



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
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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 PEN2JHS
47-085-10074-00-00

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
Chief

Operator's Well Number: PEN2JHS
Farm Name: KIESSLING, TERRY & HELEN
U.S. WELL NUMBER: 47-085-10074-00-00
Horizontal 6A / Re-Work
Date Issued: 2/8/2017

Promoting a healthy environment.

02/10/2017

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.

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

1) Well Operator: CNX GAS COMPANY LLC

<u>494458046</u>	<u>085</u>	<u>Clay</u>	<u>Ellenboro</u>
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Operator ID County District Quadrangle

2) Operator's Well Number: PEN2JHS Well Pad Name: PEN2

3) Farm Name/Surface Owner: Kiessling Public Road Access: County Road 6/3

4) Elevation, current ground: 1075.4 Elevation, proposed post-construction: 1075.4

5) Well Type (a) Gas Oil Underground Storage
Other

(b) If Gas Shallow Deep
Horizontal

Michael Holt
12-30-16

6) Existing Pad: Yes or No yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Marcellus, Depth 6262'-6324, Thickness 62", Pressure 4174#psi

8) Proposed Total Vertical Depth: 6314'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 15012'

11) Proposed Horizontal Leg Length: 10,192

12) Approximate Fresh Water Strata Depths: 454

13) Method to Determine Fresh Water Depths: Closest well and Seneca Technology database

14) Approximate Saltwater Depths: 1244'

15) Approximate Coal Seam Depths: No Coal

16) Approximate Depth to Possible Void (coal mine, karst, other): none

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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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							
Intermediate	9 5/8"	N	HCK-55 BTC	36.0	5410'	5410'	CTS
Production	5 1/2"	N	HCP-110 TXP BTC	20.0	15012'	15012'	14.8 ppg Class A tail slurry to intermediate
Tubing							
Liners							

Existing

Existing

TYPE	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							
Liners							

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PACKERS

Kind:				
Sizes:				
Depths Set:				

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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

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

22) Area to be disturbed for well pad only, less access road (acres): 1.5

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:

PREVIOUSLY 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 casing is at setting depth, the well is circulated a minimum of one hole volume prior to pumping cement. Production - the hole is drilled with synthetic oil base mud and once at TD the hole is circulated at a drilling pump rate for at least three hours. Once the torque and drag trends indicate the hole is clean and drilling BHA is pulled 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.

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.

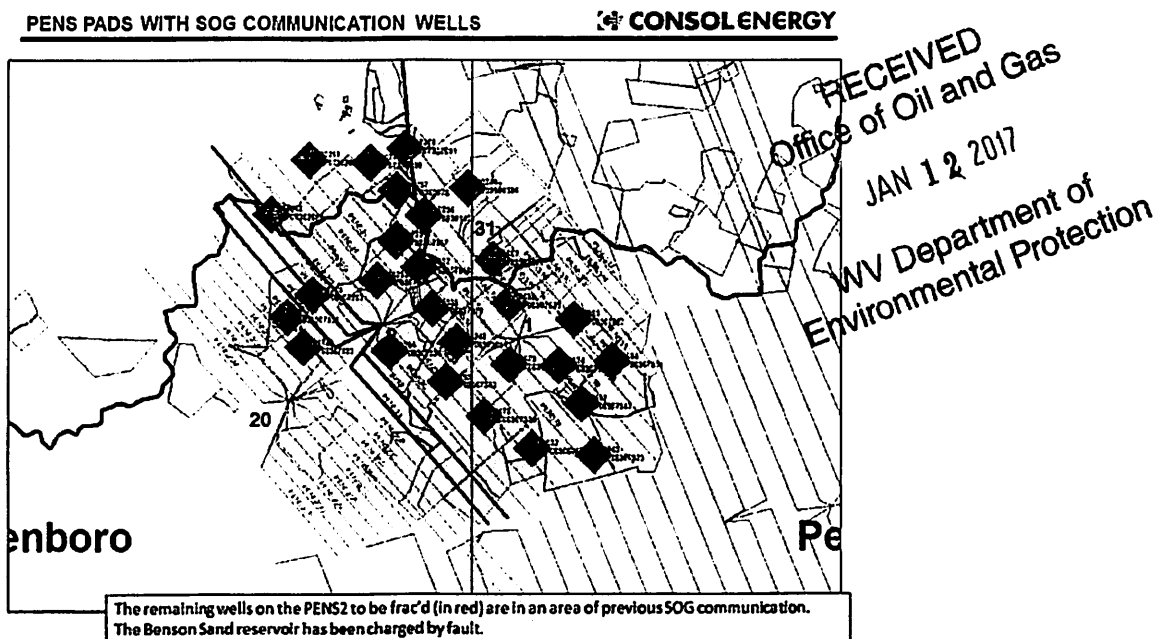
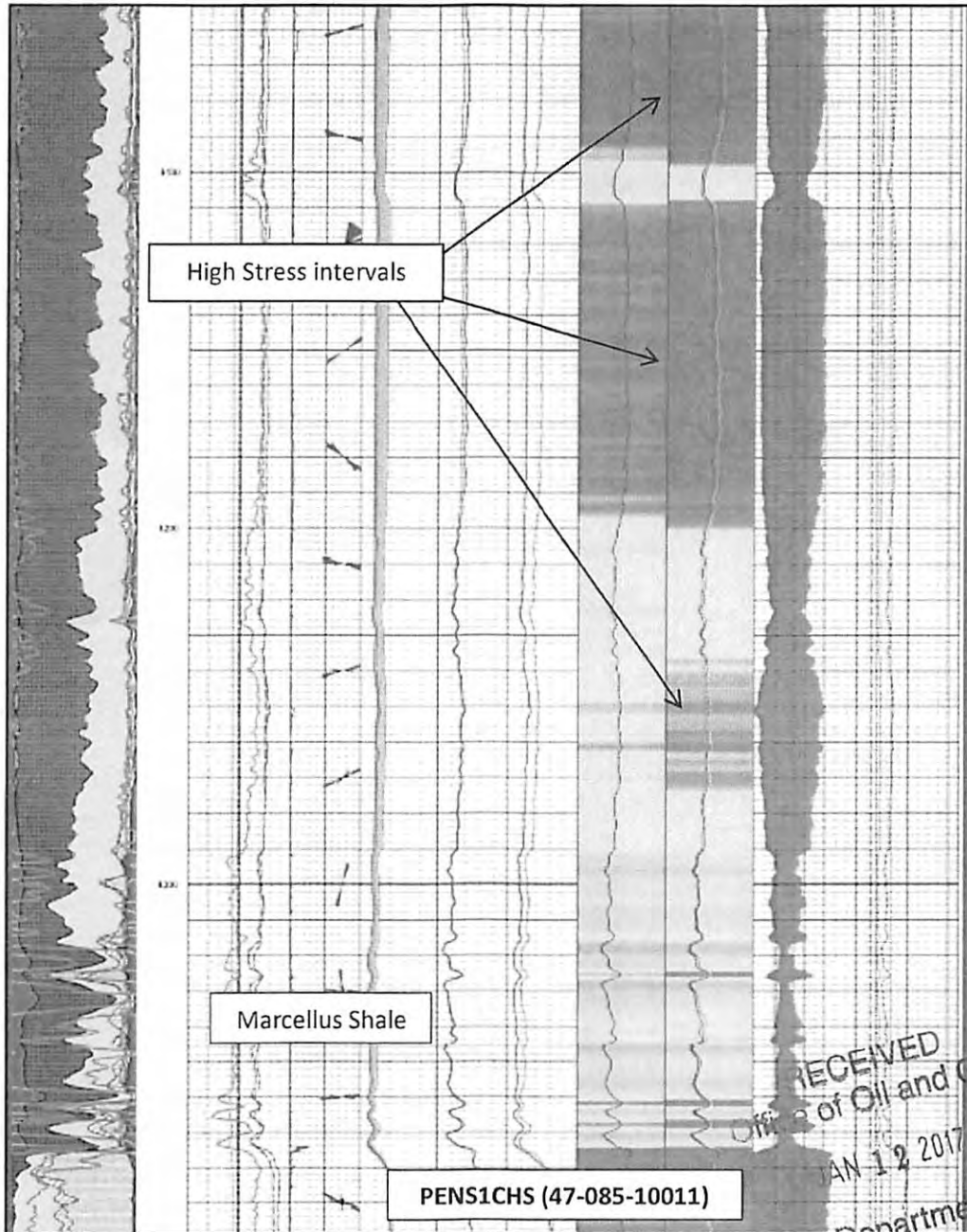


