



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, October 18, 2019
WELL WORK PERMIT
Horizontal 6A / New Drill

CNX GAS COMPANY LLC
1000 CONSOL ENERGY DR
CANONSBURG, PA 15370

Re: Permit approval for SHR38JHSM
47-095-02649-00-00

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.

A handwritten signature in blue ink, appearing to read "James A. Martin".

James A. Martin
Chief

Operator's Well Number: SHR38JHSM
Farm Name: JAMES E. ASH ET AL
U.S. WELL NUMBER: 47-095-02649-00-00
Horizontal 6A New Drill
Date Issued: 10/18/2019

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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. 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.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: _____

PERMIT CONDITIONS

11. 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.



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CNX Gas Company, LLC
1000 Consol Energy Drive
Canonsburg, PA 15370

Pursuant to West Virginia Code §22-6A-8(g)(2), the Office of Oil and Gas hereby grants approval of the September 10, 2019 request by CNX Gas Company, LLC to land apply certain drill cuttings on its SHR38 well pad in Tyler County. This approval is limited to the land application of drill cuttings associated with the drilling of the conductor section of the wellbores for wells with the following API numbers: 47-095-02514, 47-095-02569, 47-095-02570, 47-095-02571, 47-095-02572, 47-095-02648, 47-095-02649, 47-095-02650, 47-095-02651, 47-095-02652, and 47-095-02653.

Drill cuttings covered under this approval must be free of any additives, lubricants, etc. and be composed of only the earthen material removed from the wellbore down to the point at which the conductor casing is installed. No material removed from the wellbore below the base of the conductor casing may be land applied.

This approval is being provided in conjunction with the assertion by CNX Gas Company, LLC, that consent from all owners of the surface of the tract where the SHR38 well pad is located has been obtained and is only valid upon the condition that consent has been obtained.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a horizontal line.

James A. Martin, Chief
Office of Oil and Gas
West Virginia Department of Environmental Protection

Date

A handwritten date 'October 1, 2019' in blue ink is written over a horizontal line.

Archived: Tuesday, October 1, 2019 2:00:41 PM

From: Whetstone, Erika

Sent: Tue, 1 Oct 2019 12:40:15 +0000ARC

To: Brewer, Charles T; Stansberry, Wade A

Subject: [External] SHR38 Revised WW9 forms

Importance: Normal

Attachments:

4709502514.pdf 709502569.pdf 709502570.pdf 709502571.pdf 709502572.pdf 709502648.pdf 709502649.pdf 709502650.pdf
4709502651.pdf 709502652.pdf 709502653.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and are expecting the content. -- WV Office of Technology

Good morning,

CNX Gas Company LLC would like to request a modification for wells with APIs 47-095-02514, 47-095-02569, 47-095-02570, 47-095-02571, and 47-095-02572. The purpose for this request is to allow CNX to land apply the soil conductor cuttings on site per DEP approval. Updated WW9 forms are attached to this email.

Similarly, CNX would also like to request a revision to current applications under review for APIs 47-095-02648, 47-095-02649, 47-095-02650, 47-095-02651, 47-095-02652, and 47-095-02653. Updated WW9 forms are attached with a revision to the drill cuttings disposal method.

Please let me know if you have any questions or need anything further.

Thank you,
Erika

Erika Whetstone
CNX | Permitting Manager - Infrastructure
CNX Center | 1000 CONSOL Energy Drive | Canonsburg, PA 15317
(724) 485-4035 –w | (724) 317-2224 –m

"This communication, including any attachments, may contain confidential and privileged information that is subject to the CNX Resources Corporation Business Information Protection Policy. The information is intended solely for the use of the intended recipient(s). If you are not an intended recipient, you are prohibited from any use, distribution, or copying of this communication. If you have received this communication in error, please immediately notify the sender and then delete this communication in its entirety from your system."

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

1) Well Operator: CNX Gas Company, LLC 494458046 Tyler Centerville West Union
Operator ID County District Quadrangle

2) Operator's Well Number: SHR38JHSM Well Pad Name: SHR38

3) Farm Name/Surface Owner: Ash Public Road Access: Duckworth Ridge Road 58/2

4) Elevation, current ground: 1026' Elevation, proposed post-construction: 1012'

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

(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No Yes

JCB
8/23/2019

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target formation is Marcellus Shale @ 6447'-6492' TVD, 45' thick, expected formation pressure ~4000 psi

8) Proposed Total Vertical Depth: 6480'

9) Formation at Total Vertical Depth: Marcellus Shale (will not penetrate Onondaga)

10) Proposed Total Measured Depth: 16,666'

11) Proposed Horizontal Leg Length: 9483'

12) Approximate Fresh Water Strata Depths: 85', 180', 225'

13) Method to Determine Fresh Water Depths: Offset water well information collected during predrill sampling

14) Approximate Saltwater Depths: 1932'

15) Approximate Coal Seam Depths: No known mineable coal seams; 430'-432', 480'-482'

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

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

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

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WW-6B
(04/15)

4709502649

API NO. 47-095 -
OPERATOR WELL NO. SHR38JHSM
Well Pad Name: SHR38

18)

CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	20	New	L/S	94.0	80	80	77 / CTS
Fresh Water	13.375	New	J-55	54.5	600	600	417 / CTS
Coal	13.375	New	J-55	54.5	600	600	417 / CTS
Intermediate	9.625	New	J-55	36.0	2600	2600	844 / CTS
Production	5.5	New	P-110	20.0	16666	16666	3222 / TOC @ 2100'
Tubing	2.375	New	J-55	4.7		TBD	N/A
Liners	N/A						

JCS
8/23/2019

<u>TYPE</u>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	20	24	0.375	N/A	N/A	Type 1	1.18
Fresh Water	13.375	17.5	0.380	2730	<500	Class A	1.19
Coal	13.375	17.5	0.380	2730	<500	Class A	1.19
Intermediate	9.625	12.25	0.352	3520	<2815	Class A	1.19
Production	5.5	8.75 x 8.5	0.361	13590	~10000 during frac	Class A or H	1.10
Tubing	2.375	N/A	0.190	7700	N/A	N/A	N/A
Liners	N/A						

PACKERS

Kind:	N/A			
Sizes:				
Depths Set:				

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WW-6B
(10/14)

API NO. 47-⁰⁹⁹4709502649
OPERATOR WELL NO. SHR38JHSM
Well Pad Name: SHR38

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

Utilize conductor rig to set 20" conductor into solid rock and cement back to surface. MIRU drilling rig. Air drill 17-1/2" hole. Run and cement 13-3/8" fresh water/coal casing. Note that the fresh water/coal casing will be set through the named but un-mineable coals in order to isolate sloughing formations and red beds/red shale between the Washington and Waynesburg coals. Air drill 12-1/4" hole. Run and cement 9-5/8" intermediate casing. Air drill 8-3/4" production hole to curve KOP (this section is typically directionally drilled with a slant/tangent profile for anti-collision and for lateral spacing). Displace hole with 12.0-12.8 ppg SOBM. Drill 8-1/2" curve from KOP to landing point. Continue drilling 8-1/2" lateral to TD (geosteer this section to remain in Marcellus target window). Perform clean-up cycle to condition well. Run and cement 5-1/2" production casing. Suspend well and skid to next well or RDMO drilling rig.

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

Run CBL to ~60 degrees in the curve and back to surface to determine production casing TOC. Test production casing and toe prep well. MIRU stimulation/hydraulic fracturing equipment. Fracture well by pumping required number of stages utilizing plug-and-perf method. Max anticipated treating pressure is ~10,000 psi and max anticipated treating pump rate is 80-90 bpm. Number of stages and stage spacing to be finalized after drilling. After last stimulation stage, drill out frac plugs and clean-out well to PBTD. Flow back and clean-up well. Tie well into production. Run tubing when required.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.57

22) Area to be disturbed for well pad only, less access road (acres): 6.97

23) Describe centralizer placement for each casing string:

Fresh water string: centralize shoe joint and every other joint to surface - utilize bow spring centralizers.
Intermediate string: centralize shoe joint and every 3rd joint to surface - utilize bow spring centralizers.
Production string: centralize every joint from shoe to TOC - utilize single piece/rigid bow centralizers.
Actual centralizer placement may be changed based on hole conditions.

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

Fresh water string: Class A cement with 1%-3% CaCl₂ and 1/4 pps cello-flake/LCM. Intermediate string: Class A cement with 0%-2% CaCl₂ and 1/4 pps cello-flake/LCM. Production string: Class A or H cement or Class H: Poz blend with dry blend and/or liquid additives including retarder, suspension agent, gas block, defoamer, fluid loss control, extender, dispersant, anti-settling agent. Actual cement blends may vary slightly depending upon cementing service company utilized.

25) Proposed borehole conditioning procedures:

Air sections are typically vertical holes - will ensure the hole is clean at section TD prior to TOOH to run casing (may require mist and/or soap to clean the hole). For the production hole - once at TD, circulate at max flowrate with max rotation until the shakers clean-up (typically requires multiple bottoms-up). For the production casing - once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement.

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*Note: Attach additional sheets as needed.

Cement Additives

- Conductor – 2% CaCl₂
- Freshwater/Coal – 2% CaCl₂
- Intermediate – 2% CaCl₂
- Production –
 - 2.6% Cement Extender
 - 0.7% Fluid Loss Additive
 - 0.5% High Temperature Retarder
 - 0.2% Friction Reducer

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DRILLING WELL PLAN
SHR-38J-HSM (Marcellus HZ)
Marcellus Shale Horizontal
Tyler County, WV

			SHR-38J-HSM SHL				N 302252.28, E 1622442.67 (NAD27)							
Ground Elevation			1012 GL Elevation				SHR-38J-HSM LP				N 320004.67, E 1621060.43 (NAD27)			
Azimuth			341°				SHR-38J-HSM BHL				N 328971.41, E 1617972.94 (NAD27)			
WELLBORE DIAGRAM														
HOLE	CASING	GEOLOGY	MD	TVD	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS					
24"	20" U/S	Conductor	80	80	AIR	To Surface	N/A	N/A	Stabilize surface fill/soil					
17-1/2"	13-3/8" 54.5# J-55 BTC	Shallowest Fresh Water		85	AIR / FW Mist	15.6 ppg Class A + 1% to 3% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface	Centralize every other joint from shoe to surface Bow spring centralizers	Ensure the hole is clean at section TD	Set through fresh water zones Set through coal zones Cemented to surface No known mineable coal seams					
		Deepest Fresh Water		225										
		Washington Coal		430										
		Red Beds		432										
		Waynesburg Coal		580										
		FW / Coal Casing	600	600										
12-1/4"	9-5/8" 36.0# J-55 LTC	Big Lime		1867	AIR / Soap	15.6 ppg Class A + 0% to 2% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface	Centralize every 3rd joint from shoe to surface Bow spring centralizers	Soap the hole as needed and ensure the hole is clean at section TD	Set through potential salt water zones Cemented to surface Casing to be set below the Big Injun and Berea and into Devonian Shale					
		Big Injun		1932										
		Price		2072										
		Weir		2232										
		Berea		2422										
		Intermediate Casing	2600	2600										
8-3/4" Tangent 8-1/2" Curve & Lateral	5-1/2" 20.0# P-110CY BPN	Gordon		2642	AIR	15.0 ppg Class A or H with additives (retarder, suspension agent, gas block, defoamer, fluid loss, extender, etc.) 10% OH Excess Yield = 1.10 TOC @ >= 500' above 9-5/8" shoe	Centralize every joint from shoe to TOC Single-piece/rigid bow centralizers	Once at TD, circulate at max flowrate with max rotation until shakers clean-up (typically requires multiple bottoms-up) Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement	Note: Actual centralizer placement may be changed due to hole conditions Note: Actual cement blends may vary slightly depending upon service company utilized					
		Warren		3337										
		Benson		4917										
		Alexander		5162										
		Cashaqua		6162										
		Middlesex		6267										
		West River		6307										
		Burkett		6377										
		Tully		6407										
		Hamilton		6428										
Marcellus		6447												
		Production Casing	16666	6480										

LP @ +/- 6480' TVD

8-3/4" x 8-1/2" Hole - Cemented Long String
 5-1/2" 20.0# P-110CY BPN (API Modified BTC)

+/- 9483' Lateral

TD @ +/- 6480' TVD

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SHR38 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 500' radius of the SHR38 pad. Any SOG well that falls within the Area of Review (AOR) has been reviewed and is provided in a list that includes API, Operator, Well Name, Well Number, Current Status, Total Depth, and Producing Formation at Total Depth. See following pages, including (Figures 3 and 4).

