL

PENNS-2 PAD EXPANSION COVER SHEET CINTGAS



16852 STATE OF

BY LUF	
ES 87. JND	
12/15/2016	
AS DICHN	
	87 LLF (0 87: JND (1/6/204 A\$ SHOWN

RAWING NAME PENNS-I PAD EXP

SHEET NO I



PROPERTY OWNERS

I.FRANK GRASS, MARY ADKINS, & ANNE ABBINGTON 03-06-21 2. TERRY & HELEN KIESSLING 03-06-10.1, 03-06-10

SITE LOCATION

HEADING NORTH ON ROUTE 74 OUT OF PENNSBORD, TRAVEL APPROXIMATELY 2.73 MILES TO TURN LEFT ON ROUTE 6. TRAVEL APPROXIMATELY 3.47 MILES WEST, UNTIL YOU REACH ROUTE 6/3 ON THE RIGHT. TRAVEL APPROXIMATLEY .5 MILES UNTIL YOU SEE THE ENTRANCE OF THE SITE ON YOUR LEFT.

NOTE

ENTRANCE PERMIT, FLOODPLAIN DETAILS, AND MISS UTILITY INFORMATION CAN ALL BE OBTAINED FROM THE ORIGINAL PENNSBORO 2 WELL PAD PERMIT.

SHEET INDEX		
DRAWING NUMBER	DRAWING NAME	
1	COVER SHEET	
2	GENERAL NOTES (I OF 2)	
3	GENERAL NOTES (2 OF 2)	
4	EXISTING CONDITIONS	
5	OVERALL SITE PLAN	
6	OVERALL SITE PLAN W/ ORTHO	
7	X-SECTIONS	
8	RECLAMATION	
9	CONSTRUCTION DETAILS (I OF 4)	
10	CONSTRUCTION DETAILS (2 OF 4)	
Ш	CONSTRUCTION DETAILS (3 OF 4)	
12	CONSTRUCTION DETAILS (4 OF 4)	
13	MATERIAL QUANTITIES	