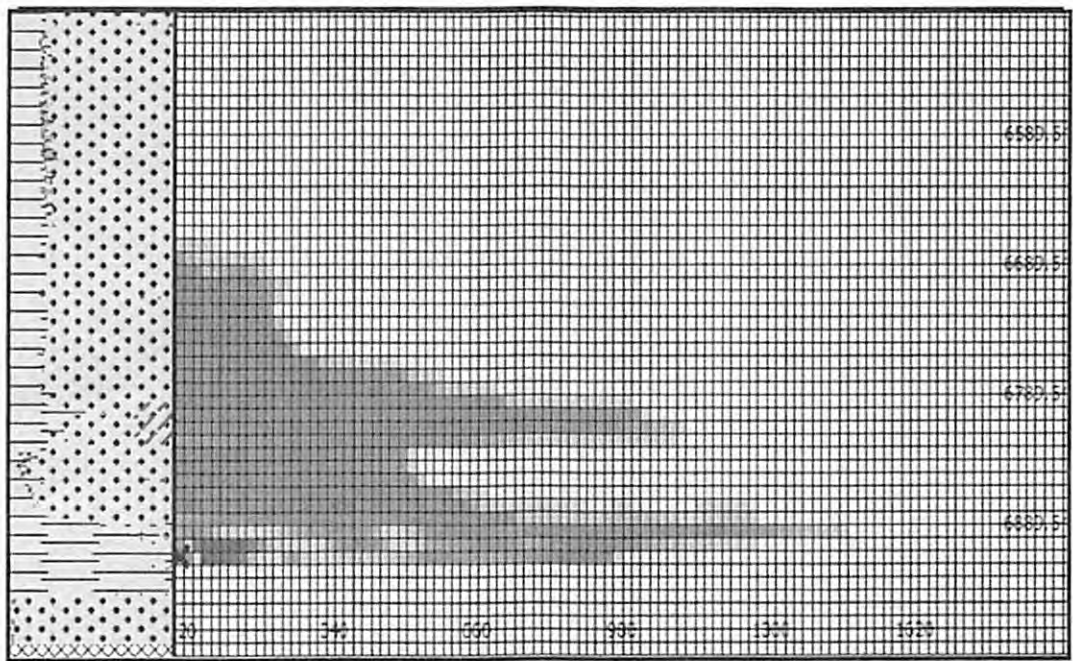
Figure 2. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the PENS1C Stress Profile log.



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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.

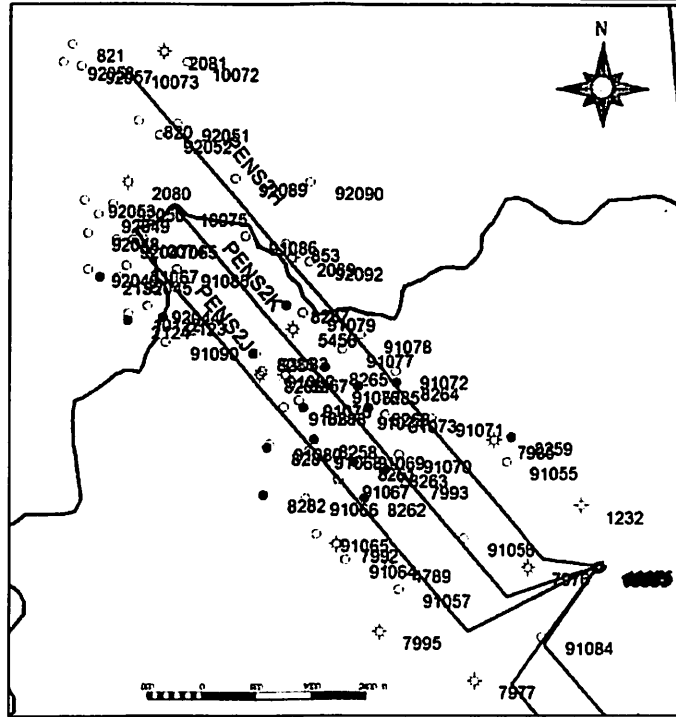
SOG Communication: OXFD13CHS Frac Simulation



Frac Simulation of the Oxford area, Doddridge County, WV. Model of 300 stage spacing yields frac height of 260 feet. Tully Limestone (~25'), Tully-Hamilton (~55'), Marcellus-Alexander (1500')

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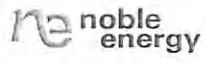
PENS2 "NORTH" WELLS TO BE FRAC'D (J, K, H)