The Marcellus Shale of the Shirley area is found at an approximate True Vertical Depth (TVD) of 6500'. In the Shirley area, there are very few producing formations between the Big Injun and the Benson Sand. Most wells are either approximately 2000' or 5000' deep. Although there are a significant number of SOG Communication events in the Shirley area, 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.

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. CNX's nearest sonic data is from the SHR1C well (Figure 1), immediately north of the SHR38 pad. Frac modeling (Figure 2) 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.

SHR38 Pad Frac SOG Review / CRSD Review Thursday, November 8, 2018

Figure 1. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the SHR1C Stress Profile log.

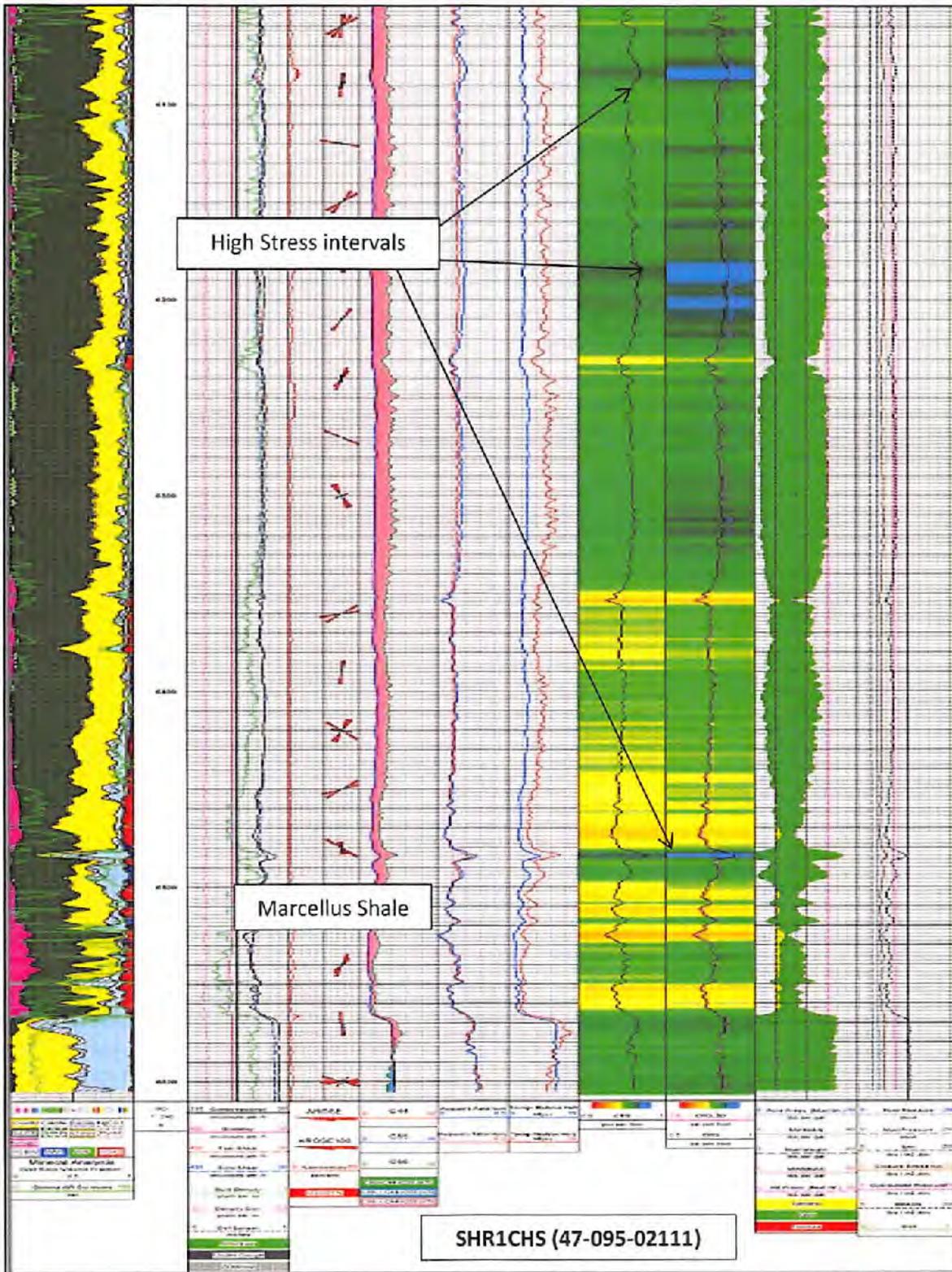


Figure 2. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Marcellus and adjacent shallower shales are lithologically similar to Pennsboro. Frac modeling only 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.

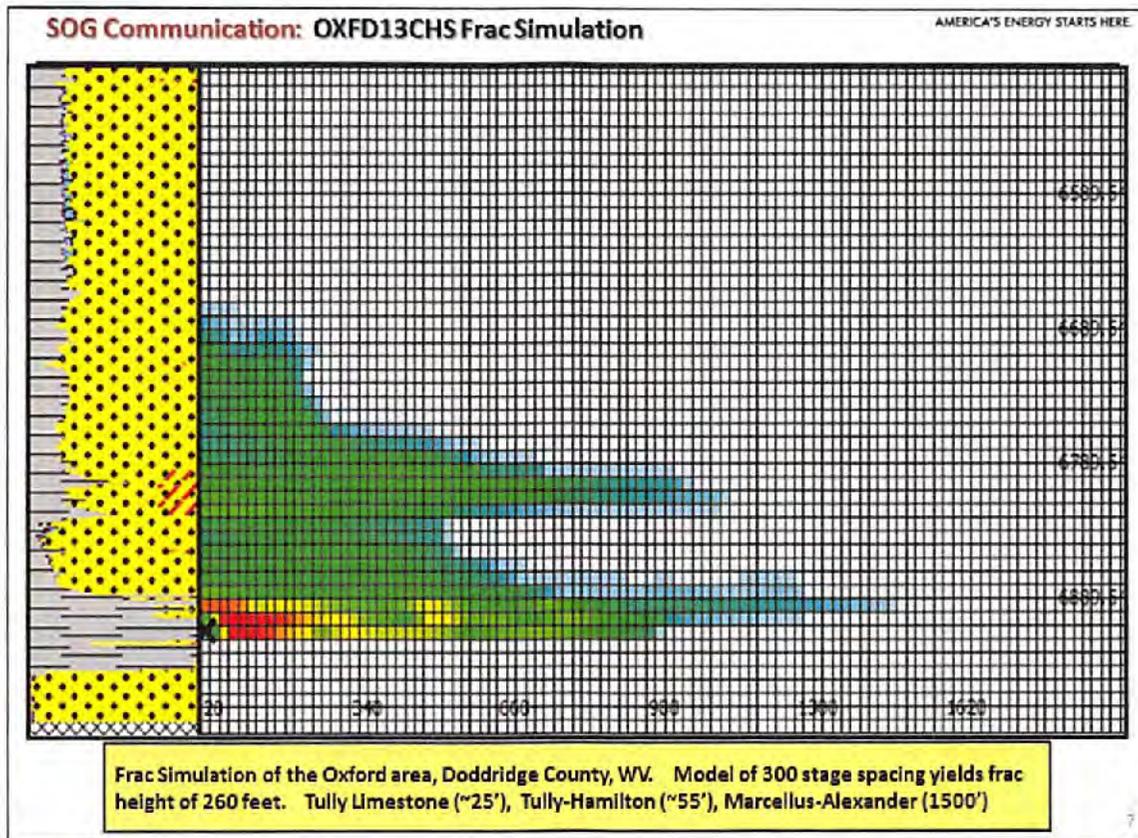
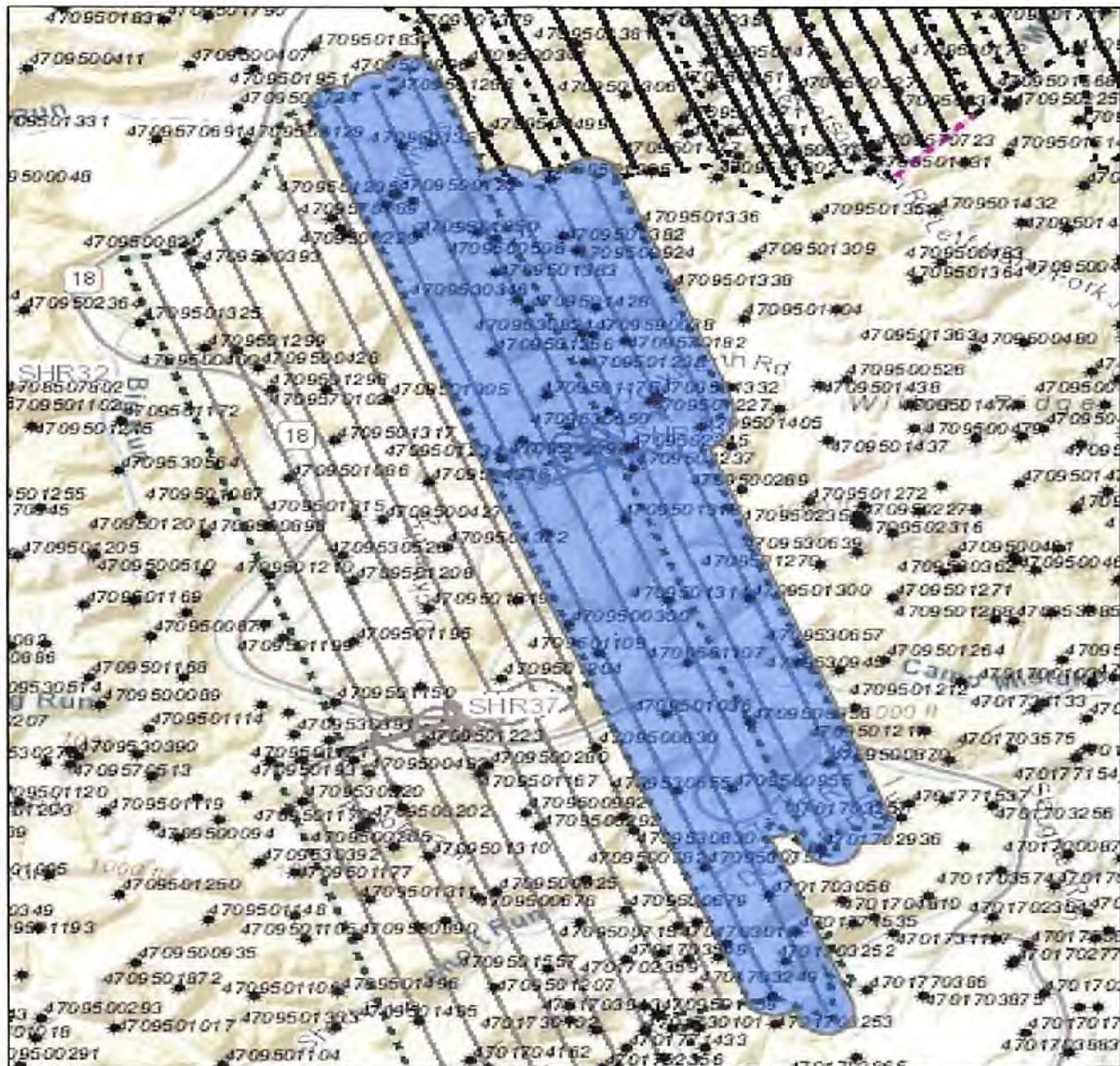


Figure 3. All wells within 500' buffer around the SHR38 pad have been reviewed and listed below.





SHR38 Pad Frac SOG Review / CRSD Review Thursday, November 8, 2018

Figure 4. All wells within 500' buffer around the SHR38 pad have been reviewed and listed below.

API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL_NAME	WELL_NO	TD	FMTD	ELEVATION
4701702361	WV	Doddridge	39.33791934	-80.82944913	Ritchie Petroleum Corp	Oil and Gas	L G Hammer 2		2996	Well	990
4701702462	WV	Doddridge	39.34440133	-80.82341529	Unknown	not available	Paul Strickling			Dodd 2936	830
4701702996	WV	Doddridge	39.34430633	-80.82337929	Greylock Conventional LLC	Gas	P Strickling 1			4900	Benson
4701703058	WV	Doddridge	39.34116734	-80.82658002	Greylock Conventional LLC	Gas	Middle Island			5117	Alexander
4701703252	WV	Doddridge	39.33671524	-80.825565321	Greylock Conventional LLC	Gas	W & V McCutcheon			3500	Alexander
4701703586	WV	Doddridge	39.37483806	-80.83367761	Consol Gas	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4701771437	WV	Doddridge	39.33436122	-80.82657418		not available	McCutchan-Haines				1135
4701771535	WV	Doddridge	39.33871526	-80.82489324		not available	N A Joseph				977
4709500097	WV	Tyler	39.37191314	-80.84222593	Unknown	Gas	John Ash	1	2005	Big Injun (undiff)	941
4709500103	WV	Tyler	39.38803655	-80.84941881	Lemon, Robert and Betty	Oil and Gas	D D Davis	1	1925	Big Injun (undiff)	946
4709500113	WV	Tyler	39.38780257	-80.85102277	Unknown	Oil and Gas	D D Davis	2	1885	Big Injun (undiff)	830
4709500120	WV	Tyler	39.38944545	-80.84290196	Unknown	Dry w/ Gas Show	W C Pierson / Josephs Mills	1	1952	Squaw	873
4709500123	WV	Tyler	39.38858257	-80.85033279	J A & M Oil and Gas	Oil w/ Gas Show	D D Davis	3	1883	Big Injun (undiff)	803
4709500208	WV	Tyler	39.39188259	-80.84805585	Unknown	Dry w/ O&G Show	Frank H Ash	1	2109	Price Fm & equivs	927
4709500300	WV	Tyler	39.35951588	-80.83641496	Prior, Ferrell	Gas	Alexander Doak Heirs	1	1836	Big Injun (undiff)	785
4709500508	WV	Tyler	39.3854884	-80.84398493	Equitrans	Gas	W N Moore			1900	Big Injun (undiff)
4709500757	WV	Tyler	39.34307445	-80.83071912	Allied Energy	Oil and Gas	Delmer Mulvay	1	2209	Berea Ss	760
4709500870	WV	Tyler	39.35004941	-80.82286032	Greylock Conventional LLC	Gas	Izetta B Garner	6	4901	Benson	790
4709500876	WV	Tyler	39.36557401	-80.84080595	Triad Hunter	Gas	Jacob L Dillon	1	2387	Berea Ss	975
4709500924	WV	Tyler	39.38476329	-80.83853904	Greylock Conventional LLC	Gas	W Paul McCutchen			5122	Alexander
4709500955	WV	Tyler	39.3483235	-80.82911817	Greylock Conventional LLC	Gas	Jay & Mary Collins			5279	Alexander
4709500956	WV	Tyler	39.35286655	-80.82783921	Greylock Conventional LLC	Gas	Jay & Mary Collins			5430	Alexander
4709501036	WV	Tyler	39.35339266	-80.83313209	Greylock Conventional LLC	Gas	Edwin D Mulvay et ux			5177	Benson
4709501101	WV	Tyler	39.37483806	-80.83367761	EQT	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501107	WV	Tyler	39.3568727	-80.83182713	Alliance Petroleum	Gas	Karen Jane Osborne	3	5306	Alexander	763
4709501108	WV	Tyler	39.35687256	-80.82472829	Alliance Petroleum	Gas	Karen Jane Osborne	1	5240	Alexander	978
4709501109	WV	Tyler	39.35759781	-80.8337443	Alliance Petroleum	Gas	Karen Jean Osborne	2	5325	Alexander	943
4709501178	WV	Tyler	39.37483806	-80.83367761	Unknown	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501206	WV	Tyler	39.37483806	-80.83367761	Anvil	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501226	WV	Tyler	39.3728251	-80.839312	Alliance Petroleum	Dry	Verna O Ash	1	5140	Benson	1013
4709501227	WV	Tyler	39.37456504	-80.83426712	Alliance Petroleum	Gas w/ Oil Show	Verna O Ash	2	5142	Benson	986
4709501234	WV	Tyler	39.37064915	-80.8436089	Alliance Petroleum	Gas	James E Ash	1	5096	Benson	909
4709501235	WV	Tyler	39.38838857	-80.85052578	Anja Resources	Gas	Geneva Fouts Sullivan	1	4890	Benson	812
4709501237	WV	Tyler	39.37006898	-80.83520209	Alliance Petroleum	Gas	Verna O Ash	3	5157	Benson	1029
4709501238	WV	Tyler	39.37722216	-80.83837803	Alliance Petroleum	Gas	Edna Dillon	1	5129	Benson	957
4709501254	WV	Tyler	39.36731382	-80.82921722	Alliance Petroleum	Gas	Charles Lee Cumberledge	1	5150	Benson	1018
4709501266	WV	Tyler	39.37780228	-80.8441709	Alliance Petroleum	Dry	David A Preston	1	4868	Benson	747
4709501269	WV	Tyler	39.3808472	-80.83763106	Alliance Petroleum	Gas	Lawrence Mercer	1	5007	Benson	850
4709501283	WV	Tyler	39.38592343	-80.8452929	Alliance Petroleum	Gas	Bruce & Veronica Smith	1	5009	Benson	863
4709501285	WV	Tyler	39.38954841	-80.84062202	Alliance Petroleum	Gas	James C Ferrell	1	5100	Benson	1032
4709501286	WV	Tyler	39.39534969	-80.8505278	Schultz Run Gas Company	Gas w/ Oil Show	Robert H Tennant	1	5005	Benson	826
4709501300	WV	Tyler	39.36122369	-80.82790623	Alliance Petroleum	Gas	John R Pratt	2	5150	Benson	949
4709501304	WV	Tyler	39.37384024	-80.84585185	Schultz Run Gas Company	Gas	Duane Clark et al	1	4923	Benson	758
4709501312	WV	Tyler	39.37483806	-80.83367761	Energy Corporation of America	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501314	WV	Tyler	39.36107879	-80.83295012	Greylock Conventional LLC	Gas	Charles Daughtery et al	3	5090	Benson	926
4709501318	WV	Tyler	39.36658893	-80.83576207	Greylock Conventional LLC	Gas	Charles Daughtery et al	1	5167	Benson	1012
4709501332	WV	Tyler	39.37483806	-80.83367761	Energy Corporation of America	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501336	WV	Tyler	39.38635824	-80.83482814	Alliance Petroleum	Gas	Elmer Cecil	1	5069	Benson	956
4709501338	WV	Tyler	39.38215313	-80.83277518	Alliance Petroleum	Gas	Timothy N Ingoglia	1	5045	Benson	949
4709501350	WV	Tyler	39.3657785	-80.84902981	Alliance Petroleum	Gas	Ryan J Lind et ux	1	4907	Benson	785
4709501351	WV	Tyler	39.39172362	-80.8499658	Alliance Petroleum	Gas	Robert H Tennant	2	5034	Benson	924
4709501382	WV	Tyler	39.38563332	-80.83968703	Alliance Petroleum	Gas	Matthew Ash	3	5136	Benson	1049
4709501383	WV	Tyler	39.38331337	-80.84398492	Alliance Petroleum	Gas	Matthew Ash	4	5117	Benson	1027
4709501405	WV	Tyler	39.37282494	-80.8309022	Alliance Petroleum	Gas	Conrad Costlow	1-A	7136	Big Injun (undiff)	976
4709501428	WV	Tyler	39.38070228	-80.84192896	Alliance Petroleum	Gas	Lawrence Mercer Hrs	5	5002	Benson	893
4709501486	WV	Tyler	39.37152	-80.83520209	Drilling Appalachian Corp	Dry	Verna O Ash	4	2155	Big Injun (undiff)	1036
4709501951	WV	Tyler	39.39563978	-80.8548267	Diversified Resources	Gas w/ Oil Show	Donna Marie Vandine	2	6280	Marcellus Sh	728
4709502245	WV	Tyler	39.37127601	-80.83562008	Noble		J E Ash et al	SHR081	not drilled	not drilled	1019
4709503046	WV	Tyler	39.38142731	-80.84267595		Gas	Lucretta Mercer	2	2101	Squaw	954
4709503050	WV	Tyler	39.37388707	-80.83688306		Gas	P P Deak		1992	Big Injun (undiff)	972
4709503057	WV	Tyler	39.35807958	-80.8247173		Gas	A U Davis		1972	Big Injun (undiff)	885
4709503024	WV	Tyler	39.37910719	-80.83856504		Gas	Lawrence Mercer	1	1904	Squaw	738
4709503055	WV	Tyler	39.34821857	-80.83255109		Gas	Wm Smith		1836	Big Injun (undiff)	763
4709503087	WV	Tyler	39.37490217	-80.84080697		Gas	Martin M Grove	1	2010	Big Injun (undiff)	903
470950182	WV	Tyler	39.37864113	-80.8357641		not available	John Mercer	1	1841	Big Injun (undiff)	770
4709500308	WV	Tyler	39.37907618	-80.83782105							774



ZONE A

18

Camp

Mistake

Run

Middle Island Creek

18

**TYLER COUNTY
INCORPORATED AREAS
540277**

18

56

4709502649

WW-9
(4/16)

4709502649

API Number 47 - 095 - 03649
Operator's Well No. SHR38JHSM

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 494456046

Watershed (HUC 10) Headwaters Middle Island Creek Quadrangle West Union

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: no pits

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 47-001-00561, 47-097-01514, 47-097-01613, 34-013-2-0609)
- Reuse (at API Number SHR37 wells API TBD)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No Pits)

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.
Vertical: air from spud surface to curve kick off point (KOP)
Horizontal: synthetic oil-based mud (SOBM) from curve KOP to lateral TD

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Bactericide, Polymers, and Weighting Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.
Per DEP approval. Land application of soil
conductor cuttings only. All other
cuttings will be sent to an approved landfill.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? See attached.

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 Erika J Whetstone

Company Official (Typed Name) Erika Whetstone

Company Official Title Manager - Permitting

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OCT 01 2019
WV Department of
Environmental Protection

Subscribed and sworn before me this 27th day of Sept, 2019

Sara M Micoli

My commission expires 03/11/2023

Commonwealth of Pennsylvania - Notary Seal
Sara M. Micoli, Notary Public
Washington County
My commission expires March 11, 2023
Commission number 1288863
Member, Pennsylvania Association of Notaries

CNX Gas Company, LLC

Proposed Revegetation Treatment: Acres Disturbed 15.57 Prevegetation pH 6.5

Lime according to pH test Tons/acre or to correct to pH 7.0

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch hay or straw @ 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Orchard Grass	25
Birdsfoot Trefoil	15	Birdsfoot Trefoil	15
Ladino Clover	10	Ladino Clover	10

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: _____

Comments: _____

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OCT 01 2019

WV Department of
Environmental Protection

Title: _____

Date: _____

Field Reviewed? () Yes

() No

4709502649

Disclaimer: Vendors have been approved for the below category by ENV. UPDATED AGREEMENT with MSCM MUST BE CONFIRMED.

USE APPROVED NON-HAZARDOUS WASTE DISPOSAL FACILITIES (version 05-23-2016)

Republic Services (Allied Waste) Industrial Landfills		Gas Specific Waste Streams			Other Accepted Waste Streams									Contact Information
Landfill	Location	Drill * Casing	Waste Liners	Waste Brine	Contaminated Soil (Including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Frangible Asbestos	Non-Frangible Asbestos	Process Waste	Solidification Services	Municipal Solid Waste	
Melrose County	Bloomington	IL	X	X	X	X	X	X	X	X	X	X	X	X
BRC/Coles County	Charleston	IL	X	X	X	X	X	X	X	X	X	X	X	X
Brickyard Disposal	Danville	IL	X	X	X	X	X	X	X	X	X	X	X	X
Southern Illinois Regional	De Soto	IL	X	X	X	X	X	X	X	X	X	X	X	X
Lee County	Dixon	IL	X	X	X	X	X	X	X	X	X	X	X	X
Upper Rock Island	East Moline	IL	X	X	X	X	X	X	X	X	X	X	X	X
Boed County	Greenville	IL	X	X	X	X	X	X	X	X	X	X	X	X
Illinois	Herrington	IL	X	X	X	X	X	X	X	X	X	X	X	X
LandCom	LaSalle	IL	X	X	X	X	X	X	X	X	X	X	X	X
Litchfield-Hillsboro	Litchfield	IL	X	X	X	X	X	X	X	X	X	X	X	X
Envisiontech	Morris	IL	X	X	X	X	X	X	X	X	X	X	X	X
Livingston	Pontiac	IL	X	X	X	X	X	X	X	X	X	X	X	X
Roxana	Roxana	IL	X	X	X	X	X	X	X	X	X	X	X	X
Sauaman Valley	Springfield	IL	X	X	X	X	X	X	X	X	X	X	X	X
Benson Valley	Frankfort	KY	X	X	X	X	X	X	X	X	X	X	X	X
Blue Ridge	Irvine	KY	X	X	X	X	X	X	X	X	X	X	X	X
Morehead	Morehead	KY	X	X	X	X	X	X	X	X	X	X	X	X
Green Valley	Rush	KY	X	X	X	X	X	X	X	X	X	X	X	X
Cherokee Run	Bellefontaine	OH	X	X	X	X	X	X	X	X	X	X	X	X
Williams County	Bryan	OH	X	X	X	X	X	X	X	X	X	X	X	X
County Environmental	Carey	OH	X	X	X	X	X	X	X	X	X	X	X	X
Celina	Celina	OH	X	X	X	X	X	X	X	X	X	X	X	X
Carbon-Limestone**	Lowellville	OH	X	X	X	X	X	X	X	X	X	X	X	X
Countywide Landfill**	East Sparta	OH	X	X	X	X	X	X	X	X	X	X	X	X
Lorain County	Oberlin	OH	X	X	X	X	X	X	X	X	X	X	X	X
Oakland Marsh	Shiloh	OH	X	X	X	X	X	X	X	X	X	X	X	X
Imperial	Imperial	PA	X	X	X	X	X	X	X	X	X	X	X	X
Conestoga	Mariontown	PA	X	X	X	X	X	X	X	X	X	X	X	X
Brunswick	Lawrenceville	VA	X	X	X	X	X	X	X	X	X	X	X	X
King and Queen	Little Plymouth	VA	X	X	X	X	X	X	X	X	X	X	X	X
Old Dominion	Richmond	VA	X	X	X	X	X	X	X	X	X	X	X	X
Sycamore	Hurricane	WV	X	X	X	X	X	X	X	X	X	X	X	X
Short Creek	Wheeling (Short Creek)	WV	X	X	X	X	X	X	X	X	X	X	X	X
Carter Valley	Church Hill	IN	X	X	X	X	X	X	X	X	X	X	X	X