API	OPERATOR	WELL NAME	WELL #	STATUS	TD	PRODUCING FORMATION AT TD	PERM-IT DATE	STATUS COMMENTS	DISTANCE FROM LATERAL (MAP VIEW)
Any well producing from a formation deeper than 4700' is within 500' of the Marcellus.									
470510072	CONSOL		PENS2HS		6217	MARCELLUS	11/7/2013	PRODUCING MARCELLUS LATERAL, 750' FROM PENS2H	750
470525456	TRIAD RESOURCES	SMITH EDNA ETAL	HEMSWORTH 4	GAS	5500	ALEXANDER	4/12/2002	PRODUCING	
470527377	PARDEE EXPLORATION COMPANY	SMITH JOHN A.	JNO A SMITH 9	GAS	5453	ALEXANDER	3/25/2000	PRODUCING	
470527376	PARDEE EXPLORATION COMPANY	SMITH JOHN A.	JNO A SMITH 8	GAS	5300	ALEXANDER	10/2/2000	PRODUCING	
4707320280	GLASS DEVELOPMENT	SMITH EDNA V.	E. V. SMITH 1	GAS	5234	ALEXANDER	1/19/2000	ABANDONED WELL	
470527395	PARDEE EXPLORATION COMPANY	SMITH JOHN A.	J. A. SMITH 6	GAS	5176	BERNSON	10/29/2000	PRODUCING	
470527392	CONSOL	Simonton #1	11737	GAS	5032	BERNSON	10/19/2000	PRODUCING, COMMUNICATED ALREADY	553
4707320281	PARDEE EXPLORATION COMPANY	JONES MARY E.	JONES 2	GAS	5026	BERNSON	12/9/2000	PRODUCING	
4707320289	CONSOL	Laura Whaley 1	10289	GAS	5016	BERNSON		PRODUCING, COMMUNICATED ALREADY	85
470527395	CONSOL	Weekley #1	11748	GAS	5006	BERNSON	10/22/2000	PRODUCING, COMMUNICATED ALREADY	290
470527393	CONSOL	Simonton #2	11728	GAS	5005	BERNSON	10/19/2000	PRODUCING, COMMUNICATED ALREADY	30
4707320282	ERIC CUNNINGHAM	TULLOS STEPHEN	1	ABOGAS	2705	GORCON	2/14/2000	ABANDONED WELL	
470528254	GLASS DEVELOPMENT COMPANY	COASTAL LUMBER CO.	H. PYLES 1	OIL	2097	BIG DAWG	unknown	ABANDONED WELL	
470528251	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM SIMONTON 7	OIL	1975	BIG DAWG	unknown	ABANDONED WELL	
470527232	E C HARTMAN	J Hammond 1		DRY	1966	BIG DAWG	unknown	PLUGGED	
470528250	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM SIMONTON 6	OIL	1960	BIG DAWG	unknown	ABANDONED WELL	
470528253	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM SIMONTON 5	OIL	1954	BIG DAWG	unknown	ABANDONED WELL	
470528255	GLASS DEVELOPMENT COMPANY	SMITH EDNA	0	OIL	1952	BIG DAWG	unknown	ABANDONED WELL	
470528257	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM SIMONTON 9	OIL	1948	BIG DAWG	unknown	PRODUCING OIL	
470528255	GLASS DEVELOPMENT COMPANY	SMITH EDNA	0	OIL	1927	BIG DAWG	unknown	ABANDONED WELL	
470528255	GLASS DEVELOPMENT COMPANY	COASTAL LUMBER CO.	H. PYLES 3	OIL	1910	BIG DAWG	unknown	PRODUCING OIL	
470528258	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM SIMONTON 4	OIL	1900	BIG DAWG	unknown	ABANDONED WELL	
470528258	BEECHLICK OIL DAC	SMITH EDNA	0	OIL	1890	BIG DAWG	unknown	ABANDONED WELL	
4707322324	GLASS DEVELOPMENT	HAMMETT HOMER	M. L. GORFELL 3	OIL	1878	BIG DAWG	unknown	ABANDONED WELL	
4707322325	GLASS DEVELOPMENT	MCCULLOUGH HELEN	E. WAGNER 8	OIL	1875	BIG DAWG	unknown	ABANDONED WELL	
470528252	GLASS DEVELOPMENT COMPANY	CARROLL MIKE	WM SIMONTON 8	OIL	1855	BIG DAWG	unknown	ABANDONED WELL	
4707322323	GLASS DEVELOPMENT	HAMMETT HOMER	M. L. GORFELL 2	OIL	1823	BIG DAWG	unknown	ABANDONED WELL	
470528202	GLASS DEVELOPMENT COMPANY	RITCHE RODNEY	0	OIL	1820	BIG DAWG	unknown	ABANDONED WELL	
470528256	GLASS DEVELOPMENT COMPANY	HAMMETT HOMER	M. L. GORFELL 2	GAS	1819	BIG DAWG	unknown	ABANDONED WELL	
470528256	GLASS DEVELOPMENT COMPANY	SMITH EDNA	0	OIL	1816	BIG DAWG	unknown	PRODUCING OIL	
470528257	GLASS DEVELOPMENT COMPANY	RITCHE RODNEY	0	OIL	1790	BIG DAWG	unknown	ABANDONED WELL	
470528257	GLASS DEVELOPMENT COMPANY	HAMMETT HOMER	M. L. GORFELL 1	GAS	1715	BIG DAWG	unknown	ABANDONED WELL	
470524783	KEY OIL	SMITH JOHN A.	EDNA SMITH 1	PLG	550		unknown	PLUGGED	

Pink highlighted wells infer internal monitoring required.

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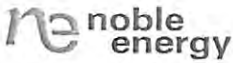
Casing Summary

Well Name: PEN-2J-HS

Conductor, 40.0ftKB												
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers		
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)	
1	Casing Joints	20	19.124	94.00	J-55		0.0	40.0	40.00		520.0	
Surface, 598.7ftKB												
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers		
13	Casing Joints	13 3/8	12.615	54.50	J-55	Buttress Thread	0.1	553.4	553.35		1,130.0	
1	Float Collar	13 3/8	12.615	54.50	J-55	Buttress Thread	553.4	554.6	1.15		1,130.0	
1	Casing Joints	13 3/8	12.615	54.50	J-55	Buttress Thread	554.6	597.2	42.65		1,130.0	
1	Float Shoe	13 3/8	12.615	54.50	J-55	Buttress Thread	597.2	598.7	1.50			
Intermediate 1, 5,794.0ftKB												
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers		
0	Landing Joint	9 5/8	8.921	36.00	HCK-55	BUTTRESS	0.0	0.0	0.00		2,020.0	
0	Hanger	9 5/8	8.921	36.00	HCK-55	BUTTRESS	0.0	0.0	0.00		2,020.0	
0	Casing Joints	9 5/8	8.921	36.00	HCK-55	BUTTRESS	0.0	0.0	0.00		2,020.0	
1	Landing JT.	9 5/8	8.921	36.00	HCK-55	BUTTRESS	0.0	27.4	27.40		2,020.0	
1	Hanger	9 5/8	8.921	36.00	HCK-55	BUTTRESS	27.4	29.3	1.85		2,020.0	
13	Casing Joints	9 5/8	8.921	36.00	HCK-55	BUTTRESS	29.3	5,707.9	5,678.66		2,020.0	
1	FLOAT COLLAR	9 5/8	8.921	36.00	HCK-55	BUTTRESS	5,707.9	5,709.0	1.10		2,020.0	
2	Casing Joints	9 5/8	8.921	36.00	HCK-55	BUTTRESS	5,709.0	5,792.6	83.57		2,020.0	
1	FLOAT SHOE	9 5/8	8.921	36.00	HCK-55	BUTTRESS	5,792.6	5,794.0	1.40		2,020.0	
PRODUCTION 5.5", 14,787.2ftKB												
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers		
0	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	0.0	0.0	0.00		11,100.0	
1	LANDING JT	5 1/2	4.778	20.00	P-110	Buttress Thread	0.0	26.5	26.50		11,100.0	
1	HANGER	5 1/2	4.778	20.00	P-110	Buttress Thread	26.5	32.3	5.85		11,100.0	
15	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	32.3	6,259.4	6,227.14		11,100.0	
1	MARKER JT.	5 1/2	4.778	20.00	P-110	Buttress Thread	6,259.4	6,279.6	20.17		11,100.0	
30	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	6,279.6	7,491.4	1,211.82		11,100.0	
1	MARKER JT.	5 1/2	4.778	20.00	P-110	Buttress Thread	7,491.4	7,509.7	18.31		11,100.0	
55	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	7,509.7	9,768.3	2,258.53		11,100.0	
1	MARKER JT.	5 1/2	4.778	20.00	P-110	Buttress Thread	9,768.3	9,789.5	21.19		11,100.0	
62	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	9,789.5	12,320.4	2,530.92		11,100.0	
1	MARKER JT.	5 1/2	4.778	20.00	P-110	Buttress Thread	12,320.4	12,341.6	21.25		11,100.0	
57	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	12,341.6	14,661.9	2,320.30		11,100.0	
1	ORIO VALUE	5 1/2	4.778	20.00	P-110	Buttress Thread	14,661.9	14,665.4	3.50		11,100.0	
1	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	14,665.4	14,705.4	39.95		11,100.0	
1	FLOAT	5 1/2	4.778	20.00	P-110	Buttress Thread	14,705.4	14,706.5	1.15		11,100.0	
2	Casing Joints	5 1/2	4.778	20.00	P-110	Buttress Thread	14,706.5	14,785.8	79.27		11,100.0	
1	FLOAT SHOE	5 1/2	4.778	20.00	P-110	Buttress Thread	14,785.8	14,787.2	1.40		11,100.0	