317-921-1667 or 480-627-2700
1-800-634-0215

Jack Palermo:
work: 330-536-8013
cell: 330-806-9650

Barbara Harsanyi:
work: 330-536-8013 x 120
cell: 330-423-7267

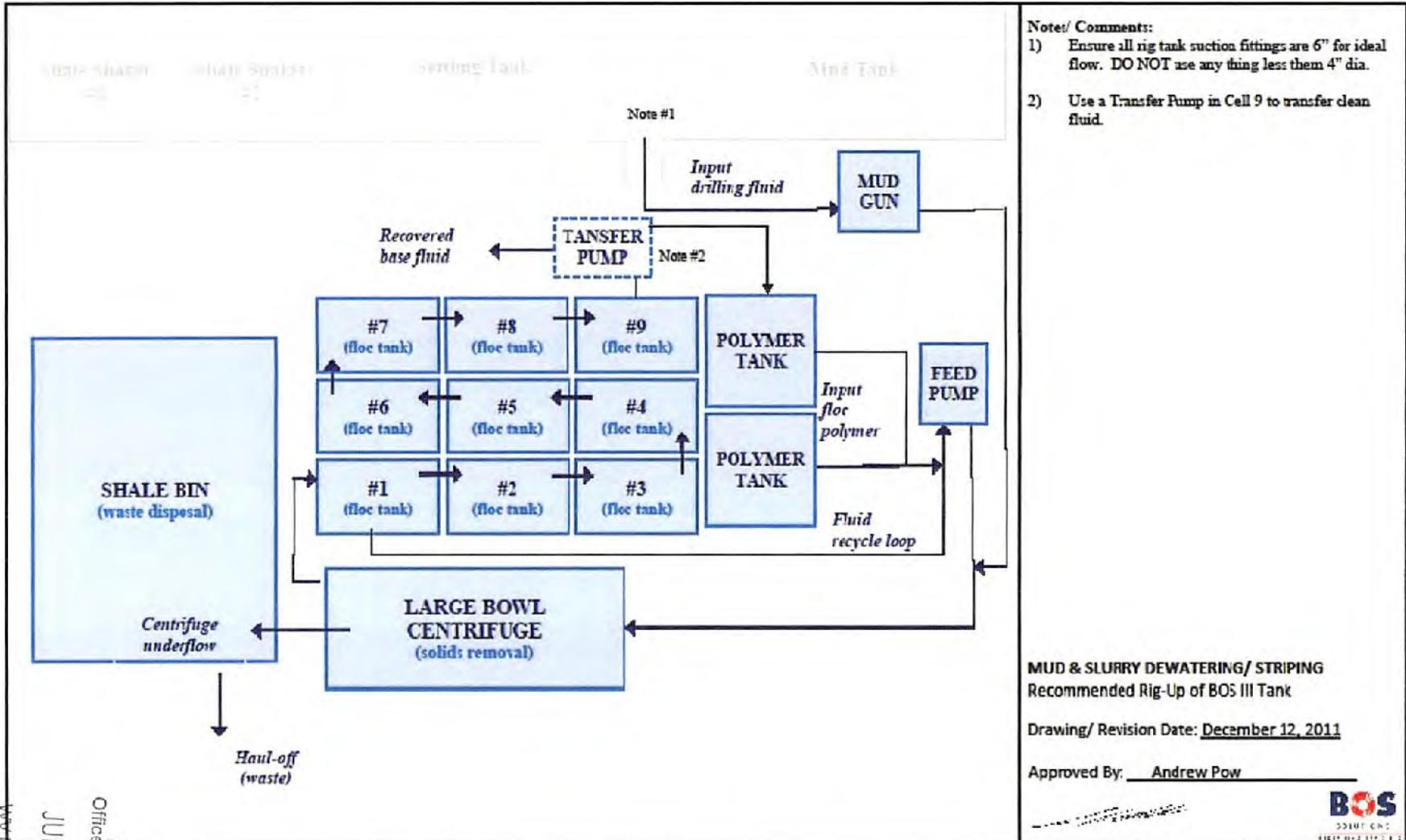
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Environmental Protection

Waste Management Industrial Landfills		Gas Specific Waste Streams			Other Accepted Waste Streams										Contact Information
Landfill	Location	Drill * Cuttings	Waste Liners	Waste Brine	Contaminated Soil (including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Friable Asbestos	Non-Friable Asbestos	Process Waste	Solidification Services	Municipal Solid Waste		
Arden Landfill	Washington	PA	X	X											
South Hills (Armoni)	South Park	PA	X	X	X	X	X	X			X	X	X		
Kelly Run	Elizabeth	PA	X	X		X	X	X			X	X	X		
Valley Landfill	Inwa	PA	X	X	X	X	X	X			X	X	X		
Evergreen Landfill	Blairsville	PA	X	X	X	X	X	X		X	X	X	X		
Charleston Landfill	Charleston	WV	X	X	X	X	X	X			X	X	X		
(Karamba Comm.)	Charleston	WV	X	X	X	X	X	X			X	X	X		
Meadow Hill Landfill	Bridgeport	WV	X	X	X	X	X	X			X	X	X		
Northwestern Landfill	Parkersburg	WV	X	X	X	X	X	X	X	X	X	X	X		
S&S Grading Landfill	Clarksburg	WV	X	X	X	X	X	X			X	X	X		
American Landfill	Waverly	OH	X	X	X	X	X	X			X	X	X		
Suburban RDF	Glenford	OH	X	X	X	X	X	X	X	X	X	X	X		
Conchoxion Landfill***	Conchoxion	OH	X	X	X	X	X	X	X	X	X	X	X		
Milheims Landfill	New Springfield	OH	X	X	X	X	X	X			X	X	X		
Additional Landfills															
Landfill	Location	Drill * Cuttings	Waste Liners	Waste Brine	Contaminated Soil (including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Friable Asbestos	Non-Friable Asbestos	Process Waste	Solidification Services	Municipal Solid Waste	Contact Information	
Westmoreland Waste (WWLC Group)	111 Conner Lane, Belle Vernon, PA 15012	PA	X	X	X	X	X	X	X	X		X	X	Mike Home: 412-552-4427 Mark Thomas: 724-929-7694	
MAX Environmental (Lester Facility)	200 Max Drive, Bellefonte, PA 16810	PA	X	X	X	X	X	X				X	X	Carl Spadaro: 412-343-4900 cell: 412-445-9789	
MAX Environmental (Yakon Facility)	233 MAX Lane, Yakon, PA 15698	PA	X	X	X	X	X	X				X	X	Carl Spadaro: 412-343-4900 cell: 412-445-9789	
Apex Sanitary Landfill (Apex Environmental)	11 County Road 78, Amsterdam, Ohio 43003	OH	X	X	X	X	X	X				X	X	Joe Teterick: 740-275-2887 joe@eis-company.com	
Rumpke, Mt. Sterling (Rumpke Consolidated)	30 Larison Rd., Jeffersonville, KY 40337	KY	X	X	X	X	X	X				X	X	Carl Walter: 513-623-2471	
Laurel Ridge Landfill (Waste Connections of KY)	3612 E State Highway 552, Ith, KY 40340	KY	X	X	X	X	X	X	X	X	X		X	Bruce Crouch: Work: 606-864-7996 Cell: 606-219-0261	
Advanced Disposal	Chestnut Valley 1184 McClellandtown Rd, McClellandtown, PA 15458	PA	X	X	X	X	X	X					X	Tony Labenne 6184 Route 219, Brockway, PA 15824 814-590-9906	
	Greentree Landfill; 635 Toby Rd.; Kessey, PA	PA	X	X	X	X	X	X					X		
	Moskoller Landfill; 7035 Glades Pike Rd.; Somerset, PA	PA	X	X	X	X	X	X					X		

** Ohio "TENORM" - requires Radium 226/228 analysis by load before leaving the well pad. Solid waste landfills in Ohio can only accept TENORM waste with combined concentration less than 1 picocuries per gram above the natural background level.
 *** Accepts drilling wastes but profile for disposal is not currently completed.
 X Waste stream accepted by facility.
 Waste stream is not or may not be accepted by facility. Contact facility directly to verify waste streams accepted.
 Note: New PA DEP rules regarding "TENORM" testing requirements are pending.
 * Drill Cuttings include frac sand for the purpose of this table (Contact facility directly to verify waste streams accepted).

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FLOW CHART MUD AND SLURRY DEWATERING RECOMMENDED RIG UP



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 July 24 2019
 Department of
 Environmental Protection

4709502649

WW-9
(4/16)

API Number 47 - _____ - _____

Operator's Well No. SHR38JHSM

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) Headwaters Middle Island Creek Quadrangle West Union

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: no pits

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 47-001-00561, 47-097-01514, 47-097-01613, 34-013-2-0609)
- Reuse (at API Number SHR35 wells API TBD)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No Pits)

Handwritten signature and date: 7/24/2019

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

Vertical air from spudsite to curve kick-off point (KOP).
Horizontal: synthetic oil-based mud (SOBM) from curve KOP to lateral TD

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Bactericide, Polymers, and Weighting Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Cuttings will be taken to an approved landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? See attached.

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.

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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 *Erika Whetstone*
Company Official (Typed Name) ERIKA WHETSTONE
Company Official Title PERMITTING MANAGER

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Office of Oil and Gas

JUL 24 2019

WV Department of
Environmental Protection

Commonwealth of Pennsylvania County of Washington
Subscribed and sworn before me this 23rd day of July, 2019
Lori L. Walker
Notary Public

Commonwealth of Pennsylvania - Notary Seal
Lori L. Walker, Notary Public
Greene County
My commission expires February 23, 2023
Commission number 1260781
Member, Pennsylvania Association of Notaries

My commission expires February 23, 2023

CNX Gas Company, LLC

Proposed Revegetation Treatment: Acres Disturbed 15.57 Prevegetation pH 6.5

Lime according to pH test Tons/acre or to correct to pH 7.0

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch hay or straw @ 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Orchard Grass	25
Birdsfoot Trefoil	15	Birdsfoot Trefoil	15
Ladino Clover	10	Ladino Clover	10

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: [Signature]

Comments: _____

Title: Oil & Gas Inspector

Date: 7/27/2019

Field Reviewed? () Yes () No

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Office of Oil and Gas
JUL 24 2019

Disclaimer: Vendors have been approved for the below category by ENV. UPDATED AGREEMENT with MSCM MUST BE CONFIRMED.