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12-02-16
02/10/2017

85-10074



Cement Summary

Well Name: PEN-2J-HS

Report Date: 12/6/2016

API 47-085-10074	Surface Legal Location	Regulatory Field	County/Parish RITCHIE	State/Province WEST VIRGINIA	Well Configuration Type HORIZONTAL
Ground Elevation (ft) 1,084	Casing Flange Elevation (ft) 1,083.25	KB - GL / MSL (ftKB) 25.50	KB-Casing Flange Distance (ft) 26.25	Spud Date 1/13/2014 17:30	Rig Release Date 5/24/2014 18:00

Surface Casing Cement, Casing, 1/14/2014 16:50

Description Surface Casing Cement							
String Surface, 598.7ftKB		Cementing Start Date 1/14/2014		Cementing End Date 1/14/2014		Wellbore Original Hole	
Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 598.0	Top Plug? Yes	Bottom Plug? No	Plug Bump Pressure (psi) 750.0	Cement Circulated? No		
Initial Pump Rate (bbl/min) 5	Final Pump Rate (bbl/min) 2	Plug Bump Pressure (psi) 750.0	Pipe Reciprocated? No	Tagged Depth (ftKB)	Depth Plug Drilled Out To (ftKB)		
Stage Number 1	Description Surface Casing Cement	Comment HELD PRE JOB SAFETY MEETING W/SCHLUMBERGER, CEMENT W/ 532 SX TYPE 1 CEMENT +2% CaCl + .25 #/PER SACK FLAKE MIX TO 15.6 ppg YIELD 1.2 SLURRY VOLUME 115 BBLS DISPLACE W/ 84.5 BBLS WATER W/ 40 BBLS CEMENT RETURNS TO SURFACE. CEMENT IN PLACE @ 4:30 PM 1-14-2014					
Fluid Type Tail	Class A	Amount (sacks) 532	Yield (ft ³ /sack) 1.20	Volume Pumped (bbl) 115.0	Density (lb/gal) 15.60	Fluid Description	

Intermediate 1 Casing Cement, Casing, 5/15/2014 08:30

Description Intermediate 1 Casing Cement							
String Intermediate 1, 5,794.0ftKB		Cementing Start Date 5/15/2014		Cementing End Date 5/16/2014		Wellbore Original Hole	
Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 4,696.0	Top Plug? No	Bottom Plug? Yes	Plug Bump Pressure (psi)	Cement Circulated? No		
Initial Pump Rate (bbl/min) 7	Final Pump Rate (bbl/min) 7	Plug Bump Pressure (psi)	Pipe Reciprocated? No	Tagged Depth (ftKB)	Depth Plug Drilled Out To (ftKB)		
Top Depth (ftKB) 4,696.0	Bottom Depth (ftKB) 5,806.0	Top Plug? Yes	Bottom Plug? No	Plug Bump Pressure (psi) 1,500.0	Cement Circulated? Yes		
Initial Pump Rate (bbl/min) 7	Final Pump Rate (bbl/min) 3	Plug Bump Pressure (psi) 1,500.0	Pipe Reciprocated? No	Tagged Depth (ftKB)	Depth Plug Drilled Out To (ftKB)		
Stage Number 1	Description Intermediate 1 Casing Cement	Comment					
Fluid Type Lead	Class A	Amount (sacks)	Yield (ft ³ /sack)	Volume Pumped (bbl)	Density (lb/gal)	Fluid Description	
Stage Number 2	Description Intermediate 1 Casing Cement	Comment					
Fluid Type Tail	Class A	Amount (sacks)	Yield (ft ³ /sack)	Volume Pumped (bbl)	Density (lb/gal)	Fluid Description	

Production Casing Cement, Casing, 5/24/2014 16:32

Description Production Casing Cement							
String PRODUCTION 5.5", 14,787.2ftKB		Cementing Start Date 5/24/2014		Cementing End Date 5/24/2014		Wellbore Original Hole	
Top Depth (ftKB) 5,794.0	Bottom Depth (ftKB) 14,787.0	Top Plug? Yes	Bottom Plug? Yes	Plug Bump Pressure (psi) 3,060.0	Cement Circulated? No		
Initial Pump Rate (bbl/min) 7	Final Pump Rate (bbl/min) 3	Plug Bump Pressure (psi) 3,060.0	Pipe Reciprocated? No	Tagged Depth (ftKB)	Depth Plug Drilled Out To (ftKB)		
Stage Number 3	Description Production Casing Cement	Comment					
Fluid Type	Class	Amount (sacks)	Yield (ft ³ /sack)	Volume Pumped (bbl)	Density (lb/gal)	Fluid Description	

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JAN 03 2017

WV Department of
Environmental Protection

MAG
12-20-16

02/10/2017

WW-9
(4/16)

API Number 47 - 85 - ~~10007~~ 10074 F
Operator's Well No. ~~PEN2440~~ JHS

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 Ellenboro

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: N/A

Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain N/A Drilling complete.)

*12 MAG
2016*

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, sawdust) _____

-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 cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Matt Hanley*

Company Official (Typed Name) Matt Hanley

Company Official Title Manager- Permitting

Subscribed and sworn before me this 21st day of December, 2016

Shirley J. Kline

My commission expires 12-11-17

Notary Public
 My Commission Expires Dec 11, 2017
 JAN 10 2017
 FRANKLIN COUNTY
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 02/10/2017

CNX GAS COMPANY LLC

Proposed Revegetation Treatment: Acres Disturbed 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

Fertilizer amount see attached lbs/acre

Mulch see attached Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

see attached

see attached

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael J. [Signature]

Comments: Site previously built and wells have been drilled but not completed. Please see attached copy of originally submitted WW9 from Noble Energy Inc. CNX GAS COMPANY LLC will follow

the previously permitted reclamation plan set forth by NOBLE ENERGY in their previous submittal for reclamation of the site as well as CNX's pad expansion areas. (see attached)

Title: Oil & Gas Inspector

Date: 12-30-16 **RECEIVED**
Office of Oil and Gas

Field Reviewed? Yes No

JAN 03 2017



Safety Plan for PEN2 Well Pad

Wells PEN2AHS, PEN2BHS, PEN2HHS, PEN2JHS, PEN2KHS

CNX Gas Company LLC



Environmental Protection

85-10074F

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:

West Virginia Division of Environmental Protection, Office of Oil and Gas

And

West Virginia Oil and Gas Conservation Commission.

Approved this day 20th of month December, 2016 by

Michael A. Daff

Date: 12-20-16

Date: _____

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JAN 03 2017

WV Department of
Environmental Protection
02/10/2017

85-10074F

CNX Gas Company LLC – PEN2 PAD – Water Management Plan

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.

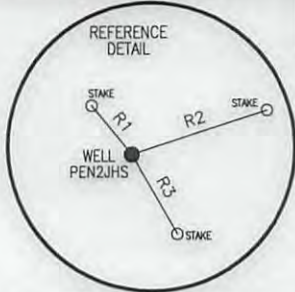
A list of well pads that have supplied water to these facilities has been included as an attachment. All of the water facilities to be utilized are permitted to hold produced fluid consistent with the regulatory obligations in that state.

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Office of Oil and Gas

JAN 03 2017

WV Department of
Environmental Protection 02/10/2017

BHL is located on topo map 9,213 feet south of Latitude: 39° 22' 30"
 SHL is located on topo map 13,974 feet south of Latitude: 39° 22' 30"



LINE	BEARING	DISTANCE
R1	N 39°12'44" W	131.55'
R2	N 72°08'18" E	297.08'
R3	S 29°44'49" E	190.23'
R4	N 57°44'38" W	1781.40'
R5	N 18°17'02" W	1812.10'
R6	N 17°12'40" E	1661.39'

LEGEND

- ⊕ - TOPO MAP POINT
- ☼ - WELL
- - ALL ARE POINTS UNLESS OTHERWISE NOTED.
- ⊙ - WATER SOURCE
- ⊖ - LEASE NUMBER BASED ON ATTACHED WW-6A1
- - - - - MINERAL TRACT BOUNDARY
- - - - - PARCEL LINES
- - - - - WELL REFERENCE
- - - - - PROPOSED HORIZONTAL WELL
- - - - - ROAD
- - - - - STREAM CENTER LINE

WELLS WITHIN 3000'

- - EXISTING WELLS
- ⊖ - PLUGGED WELLS

SURFACE HOLE LOCATION (SHL)	
UTM 17-NAD83	N:4354132.13
	E:498905.50
NAD27, WV NORTH	
	N:308286.04
	E:1572105.93
LAT/LON DATUM-NAD83	
	LAT:39.336614
	LOX:-81.012700
APPROX. LANDING POINT	
UTM 17-NAD83	N:4353847.60
	E:498328.85
NAD27, WV NORTH	
	N:307384.00
	E:1570198.01
LAT/LON DATUM-NAD83	
	LAT:39.334049
	LOX:-81.019391
BOTTOM HOLE LOCATION (BHL)	
UTM 17-NAD83	N:4355585.45
	E:496821.78
NAD27, WV NORTH	
	N:313169.46
	E:1565347.71
LAT/LON DATUM-NAD83	
	LAT:39.349704
	LOX:-81.036886

BHL is located on topo map 10,431 feet west of Longitude: 81° 00' 00"
 SHL is located on topo map 3,601 feet west of Longitude: 81° 00' 00"

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. There are no existing buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
6. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

PROPOSED HORIZ. LENGTH: 10,192'±

APPROXIMATE LANDING POINT OF HORIZONTAL LEG

Blue Mountain Inc.
 10125 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *[Signature]*

R.P.E.:

L.L.S.: P.S. No. 2000

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: DECEMBER 19, 2016

OPERATOR'S WELL #: PEN2JHS

API WELL #:	STATE	COUNTY	PERMIT
47	85	10074	F

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: NORTH FORK HUGHES RIVER ELEVATION: 1081.34± 1075.4'

COUNTY/DISTRICT: RITCHIE / CLAY QUADRANGLE: ELLENBORO, WV 7.5'

SURFACE OWNER: TERRY & HELEN KIESSLING ACREAGE: 79.242±

OIL & GAS ROYALTY OWNER: TERRY KIESSLING ET AL ACREAGE: 589.154±

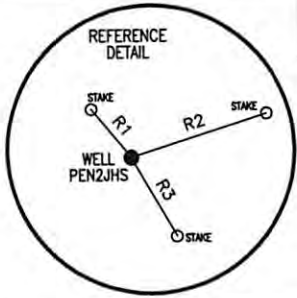
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,314'± TMD: 15,012'±

WELL OPERATOR: CNX GAS COMPANY LLC DESIGNATED AGENT: CHRIS TURNER
 Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DR.
 City: CANONSBURG State: PA Zip Code: 15317 City: JANE LEW State: WV Zip Code: 26378

02/10/2017

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Signed: *George D. Six*
 R.P.E.: _____ L.L.S.: P.S. No. 2000

PLACE SEAL HERE

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DATE: DECEMBER 19, 2016
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 API WELL #: 47 85 10074 F
 STATE COUNTY PERMIT

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 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

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 Address 1000 CONSOL ENERGY DRIVE Address 1 DOMINION DR.
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

02/10/2017

**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: *Mark Hamilton*

Its: Manager-Permitting

85-10074F

Attachment - Form WW-6A-1 for PENS2JHS

RECEIVED
 Office of Oil and Gas
 JAN 3 2017
 Department of Environmental Protection

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
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	
1	3-6-10	108743000	Evelyn Dodd and Burl Dodd, w/h; Glenn Ross and Irene Ross, h/w; Blaine Lamm and Edith Lamm, h/w; Ida Lee Lam	CNG Development Company	Not less than 1/8	LB 206/138
1	3-6-10	108743000	Mary Ruth Everhart	CNG Development Company	Not less than 1/8	LB 206/126
1	3-6-10	108743000	Louis Walker and Betty Walker, h/w	CNG Development Company	Not less than 1/8	LB 206/146
1	3-6-10	108743000	Margaret Clark, Attorney In Fact for Monica Smith	CNG Development Company	Not less than 1/8	LB 206/122
1	3-6-10	108743000	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 Producing Company	CNG Producing Company	Merger	Merger/Consolidation AIC 58/366 (Harrison County, WV)
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger	
			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