HSE APPROVED NON-HAZARDOUS WASTE DISPOSAL FACILITIES (version 05-23-2016)

Republic Services (Allied Waste) Industrial Landfills		Gas Specific Waste Streams			Other Accepted Waste Streams								Contact Information
Landfill	Location	Drill * Casing	Waste Liners	Waste Brine	Contaminated Soil (Including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Friable Asbestos	Non-Friable Asbestos	Process Waste	Solidification Strokes	
McLean County	Bloomington	IL	X	X	X	X	X	X	X	X	X	X	X
ERC/Coles County	Charleston	IL	X	X	X	X	X	X	X	X	X	X	X
Briarwood Disposal	Danville	IL	X	X	X	X	X	X	X	X	X	X	X
Southern Illinois Regional	De Soto	IL											X
Lee County	Dixon	IL	X	X	X	X	X	X	X	X	X	X	X
Upper Rock Inland	East Moline	IL	X	X	X	X	X	X	X	X	X	X	X
Boad County	Greensville	IL	X	X	X	X	X	X	X	X	X	X	X
Illinois	Hoopeston	IL	X	X	X	X	X	X	X	X	X	X	X
LandComp	LaSalle	IL	X	X	X	X	X	X	X	X	X	X	X
Litchfield-Hillsboro	Litchfield	IL	X	X	X	X	X	X	X	X	X	X	X
Envirotech	Morris	IL	X	X	X	X	X	X	X	X	X	X	X
Livingston	Pontiac	IL	X	X	X	X	X	X	X	X	X	X	X
Roxana	Roxana	IL	X	X	X	X	X	X	X	X	X	X	X
Sangamon Valley	Springfield	IL	X	X	X	X	X	X	X	X	X	X	X
Benson Valley	Frankfort	KY	X	X	X	X	X	X	X	X	X	X	X
Blue Ridge	Irvine	KY	X	X	X	X	X	X	X	X	X	X	X
Morehead	Morehead	KY	X	X	X	X	X	X	X	X	X	X	X
Green Valley	Rush	KY	X	X	X	X	X	X	X	X	X	X	X
Cheekoe Run	Bellefontaine	OH			X	X	X	X	X	X	X	X	X
Williams County	Bryan	OH			X	X	X	X	X	X	X	X	X
County Environmental	Carey	OH			X	X	X	X	X	X	X	X	X
Celina	Celina	OH			X	X	X	X	X	X	X	X	X
Carbon-Limestone**	Lowellville	OH	X	X	X	X	X	X	X	X	X	X	X
Countyside Landfill**	East Sparta	OH	X	X	X	X	X	X	X	X	X	X	X
Lorain County	Oberlin	OH			X	X	X	X	X	X	X	X	X
Oakland Marsh	Shiloh	OH			X	X	X	X	X	X	X	X	X
Imperial	Imperial	PA			X	X	X	X	X	X	X	X	X
Conestoga	Morantown	PA			X	X	X	X	X	X	X	X	X
Branswick	Lawrenceville	VA			X	X	X	X	X	X	X	X	X
King and Queen	Little Plymouth	VA			X	X	X	X	X	X	X	X	X
Old Dominion	Richmond	VA			X	X	X	X	X	X	X	X	X
Sycamore	Hurricane	WV			X	X	X	X	X	X	X	X	X
Short Creek	Wheeling (Short Creek)	WV	X	X	X	X	X	X	X	X	X	X	X
Carver Valley	Church Hill	TN											X

317-921-1667 or 480-627-2700
1-800-634-0215

Jack Palermo:
work: 330-536-8013
cell: 330-806-9660

Barbara Huzany:
work: 330-536-8013 x 120
cell: 330-423-7267

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Waste Management Industrial Landfills		Gas Specific Waste Streams			Other Accepted Waste Streams									Contact Information
Landfill	Location	Drill * Cuttings	Waste Liners	Waste Brine	Contaminated Soil (Including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Friable Asbestos	Non-Friable Asbestos	Process Waste	Solidification Services	Municipal Solid Waste	
Arden Landfill	Washington	PA	X	X	X	X	X	X			X	X	X	Scott Allen: 412-604-2256
South Hills (Armoni)	South Park	PA	X	X		X	X	X			X	X	X	
Kelly Run	Elizabeth	PA	X	X	X	X	X	X			X	X	X	
Valley Landfill	Irwin	PA	X	X	X	X	X	X	X	X	X	X	X	
Evergreen Landfill	Blainsville	PA	X	X	X	X	X						X	
Charleston Landfill (Kanawha County)	Charleston	WV	X	X	X	X	X	X			X		X	
Meadowhill Landfill	Bridgetown	WV	X	X	X	X	X	X	X	X	X	X	X	
Northwestern Landfill	Parkersburg	WV	X	X	X	X	X	X			X	X	X	
S&S Grading Landfill	Clarksburg	WV	X	X	X	X	X	X			X		X	
American Landfill	Waynesburg	OH	X	X	X	X	X	X	X	X	X	X	X	
Suburban RDF	Glenford	OH	X	X	X	X	X	X	X	X	X	X	X	
Coshocton Landfill***	Coshocton	OH	X	X	X	X	X						X	
Mahoning Landfill	New Springfield	OH	X	X	X	X	X			X	X		X	

Additional Landfills		Gas Specific Waste Streams			Other Accepted Waste Streams									Contact Information
Landfill	Location	Drill* Cuttings	Waste Liners	Waste Brine	Contaminated Soil (Including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Friable Asbestos	Non-Friable Asbestos	Process Waste	Solidification Services	Municipal Solid Waste	
Westmoreland Waste (WWLC Group)	111 Conner Lane, Belle Vernon, PA 15012	PA	X	X	X	X	X	X	X	X		X	X	Mike Home: 412-552-4427 Mark Thomas: 724-929-7694
MAX Environmental (Palmer Facility)	200 Max Drive, Palmer, PA 15019	PA	X	X	X	X	X	X				X	X	Carl Spadaro: 412-343-4900 cell: 412-445-9789
MAX Environmental (Yukon Facility)	233 MAX Lane Yukon, PA 15698	PA	X	X	X	X	X	X				X	X	
Apex Sanitary Landfill (Apex Environmental)	11 County Road 78 Amsterdam, Ohio 43903	OH	X	X	X	X	X	X				X	X	Joe Teterick: 740-275-2887 joet@eis-company.com
Rumpke, Mt. Sterling (Rumpke Consolidated)	30 Larison Rd, Jeffersonville, KY 40337	KY	X	X	X	X	X		X	X			X	Carl Walter: 513-623-2471
Laurel Ridge Landfill (Waste Connections of KY)	3612 E State Highway 552 I.D., KY 40740	KY	X	X	X	X	X		X	X	X		X	Bruce Crouch: Work: 606-864-7996 Cell: 606-219-0261
Advanced Disposal	Chestnut Valley 1184 McClellandtown Rd, McClellandtown, PA 15458	PA	X	X	X	X	X	X					X	Tony Labenne 6184 Route 219, Brockway, PA 15824 814-590-9906
	Greentree Landfill; 635 Toby Rd.; Kesse, PA	PA	X	X	X	X	X	X					X	
	Mostoller Landfill; 7055 Glades Pike Rd.; Somerset, PA	PA	X	X	X	X	X	X					X	

** Ohio "TENORM" - requires Radium 226/228 analysis by load before leaving the well pad. Solid waste landfills in Ohio can only accept TENORM waste with combined concentration less than 5 picocuries per gram above the natural background level.

*** Accepts drilling wastes but profile for disposal is not currently completed.

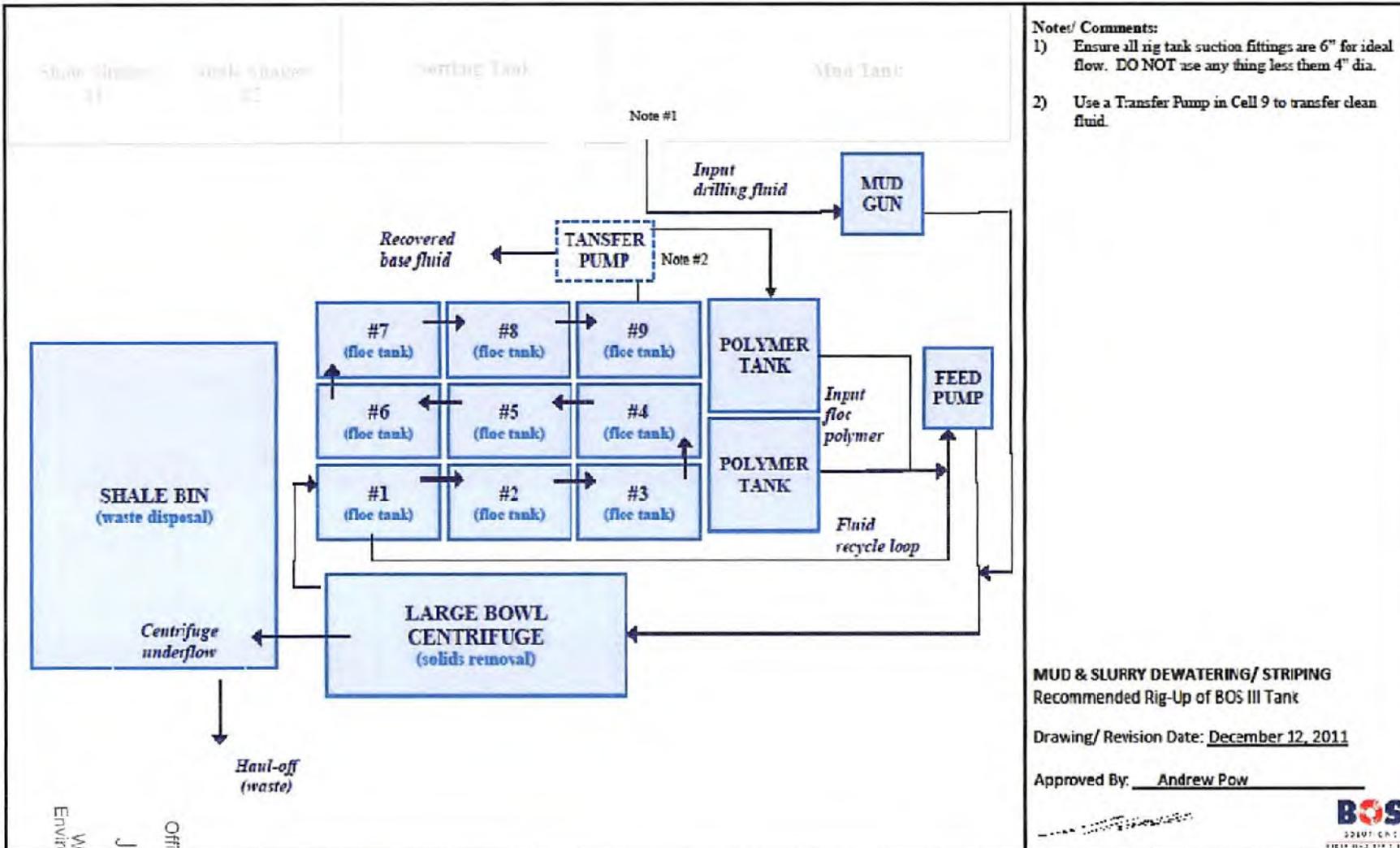
X Waste stream accepted by facility.

Waste stream is not or may not be accepted by facility. Contact facility directly to verify waste streams accepted.

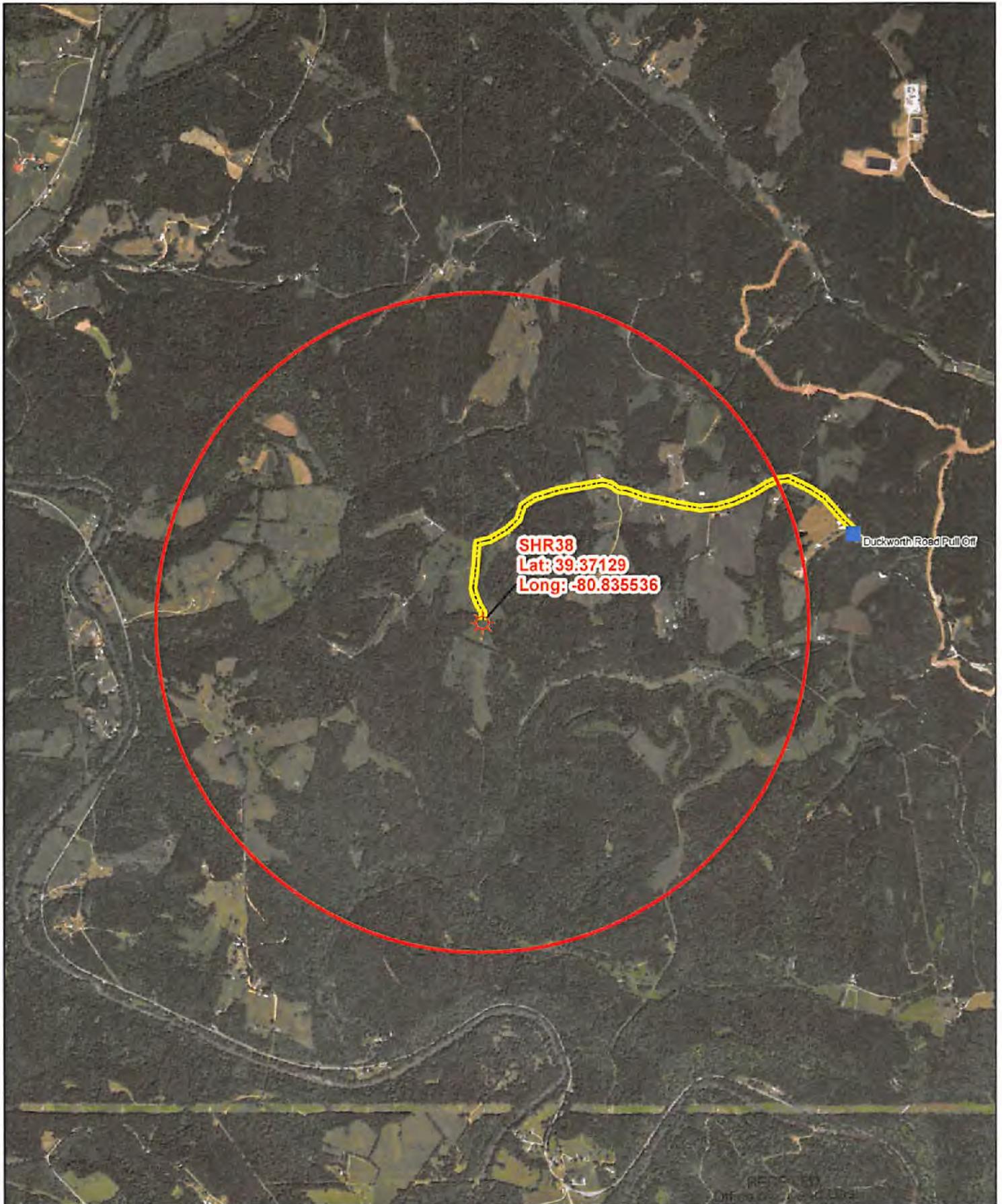
New PADEP rules regarding "TENORM" testing requirement are pending.