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>	
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

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>	
3	3-12-4.5	244549000	Arthur D. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/251
3	3-12-4.5	244549000	Kenneth L. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/254
3	3-12-4.5	244549000	Gerald S. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/394
3	3-12-4.5	244549000	Dale Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/385
3	3-12-4.5	244549000	Haze H. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/388
			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

85-10074F

<u>Tax Map & Parcel</u>		<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
4,5	3-6-9, 3-6-9.8	256141000 William Simonton and M. Victoria Simonton, h/w L. J. Murphy E. W. Mallory, Executor of the Estate of J. W. Mallory L. B. Ekas and Bertha Ekas, h/w H. W. Masters, attorney in fact for J. W. Stewart and Olive Stewart, husband and wife James Henaghan and E. I. Hanlon Henaghan & Hanlon, Inc. E. I. Hanlon Hanlon Oil Company Charles E. Reed Chief Drilling, Inc. Charles E. Reed Chief Drilling, Inc. Chief Drilling, Inc. Hi-Lo Investment Company Hi-Lo Investment Company Chief Drilling, Inc., Wilbur Williams; Mackenzie Products Company, James M. Burger, Edwin Morrill, and Chester Hilinski Ralph J. Hunter Big Knot Oil Company, Inc. The Glass Development Co., Inc. Noble Energy, Inc.	CNX Gas Company LLC L. J. Murphy Mallory Brothers & Stewart L. B. Ekas James Henaghan and E. I. Hanlon James Henaghan and E. I. Hanlon Henaghan & Hanlon, Inc. E. I. Hanlon Hanlon Oil Company Charles E. Reed Chief Drilling, Inc., Wilbur Williams, Hi-Lo Investment Company, James M. Burger, and Edwin Morrill (1/8th) Charles E. Reed Chief Drilling, Inc. Chester Hilinski Chester Hilinski The Mackenzie Products Company The Mackenzie Products Company Ralph J. Hunter Big Knot Oil Company, Inc. The Glass Development Co., Inc. Noble Energy, Inc. CNX Gas Company LLC	50% Assignment Not less than 1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment	LB 304/344 LB 12/273 LB 12/274 LB 49/253 LB 49/543 LB 49/561 LB 50/266 LB 76/264 LB 76/488 LB 109/584 LB 109/602 LB 109/606 LB 112/105 DR 158/115 LR 112/108 LR 112/623 LR 112/618 LB 112/608 LB 112/621 LB 256/781 LB 271/662 LB 304/344

<u>Tax Map & Parcel</u>		<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
6	3-6-8, 3-6-8.2	269219000 F. P. Weekley, Albert J. Weekley and Ollie Weekley, husband and wife, and C. C. Weekley, Guardian for Dollie Weekley, a minor L. J. Murphy George W. Barnes F. E. Mallory and Jennie R. Mallory, husband and wife E. W. Mallory, Executor of the Estate of J. F. Mallory L. B. Ekas and Bertha Ekas, h/w H. W. Masters, attorney in fact for J. W. Stewart and Olive Stewart, husband and wife James Henaghan and E. I. Hanlon Henaghan & Hanlon, Inc. E. I. Hanlon Hanlon Oil Company	L. J. Murphy Mallory Brothers & Stewart Mallory Bros. & Stewart J. F. Mallory and J. W. Stewart L. B. Ekas James Henaghan and E. I. Hanlon James Henaghan and E. I. Hanlon Henaghan & Hanlon, Inc. E. I. Hanlon Hanlon Oil Company Charles E. Reed	Not less than 1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment	LR 12/275 LB 12/277 LR 49/460 LR 49/463 LR 49/253 LB 49/543 LB 49/561 LB 50/266 LB 76/264 LB 76/488 LB 109/584

Received
 Office of Oil and Gas
 Book/Page
 217
 WV Department of
 Environmental Protection

85-10074F

Charles E. Reed
 Chief Drilling, Inc.
 Charles E. Reed
 Chief Drilling, Inc.
 Chief Drilling, Inc.
 Hi-Lo Investment Company
 Hi-Lo Investment Company
 Chief Drilling, Inc., Wilbur Williams; Mackenzie
 Products Company, James M. Burger, Edwin
 Morrill, and Chester Hilinski
 Ralph J. Hunter
 Big Knot Oil Company, Inc.
 The Glass Development Co., Inc.
 Noble Energy, Inc.

Chief Drilling, Inc., Wilbur Williams,
 Hi-Lo Investment Company, James
 M. Burger, and Edwin Morrill (1/8th)
 Charles E. Reed
 Chief Drilling, Inc.
 Chester Hilinski
 Chester Hilinski
 The Mackenzie Products Company
 The Mackenzie Products Company

 Ralph J. Hunter

 Big Knot Oil Company, Inc.
 The Glass Development Co., Inc.
 Noble Energy, Inc.
 CNX Gas Company LLC

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RECEIVED
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 JAN 23 2013
 LB 109/602
 LB 109/606
 LB 112/108
 DR 158/108
 LR 112/108
 LR 112/621
 LR 112/618
 LR 112/608
 LR 112/621
 LR 256/781
 LR 271/662
 LR 304/344

WV Department of
 Environmental Protection

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
7,8,9	3-6-4, 3-6-4.1, 3-6-4.2, 3-6-4.3	281568000 M. L. Gorrell and G. J. Gorrell, husband and wife	J. H. Ellsworth and A. D. Davis	Not less than 1/8	LR 13/138
		J. H. Ellsworth and A. D. Davis	J. F. Stewart	Assignment	LR 14/114
		J. F. Stewart and Charles Stewart	J. C. Trees	Assignment	LR 14/322
		J. C. Trees	J. O. Brown	Assignment	LR 18/141
		J. O. Brown	N. W. McLean	Assignment	LR 18/140
		J. C. Trees	J. C. Trees Oil Company	Assignment	LR 18/541
		A. D. Davis	Nettie Davis	Assignment	LR 24/390
		J. C. Trees Oil Company	J. H. Ellsworth	Assignment	LR 23/323
		J. F. Stewart	J. H. Ellsworth and J. H. McBride	Assignment	LR 24/188
		Susan S. McLean, Executrix of the Estate of Nancy W. McLean (commonly called N. W. McLean), and Susan S. McLean, in her own right	J. Howard McBride	Assignment	LR 26/399
		J. Howard McBride	J. Rolla McMahan	Assignment	LR 26/394
		Nettie Davis	J. H. McBride	Assignment	LR 26/398
		J. Rolla McMahan	J. Howard McBride	Assignment	LR 26/396
		Mrs. Carrie Ellsworth, individually and as wife of J. H. Ellsworth, Miss Pauline Ellsworth, daughter of J. H. Ellsworth, and J. H. Ellsworth	W. C. Dotson, Committee for J. H. Ellsworth	Quitclaim Deed	LR 28/355
		W. C. Dotson, Committee for J. H. Ellsworth	J. H. McBride	Assignment	LR 28/513
		J. Howard McBride and Myrtle E. McBride, husband and wife	James Henaghan and Edward I. Hanlon	Deed of Assignment	LR 37/294
		J. Howard McBride and Myrtle E. McBride, husband and wife	James Henaghan and E. I. Hanlon	Assignment	LR 37/307
		James Henaghan and E. I. Hanlon, d/b/a Henaghan & Hanlon	Henaghan & Hanlon, Inc.	Assignment	LR 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

85-10074/F

Charles E. Reed
 Chief Drilling, Inc.
 Hi-Lo Investment Company
 Chief Drilling Inc.
 Chief Drilling, Inc., Wilbur Williams; Mackenzie Products Company, James M. Burger, Edwin Morrill, and Chester Hilinski
 Ralph J. Hunter
 Big Knot Oil Company, Inc.
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Chief Drilling, Inc., Wilbur Williams, Hi-Lo Investment Company, James M. Burger, and Edwin Morrill (1/8th)
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 The Glass Development Co., Inc.
 Noble Energy, Inc.
 CNX Gas Company LLC

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 109/606
 112/623
 112/108
 112/608
 112/621
 256/781
 271/662
 304/344

My Department of
 Environmental Protection

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
10,11	3-6-1.1, 258018000, 3-6-1 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 Henaghan and Hanlon, Inc. E. I. Hanlon Hanlon Oil Company Charles E. Reed Chief Drilling, Inc. Charles E. Reed Chief Drilling, Inc. Chief Drilling, Inc. Hi-Lo Investment Company, a partnership, by Stephen J. Deitz, agent and partner Hi-Lo Investment Company Chief Drilling, Inc., Wilbur Williams; Mackenzie Products Company, James M. Burger, Edwin Morrill, and Chester Hilinski Ralph J. Hunter Big Knot Oil Company, Inc. The Glass Development Co., Inc. Noble Energy, Inc.	South Penn Oil Company Henaghan and Hanlon, Inc. E. I. Hanlon Hanlon Oil Company Charles E. Reed Chief Drilling, Inc., Wilbur Williams, Hi-Lo Investment Company, James M. Burger, and Edwin Morrill (1/8th) Charles E. Reed Chief Drilling, Inc. Chester Hilinski Chester Hilinski The Mackenzie Products Company The Mackenzie Products Company Ralph J. Hunter Big Knot Oil Company, Inc. The Glass Development Co., Inc. Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment	LR 11/157 LR 52/371 LR 76/264 LR 76/488 LR 109/584 LB 109/602 LB 109/606 LB 112/105 DR 158/115 LR 112/108 LR 112/623 LR 112/618 LR 112/608 LR 112/621 LR 256/781 LR 271/662 LR 304/344



*Frac
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is existing see*

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

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

RE: Road Letter – PENS 2 Well Pad Rework Applications

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,

A handwritten signature in blue ink that reads 'Matthew Hanley'.

Matthew Hanley
CNX Gas Company LLC

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of Environmental Protection
02/10/2017

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

Date of Notice Certification: _____

API No. 47- 85 - 10074 *E*
Operator's Well No. PEN2JHS
Well Pad Name: PEN2

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>498907.682</u>
County:	<u>085</u>		Northing:	<u>4354126.437</u>
District:	<u>Clay</u>	Public Road Access:	<u>County Road 6/3</u>	
Quadrangle:	<u>Ellenboro</u>	Generally used farm name:	<u>Keissling</u>	
Watershed:	<u>Northfork of Hughes River HUC10 / Bonds Creek</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p align="center"><i>NO DRILLING</i></p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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Required Attachments:

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

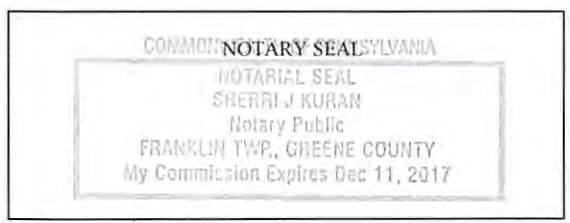
JAN 03 2017

WV Department of
Environmental Protection **02/10/2017**

Certification of Notice is hereby given:

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

Well Operator:	<u>CNX GAS COMPANY LLC</u>	Address:	<u>1000 Consol Energy Dr.</u>
By:	<u><i>Matt Hanley</i></u>		<u>Canonsburg PA 15317</u>
Its:	<u>Manager-Permitting</u>	Facsimile:	<u>724-485-4932</u>
Telephone:	<u>724-485-3011</u>	Email:	<u>MattHanley@consolenergy.com</u>



Subscribed and sworn before me this 21st day of December 2016.
Sherri J. Kuran Notary Public
 My Commission Expires 12-11-17

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.

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection
02/10/2017

**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 WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A 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:

SURFACE OWNER(s)
 Name: Terry and Helen Kiessling
 Address: 8629 Red Maple Dr.
Cincinnati, OH 45244
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: _____
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: Frank Grass et al
 Address: 5115 Lansins Dr
Charlotte, NC 28270
 Name: _____
 Address: _____

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(S)
 Name: Terry and Helen Kiessling
 Address: 8629 Red Maple Dr.
Cincinnati, OH 45244

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: _____
 Address: _____

*Please attach additional forms if necessary

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 WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A 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:

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 Address: 8629 Red Maple Dr.
Cincinnati, OH 45244
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: _____
 Address: _____

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: Frank Grass et al
 Address: 5115 Lansins Dr
Charlotte, NC 28270
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: Larry J McCullough
 Address: 3694 Bonds Creek road
Pennsboro WV 26415

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: _____
 Address: _____

RECEIVED
Office of Oil and Gas
JAN 03 2017

*Please attach additional forms if necessary

WV Department of Environmental Protection

02/10/2017

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:

- [X] PERMIT FOR ANY WELL WORK [] CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- [] PERSONAL SERVICE [] REGISTERED MAIL [X] METHOD OF DELIVERY THAT REQUIRES A 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.

[X] Application Notice [X] WSSP Notice [X] E&S Plan Notice [X] Well Plat Notice is hereby provided to:

[X] SURFACE OWNER(s) Name: Terry and Helen Kiessling Address: 8629 Red Maple Dr. Cincinnati, OH 45244

[] COAL OWNER OR LESSEE Name: Address:

[] COAL OPERATOR Name: Address:

[X] SURFACE OWNER(s) (Road and/or Other Disturbance) Name: Frank Grass et al Address: 5115 Lansins Dr Charlotte, NC 28270

[X] SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s) Name: Scott and Erica Hammond Address: 631 Stone Road Pennsboro WV 26415

[] SURFACE OWNER(s) (Impoundments or Pits) Name: Address:

[] OPERATOR OF ANY NATURAL GAS STORAGE FIELD Name: Address:

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
JAN 03 2017

WV Department of Environmental Protection
02/10/2017

**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 WELL WORK CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A 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:

SURFACE OWNER(s)
Name: Terry and Helen Kiessling
Address: 8629 Red Maple Dr.
Cincinnati, OH 45244
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass et al
Address: 5115 Lansins Dr
Charlotte, NC 28270
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Edward and Cheryl Haas
Address: 1060 Blacks Run
Pennsboro WV 26415

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary.