Notes: * Drill Cuttings include frac sand for the purpose of this table (Contact facility directly to verify waste streams accepted).

FLOW CHART MUD AND SLURRY DEWATERING RECOMMENDED RIG UP



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SHR38
Lat: 39.37129
Long: -80.835536

Duckworth Road Pull Off

<ul style="list-style-type: none">  Well Site  Evacuation Point  1 Mile Evacuation Buffer  Evacuation Route 	<p>SHR38 Evacuation Route</p> <p><i>Exit the Pad Site heading North via the Access Road. Turn Right onto Jefferson Run/Wilbur Hill Rd heading towards Duckworth Road (Roughly 1.5 miles). Meet at pull off near the Road intersection.</i></p>	<p>Scale: 0 200 400 600 800 1000 1200 1400 1600 1800 2000 1 inch = 2,000 feet</p> <p>Date: 4/18/2018 Revisions: 1</p> <p>Prepared By: GIS Approved By: Environment</p> <p><small>This map is property of CONSOL Energy Inc. and contains information that is proprietary and confidential in nature and may not be copied or reproduced without prior written consent.</small></p>	<p>JUL 24 2018 CONSOL ENERGY</p> <p>WV Department of Environmental Protection</p> <p>SHR38 Site Evacuation Plan</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------

DRIVING DIRECTIONS FOR CNX SHR38 WELL SITE

From interstate 79 North at Clarksburg WV, take exit 119 toward Clarksburg.

Continue west on US-50 for 29 miles.

Turn right onto WV-18 N toward West Union. 0.6 miles.

Turn left onto Davis St / Old US-50W, continue to follow Davis St, 0.4 miles.

Turn right onto WV-18 N / Sistersville Pike, continue to follow 18N, 5.5 miles.

Slight right onto Slaughter Run Road, 1.6 mi.

Left turn onto Camp Mistake Road, 430 ft.

Keep right to continue on Jefferson Run-Wilbur Hill Road, 1.2 mi.

Turn left to stay on Jefferson Run-Wilbur Hill Road, 1.2 mi.

Continue onto Duckworth Ridge, 0.7 mi.

Entrance to well site on left.

NEAREST FIRE STATION:

Alma Volunteer Fire Department

Alma, WV

(304) 758-4066

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Landowners within 1 mile

Tax ID	Owner	Address	City	State	Phone
05-21-31	DOLL BOBBY D	ROUTE 58	ALMA	WV	304-758-2151
01-16-32	BOWMAN KRISTIAN K. & TIFFANY A.	ROUTE 58/2	ALMA	WV	(321) 557-4311 (304) 628-3229 (must confirm you are not a telemarketer before call is transferred)
05-21-43	NICHOLS JANICE K	ROUTE 58	ALMA	WV	(304) 472-6758
01-16-1	WRIGHT KENNETH G.	ROUTE 50	ALMA	WV	(904) 347-4876, (904) 880-1804
01-18-1	MALICKI STEVEN E JR	ROUTE 52/1	ALMA	WV	(740) 373-7357
01-15-3	ASH ROY DEAN	MIDDLE CR IS	ALMA	WV	(440) 725-3093
01-13-4	CECIL DENNIS ELMER	ROUTE 50	ALMA	WV	(304) 363-0824
01-15-4	PRESTON DAVID & MARY ANN	ROUTE 18/15	ALMA	WV	(304) 871-6417
01-16-5	LATTEA CHRISTOPHER HARRIS DANNY CARL & PATRICIA J	ROUTE 58/2	ALMA	WV	(304) 871-6417
01-18-5		MISTAKE CP	ALMA	WV	304-873-1540 (706) 769-9231, (770) 513- 4208
01-13-6	DOLVIN PAUL	ROUTE 50	ALMA	WV	(973) 875-9679
01-18-6	CONRAD FRED A & JOY J	ROUTE 18	ALMA	WV	(410) 687-0417
01-13-7	DANIELS WILLIAM N & MARY C	ROUTE 50	ALMA	WV	(304) 758-2978
01-16-7	DOHRMANN FRIEDERIKE	74 HCR BOX 18	ALMA	WV	No Accurate Number(s) located
05-21-7	EIDLE TABITHA R	ROUTE 58	ALMA	WV	(304) 758-2730
05-21-8	HAUGHT PERRY J. JR.	ROUTE 58	ALMA	WV	(509) 647-5337
01-16-9	WILBUR COMMUNITY CLUB	ROUTE 58/2	ALMA	WV	(904) 910-4625
05-21-9	WILMOTH DONNIE N & KIM M.	ROUTE 58	ALMA	WV	(304) 758-0490
01-16-10	BARTRUG CHASE E CLARK SANDRA SUE & CLARENCE D. & CLARK JEFFREY GRE	74 HC BOX 19	ALMA	WV	(304) 758-2226 No Accurate Number(s) located
01-15-11		ROUTE 18	ALMA	WV	(304) 758-2226 No Accurate Number(s) located
01-16-11	DOLL WILLIAM R	ROUTE 58/2	ALMA	WV	(304) 758-2151
05-21-11	DOLL BOBBY D & RITA L.	ROUTE 58	ALMA	WV	(304) 758-0088
01-16-13	COSTILOW CONRAD	WILBUR RDG	ALMA	WV	(740) 359-5516
01-16-15	PROSSOR MARK A	WILBUR RDG	ALMA	WV	(304) 758-2221
01-15-16	KAHLER MARY J (LIFE)	ROUTE 58/2	ALMA	WV	(304) 758-2119
01-16-16	HOOVER JEFFERY E	L C M RUN	ALMA	WV	(304) 758-2119
01-16-17	METCALF RICHARD H & YVONNE	128 VILLAGE DR	ALMA	WV	(229) 925-2643
01-16-18	BOGER DIANA ROWLAND RONALD R & REVA D	L C MISTAKE	ALMA	WV	(304) 829-4895
01-16-20		ROUTE 58/2	ALMA	WV	(304) 873-1272
01-12-22	MOORE LAWRENCE DEAN	ROUTE 50	ALMA	WV	(304) 342-6605
01-16-22	PETER NORMAN E & DONNA J	CAMP MISTAKE RUN	ALMA	WV	(304) 758-4495 (330) 725-6916; (440) 725- 6916
01-12-23	LIND RYAN J & SUSAN J BAUM CHRIS & HERSTINE	ROUTE 50	ALMA	WV	(330) 866-2605
01-16-23	LYNN K JR.	ROUTE 52	ALMA	WV	Deceased as of 3/1/2017
01-16-24	LORKOVICH LEONA	ROUTE 52KE	ALMA	WV	(304) 337-2673
05-18-24	MEANS JAMES B.	ROUTE 58	ALMA	WV	No Accurate Number(s) located
01-16-25	DAVIS PEARLIE	CAMP MISTAKE RUN	ALMA	WV	No Accurate Number(s) located

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01-16-26	THACKER D RALPH & CARLISLE J MAURICE JR	20021 THACKER DR	ALMA	WV	(301) 432-4441
01-16-29	WEEKLEY PAUL STONEKING L BRUCE & SANDRA JEAN	MISTAKE CP ROUTE 58	ALMA	WV	(304) 758-2172
05-21-29			ALMA	WV	(304) 636-5172
01-12-22.1	SMITH BRUCE & VERONICA	ROUTE 50	ALMA	WV	(304) 758-2042
01-13-13.5	ASH MATTHEW & ASH ZETTA (LIFE)	ROUTE 50	ALMA	WV	No Accurate Number(s) located Eric: (301) 933-0565 Bryce Snyder is deceased as of 2015
01-13-7.1	SNYDER ERIC A & BRYCE M	ROUTE 50	ALMA	WV	
01-15-6.1	CLARK DUANE ET AL	ROUTE 18	ALMA	WV	(304) 758-2226
01-16-14.2	ANDERS JOHN R & SANDRA F.		ALMA	WV	(304) 243-5849
01-16-19.1	ASH JAMES E	ROUTE 58/2	ALMA	WV	(304) 758-2498
01-16-24.2	STONEWALL GAS COMPANY	ROUTE 52	ALMA	WV	(304) 269-7045
01-16-4.1	DAVIS BRADLEY DEAN	ROUTE 58/2	ALMA	WV	(304) 758-2672
01-16-8.1	WILBUR CHAPEL (E U B CHURCH)	WILBUR	ALMA	WV	(304) 659-2249 (Trustee's Number)
01-16-9.1	WILBUR CEMETERY	WILBUR	ALMA	WV	(304) 659-2249 (Trustee's Number)
05-21-4.1	WEEKLEY TERRY G.		ALMA	WV	(304) 758-2927
05-21-9.1	DOLL BILLY JOE	ROUTE 58	ALMA	WV	(304) 758-2002

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Site Safety Plan for Well SHR38JHSM CNX Gas Company, LLC.



Office of Oil and Gas

JUL 24 2019

1

WV Department of
Environmental Protection

CB 7/22/19

Approval Sheet

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

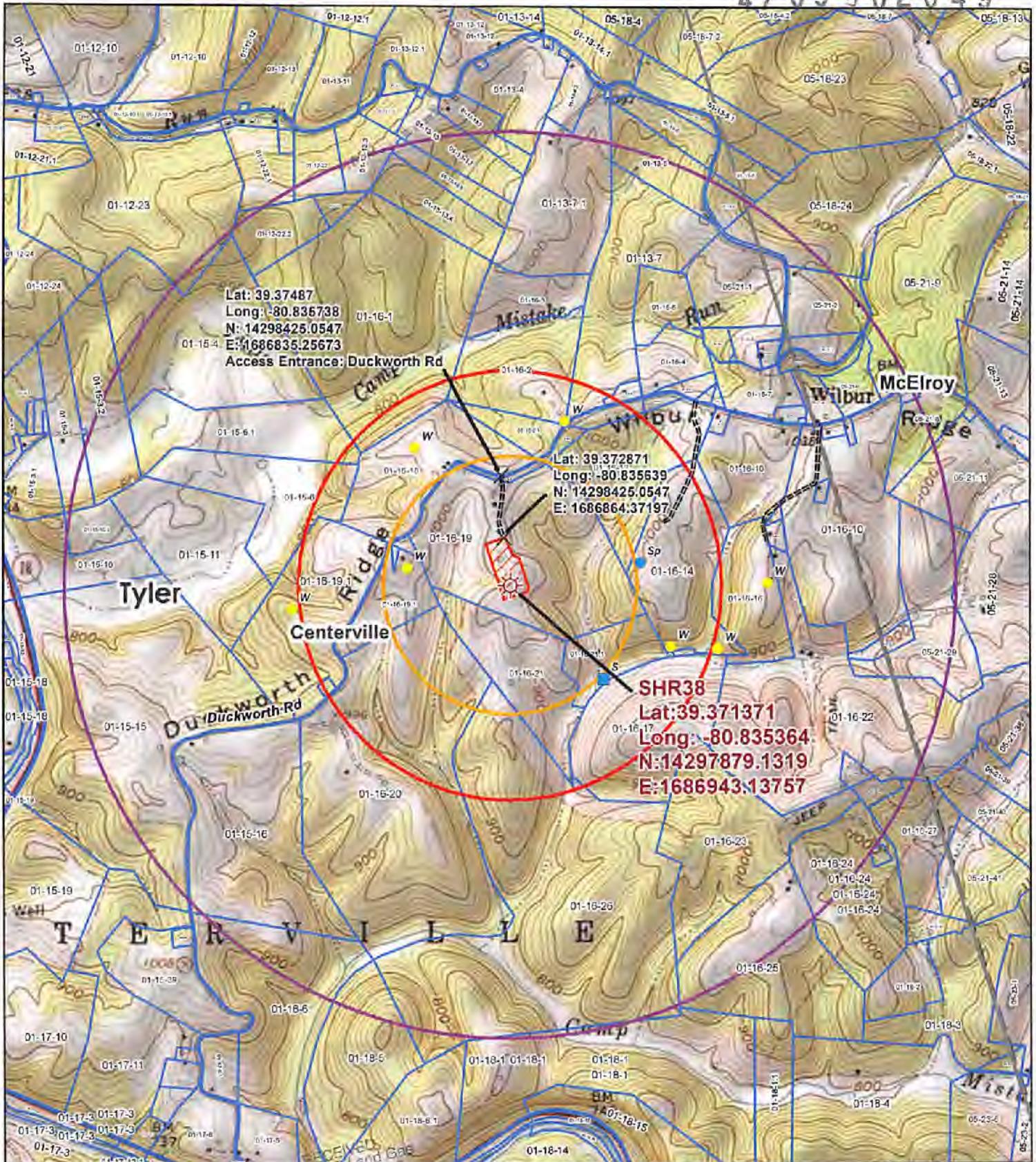
And

West Virginia Oil and Gas Conservation Commission.