RECEIVED
Office of Oil and Gas

WV Department of
Environmental Protection

02/10/2017

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 or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

Chief, Office of Oil and Gas
Department of Environmental Protection
601 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.**

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

Disclaimer: All comments received will be placed on our web site <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 determines that:

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

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

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

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WW-6A
(8-13)

API NO. 47- 085 - 10074 F
OPERATOR WELL NO. PEN2JHS
Well Pad Name: PEN2

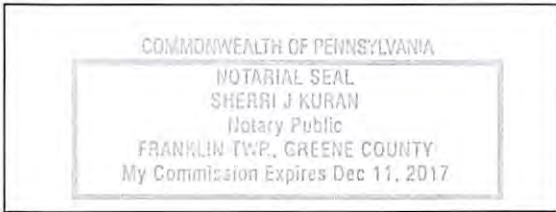
Notice is hereby given by:

Well Operator: CNX GAS COMPANY LLC *Matthew Hanley*
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.



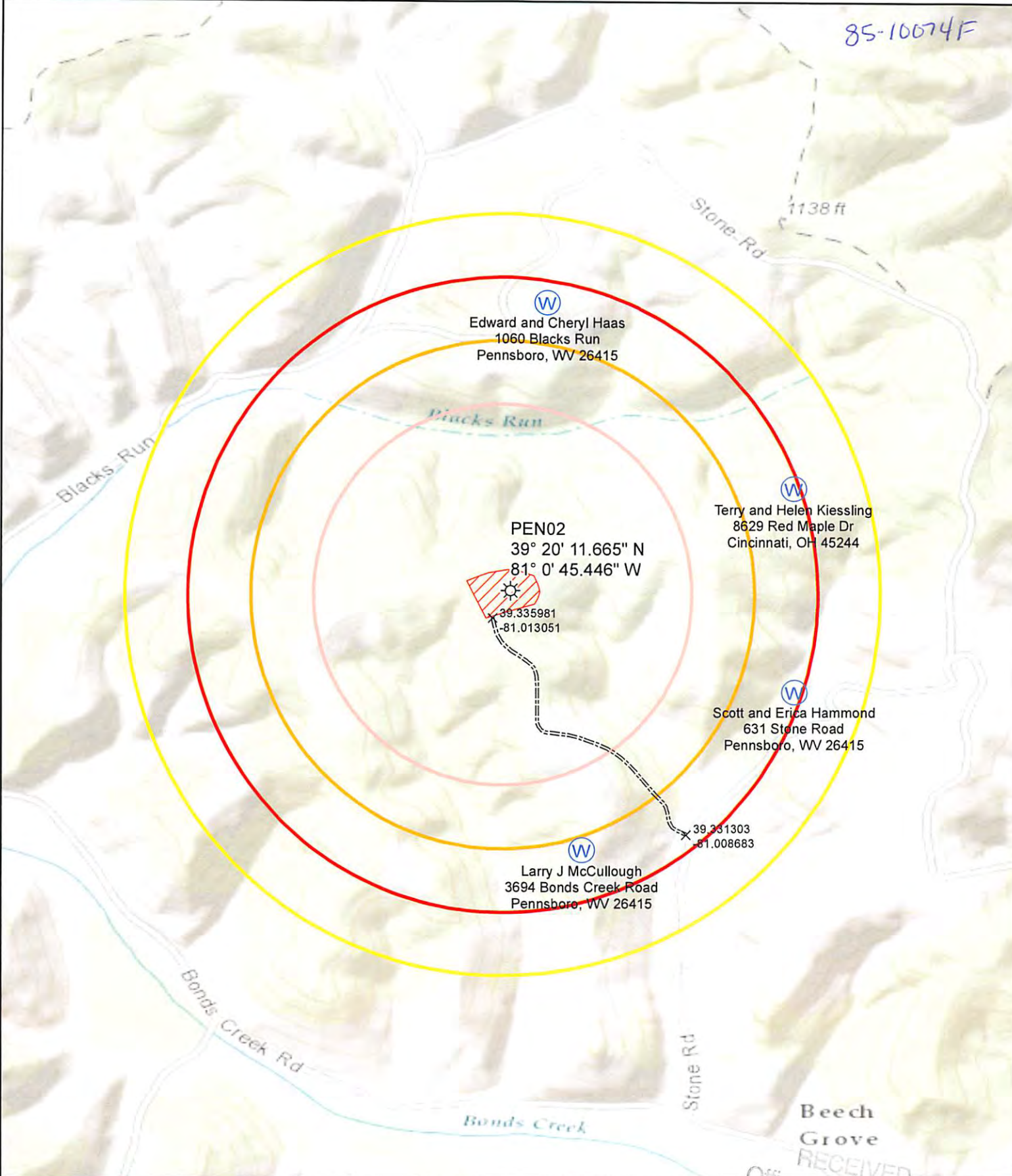
Subscribed and sworn before me this 21st day of December, 2016.

Sherri J. Kuran Notary Public

My Commission Expires 12-11-17

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Environmental Protection
02/10/2017

85-10074F



Edward and Cheryl Haas
1060 Blacks Run
Pennsboro, WV 26415

Terry and Helen Kiessling
8629 Red Maple Dr
Cincinnati, OH 45244

Scott and Erica Hammond
631 Stone Road
Pennsboro, WV 26415

PEN02
39° 20' 11.665" N
81° 0' 45.446" W

39.335981
-81.013051

39.331303
-81.008683

Larry J McCullough
3694 Bonds Creek Road
Pennsboro, WV 26415

Legend

- Wellbore
- Water Wells
- Access Points
- Well Pad
- Access Road

Buffers

- 1500
- 2000
- 2500
- 3000

0 500 1,000 2,000 3,000 Feet

1 inch = 1,000 feet

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Prepared By: M. Keener

Original Date: 12/15/2016

Revision Date:

Revision Date:

CONSOL ENERGY
Canonsburg, PA

JAN 03 2017

PEN2
Water Survey Map

Environmental Protection

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Earl Ray Tomblin
Governor

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 BHS Well Site HHS well Site
JHS Well Site KHS Well Site

Dear Mr. Martin,

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
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Office of Oil and Gas

Gary K. Clayton
Regional Maintenance Engineer
Central Office Oil and Gas Coordinator
JAN 12 2017
WV Department of Environmental Protection

Cc: Matt Hanley
CNX Energy LLC.
CH, OM, D-3
File

02/10/2017



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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Earl Ray Tomblin
Governor

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 BHS Well Site HHS well Site
JHS Well Site KHS Well Site

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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

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