Approved this day _____ of month _____, 20__ by

Date: _____

Date: _____



Lat: 39.37487
 Long: -80.836738
 N: 14298425.0547
 E: 1686835.25673
 Access Entrance: Duckworth Rd

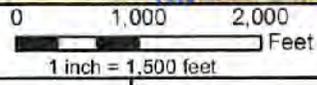
Lat: 39.372871
 Long: -80.835639
 N: 14298425.0547
 E: 1686864.37197

SHR38
 Lat: 39.371371
 Long: -80.835364
 N: 14297879.1319
 E: 1686943.13757

Legend

- Wellbore
- Access Points
- Sp
- St
- W
- Access Road
- Surface Parcel
- Well Pad
- 1,500 Foot Buffer
- 2,500 Foot Buffer
- 1 Mile Buffer

Office of
 JUL 24 2011
 Department of
 Environmental Protection



Original Date: 5/8/2018

Prepared By: GIS

Revision Date: 5/8/2018

Approved By: GIS

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Topographic Well Map
SHR38

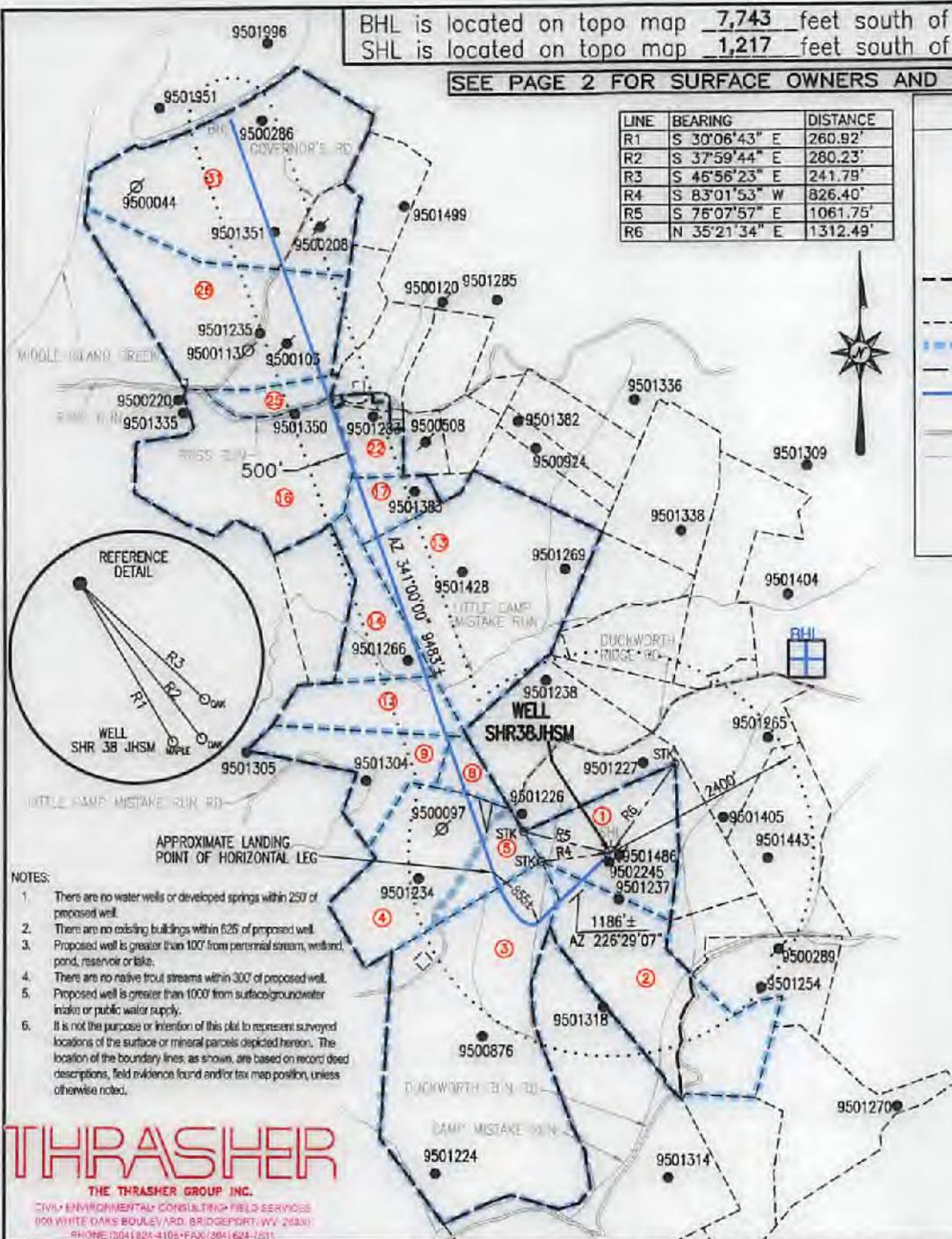
BHL is located on topo map 7,743 feet south of Latitude: 39°25'00"
 SHL is located on topo map 1,217 feet south of Latitude: 39°22'30"

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

LINE	BEARING	DISTANCE
R1	S 30°06'43" E	260.92'
R2	S 37°59'44" E	280.23'
R3	S 45°56'23" E	241.79'
R4	S 83°01'53" W	826.40'
R5	S 76°07'57" E	1061.75'
R6	N 35°21'34" E	1312.49'

LEGEND

- TOPO MAP POINT
 - WELL
 - ALL ARE POINTS UNLESS OTHERWISE NOTED.
 - LEASE NUMBER
 - MINERAL TRACT BOUNDARY
 - PARCEL LINES
 - LEASE BOUNDARY
 - WELL REFERENCE
 - PROPOSED HORIZONTAL WELL
 - ROAD
 - STREAM CENTER LINE
- GAS WELLS**
- EXISTING WELLS
 - PLUGGED WELLS
 - ABANDON WELLS



SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83
 N:4358034.06
 E:514179.72
 NAD83, WV NORTH
 N:320287.264
 E:1591001.515
 LAT/LON DATUM-NAD83
 LAT:39°22'17.967"
 LON:80°50'07.374"

APPROX. LANDING POINT
 UTM 17-NAD83
 N:4357946.49
 E:513455.23
 NAD83, WV NORTH
 N:320039.590
 E:1588619.286
 LAT/LON DATUM-NAD83
 LAT:39°22'15.316"
 LON:80°50'24.927"

BOTTOM HOLE LOCATION (BHL)
 UTM 17-NAD83
 N:4360667.61
 E:512773.68
 NAD83, WV NORTH
 N:329005.292
 E:1586531.806
 LAT/LON DATUM-NAD83
 LAT:39°23'43.475"
 LON:80°51'05.957"

- 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.

THRASHER
 THE THRASHER GROUP INC.

CIVIL/ENVIRONMENTAL CONSULTING/FIELD SERVICES
 909 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 824-4104 FAX (304) 624-7331

FILE #: SHR 38 JHSM
 DRAWING #: SHR 38 JHSM
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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: George D. Six

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: JULY 3, 2019
 OPERATOR'S WELL #: SHR 38 JHSM
 API WELL #: 47 95 02649
 STATE COUNTY PERMIT

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

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 1012'±
 COUNTY/DISTRICT: TYLER / CENTERVILLE QUADRANGLE: WEST UNION, WV 7.5'
 SURFACE OWNER: JAMES E. ASH ET AL ACREAGE: 111±
 OIL & GAS ROYALTY OWNER: JAMES E. ASH ET AL ACREAGE: 842.292±

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: 6,480'± TMD: 16,666'±
 WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT ANTHONY KENDZIORA
 Address 1000 CONSOL ENERGY DRIVE Address 1000 CONSOL ENERGY DRIVE
 City CANONSBURG State PA Zip Code 15317 City CANONSBURG State PA Zip Code 15317

SHR 38 JHSM

PAGE 2 OF 2

SURFACE OWNER	LESSOR	DIST-TM/PAR
1 JAMES E. ASH ET AL	VERNA O. ASH, JAMES E. ASH AND THELMA B. ASH, BESSIE HAUGHT AND HAROLD WARNER ERNEST G. SECKMAN AND D. JOANNE SECKMAN RALPH E. PHILLIPS AND VELINDA PHILLIPS H/W	P/O 1-16/19
2 JOHN R. ANDERS, II	JOHN MICHAEL LEONIAN JOSEPH ROBERT LEONIAN MARGO L. KIEHL AND CHARLES F. KIEHL, W/H BERDINA ROSE AND NORMAN W. ROSE, W/H PHILIP LEONIAN, AKA PHILIP MARSHALL LEONIAN MARION RAY BACHELOR, AKA MARION R. BACHELOR AND GLORIA JEAN BACHELOR, H/W RITA G. JARVIS MIKE ROSS, INC. L. L. MORRIS JO ELLEN HARPER DAY MARY LEE LILLY ARMEN LEONIAN, AKA ARMEN LANHAM LEONIAN JOHN FULTON LEONIAN NIA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SILEX, JR. BAILEY ANN MILLS WILLIAM PAUL HARPER DAVID PAUL LOCOCO MARY LYNNE SLATTERY, FKA MARY LYNNE LOCOCO DONALD VINCENT LOCOCO ROSE MARIE VANHEUVELN THERESA LEE ROBERTSON MARTHA SUE MUZIO, FKA MARTHA SUE LOCOCO MICHELLE LOCOCO BUSHMIRE, FKA MICHELLE LUCRETTA BUSHMIRE ELIZABETH FLORENCE LOCOCO RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W BRC APPALACHIAN MINERALS I, LLC BRC APPALACHIAN MINERALS I, LLC	1-16-21
3 RONALD R. AND REVA O. ROWLAND	JACOB L. DILLON AND EDNA DILLON, H/W	1-16-20
4 JAMES E. ASH	GALE V. DAVISSON ROSEMARY EAGLE ELEANOR L. ROTH, ATTORNEY-IN-FACT FOR THE J. D. AND RUTH FOLEY HEIRS	1-16-19.1
5 JAMES E. ASH	GALE V. DAVISSON ROSEMARY EAGLE ELEANOR L. ROTH, ATTORNEY-IN-FACT FOR THE J. D. AND RUTH FOLEY HEIRS RICHARD ALAN GLOVER	1-16-19.1 1-16-19.2
8 DIANA L. BOGER	EDNA DILLON SAMUEL DAVID DILLON AND DONNA L. DILLON, H/W HOWARD D. SPURLOCK AND MARIAN E. SPURLOCK, H/W EDITH M. DOAK PEARL G. MCINTYRE PAUL MCINTYRE KERMIT MCINTYRE AND RUTH MCINTYRE, H/W SHEILA L. CLY EDITH W. MCINTYRE	1-16/18
9 DUANE CLARK ET AL, C/O DUANE & SUE CLARK	CLARENCE DUANE CLARK AND SANDRA SUE CLARK, H/W JEFFREY G. CLARK, SINGLE KEVIN S. CLARK, SINGLE JOHN BAKER, INDIVIDUALLY AND ATTORNEY-IN-FACT FOR THE "GORRELL DOAK HEIRS"	1-15/6
11 DUANE CLARK ET AL, C/O DUANE & SUE CLARK	ORA NELSON MOORE AND MARY EDNA MOORE, HUSBAND AND WIFE, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-15/6.1
13 KENNETH G. WRIGHT TRUST, KENNETH G. WRIGHT-TRUSTEE	FRANKLIN L. MERCER AND RUTH L. MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI LUTHER ROGERS AND ANITA ROGERS, H/W MARIE MERCER HARLEY EDWIN SPENCER AND ALICE RUTH SPENCER, H/W THE KENNETH G. WRIGHT TRUST, DATED 12/21/2010, BY KENNETH G. WRIGHT, TRUSTEE	1-16/1
14 DAVID AND MARY ANN PRESTON (LIFE ESTATE)	JAMES R. ASH AND FRANCES M. ASH, H/W	1-15/4
16 RYAN J. AND SUSAN J. LIND	ORA NELSON MOORE AND MARY EDNA MOORE, HUSBAND AND WIFE, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-12/23
17 KENNETH G. WRIGHT TRUST, KENNETH G. WRIGHT-TRUSTEE	FRANKLIN L. MERCER AND RUTH MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI ANITA ROGERS AND LUTHER ROGERS, W/H MARIE MERCER THE KENNETH G. WRIGHT TRUST, DATED 12/21/2010, BY KENNETH G. WRIGHT, TRUSTEE CONRAD E. COSTILOW SHELBY ROGERS GEORGE, A/K/A SHELBY R. GEORGE PATRICIA LEMLEY AND MELVIN LEMLEY, W/H PATRICIA CIAFARDO AND JOSEPH J. CIAFARDO, W/H BRADLEY ESMINGER AND SHIRLEY ESMINGER, F/K/A SHIRLEY GEORGE GARY W. GEORGE, SR. (INDIVIDUALLY), AND GARY W. GEORGE, SR. (REMAINDER INTEREST OF FRANCES M. GEORGE) BETH ANN MADDEN (INDIVIDUALLY) AND BETH ANN MADDEN (REMAINDER INTEREST OF FRANCES M. GEORGE) FRANCES M. GEORGE, A/K/A FRANCES MOORE GEORGE VIRGINIA H. LEMASTERS FAMILY TRUST, BY D. LARRY LEMASTERS, TRUSTEE LINDA SUE GEORGE COEN, F/K/A, LINDA SUE GEORGE DONALD ROBERT GEORGE DONALD EDWARD GEORGE, JR. AND DARLYN J. GEORGE, H/W LILIA WEE JOHNSON, BY HER ATTORNEY-IN-FACT, SANDRA LEE HIRMAN GREGORY C. NICHOLSON KIMBERLY ANN SHAMBLIN, A/K/A KIMBERLY A. ROUSH AND GREGORY S. ROUSH, W/H WILLIAM E. NICHOLSON CYNTHIA ANN ZONTS AND ROBERT FRANCIS ZONTS, W/H DEBORAH A. WAYCHOFF, F/K/A DEBORAH ANN COLE GRENDA COLE JAMES HENRY COLE MIKUEL ANN PARRISH DONNA PARRISH A/K/A DONNA RAHALL WILLIAM MICHAEL PARRISH AND CYNTHIA PARRISH, H/W CHRISTINA R. LORENCE, F/K/A CHRISTINA R. COLE	1-12/22.2
22 VERONICA SMITH	JAMES PAUL UNDERWOOD AND NAOMI JEAN UNDERWOOD, H/W	1-12/22.1 1-12/22.3
25 GENEVA (DENNISON) FOUTS - LIFE	ORA NELSON MOORE AND MARY EDNA MOORE, HUSBAND AND WIFE, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-12/10.1
26 GENEVA (DENNISON) FOUTS - LIFE ESTATE	BILLY KENNETH FOUTS AND MARIANNE B. FOUTS, H/W ERWIN LAWRENCE FOUTS SHEILA KAY FORRESTER AND ROBERT FORRESTER, W/H	1-12/10
31 JEFFREY J. AND KAY A. HEIKENFELD JAMES F. AND PATRICIA A. WOODS	ROBERT H. TENNANT, A SINGLE MAN AND OPAL V. TENNANT, A WIDOW	1-12/11 1-12/11.1

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4358034.06
E:514179.72
NAD83, WV NORTH
N:320287.264
E:1591001.515
LAT/LON DATUM-NAD83
LAT:39°22'17.967"
LONG:80°50'07.374"

APPROX. LANDING POINT
UTM 17-NAD83
N:4357946.49
E:513455.23
NAD83, WV NORTH
N:320039.590
E:1588619.286
LAT/LON DATUM-NAD83
LAT:39°22'15.316"
LONG:80°50'24.927"

BOTTOM HOLE LOCATION (BH1)
UTM 17-NAD83
N:4360667.61
E:512773.68
NAD83, WV NORTH
N:329006.292
E:1588531.806
LAT/LON DATUM-NAD83
LAT:39°23'43.475"
LONG:80°51'05.957"



THE THRASHER GROUP INC.
 CIVIL/ENVIRONMENTAL/CONSULTING/FIELD SERVICES
 300 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26306
 PHONE (304) 624-4100 FAX (304) 624-7031

API WELL #: 47 95 02649
 STATE COUNTY PERMIT

JULY 3, 2019

BHL is located on topo map 7,743 feet south of Latitude: 39° 25' 00"
 SHL is located on topo map 1,217 feet south of Latitude: 39° 22' 30"

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

LINE	BEARING	DISTANCE
R1	S 30°06'43" E	260.92'
R2	S 37°59'44" E	280.23'
R3	S 46°56'23" E	241.79'
R4	S 83°01'53" W	826.40'
R5	S 76°07'57" E	1061.75'
R6	N 35°21'34" E	1312.49'

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- LEASE NUMBER
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- LEASE BOUNDARY
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE

GAS WELLS

- EXISTING WELLS
- PLUGGED WELLS
- ABANDON WELLS

SURFACE HOLE LOCATION (SHL)

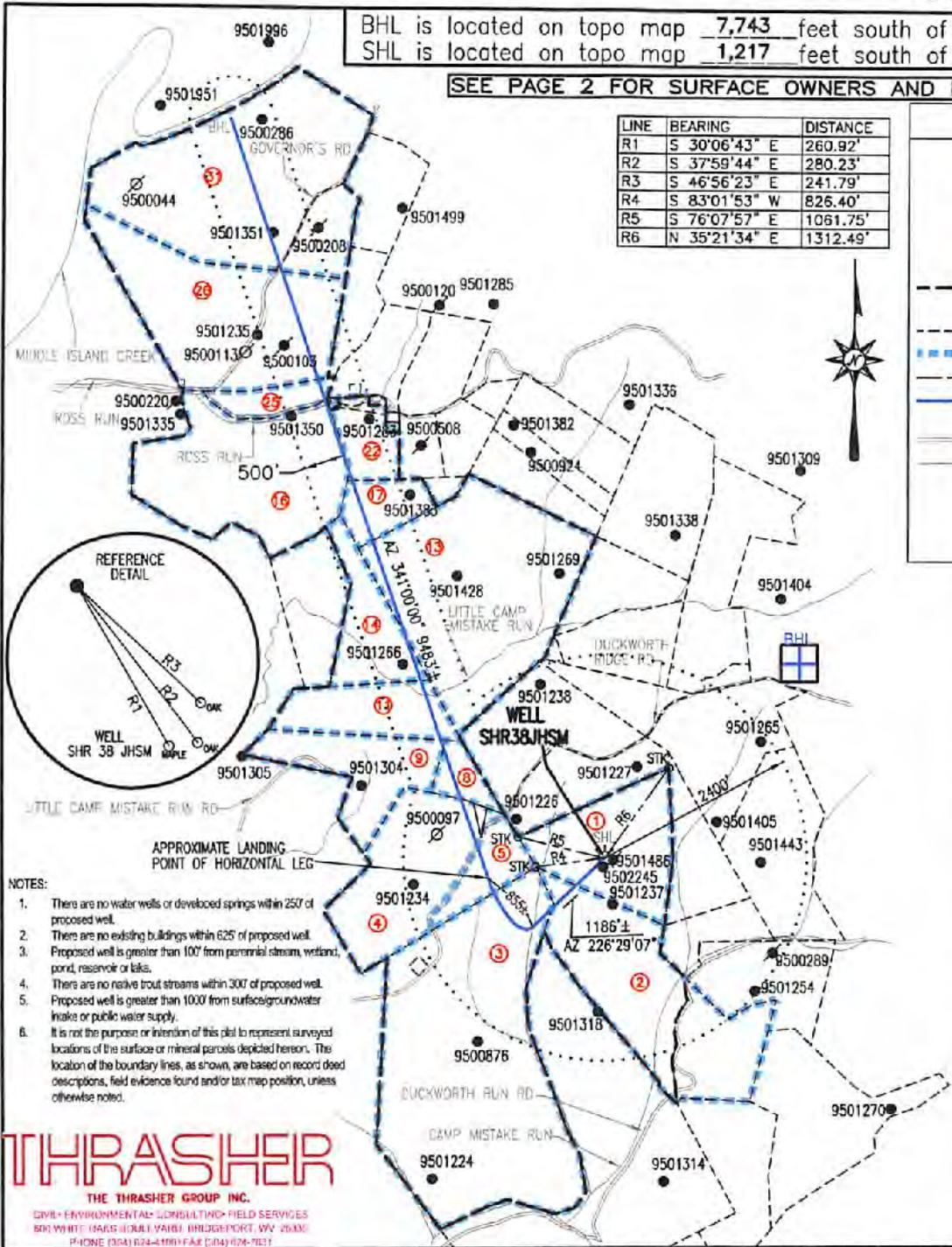
UTM 17-NAD83
 N:4358034.08
 E:514179.72
 NAD83, WV NORTH
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 E:512773.68
 NAD83, WV NORTH
 N:329006.292
 E:1586531.806
 LAT/LON DATUM-NAD83
 LAT:39°23'43.475"
 LON:80°51'05.957"



- 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.

THRASHER
 THE THRASHER GROUP INC.
 CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 801 WHITE OAKS (HUBBARD) BRIDGEPORT, WV 26033
 PHONE (304) 624-4100 FAX (304) 624-7037

SHL is located on topo map 5,178 feet west of Longitude: 80° 50' 00"
 SHL is located on topo map 579 feet west of Longitude: 80° 50' 00"

FILE #: SHR 38 JHSM
 DRAWING #: SHR 38 JHSM
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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

GEORGE D. SIX
 LICENSED
 No. 2000
 STATE OF
 WEST VIRGINIA
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

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

DATE: JULY 3, 2019
 OPERATOR'S WELL #: SHR 38 JHSM
 API WELL #: 47 95 02649
 STATE COUNTY PERMIT

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

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 1012'±
 COUNTY/DISTRICT: TYLER / CENTERVILLE QUADRANGLE: WEST UNION, WV 7.5'
 SURFACE OWNER: JAMES E. ASH ET AL ACREAGE: 111±
 OIL & GAS ROYALTY OWNER: JAMES E. ASH ET AL ACREAGE: 842.292±

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: 6,480'± TMD: 16,666'±
 WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT ANTHONY KENDZIORA
 Address 1000 CONSOL ENERGY DRIVE Address 1000 CONSOL ENERGY DRIVE
 City CANONSBURG State PA Zip Code 15317 City CANONSBURG State PA Zip Code 15317



SHR 38 JHSM

PAGE 2 OF 2

SURFACE OWNER	LESSOR	DIST-TM/PAR
1 JAMES E. ASH ET AL	VERNA O. ASH, JAMES E. ASH AND THELMA B. ASH, BESSIE HAUGHT AND HAROLD WARNER ERNEST G. SECKMAN AND O. JOANNE SECKMAN RALPH E. PHILLIPS AND VELINDA PHILLIPS H/W	P/O 1-16/19
2 JOHN R. ANDERS, II	JOHN MICHAEL LEONIAN JOSEPH ROBERT LEONIAN MARGO L. KIEHL AND CHARLES F. KIEHL, W/H BERDINA ROSE AND NORMAN W. ROSE, W/H PHILLIP LEONIAN, AKA PHILLIP MARSHALL LEONIAN MARION RAY BACHELOR, AKA MARION R. BACHELOR AND GLORIA JEAN BACHELOR, H/W RITA G. JARVIS MIKE ROSS, INC. I. L. MORRIS JO ELLEN HARPER DAY MARY LEE LILLY ARMEN LEONIAN, AKA ARMEN LANHAM LEONIAN JOHN FULTON LEONIAN NRA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SLEK, JR BAILEY ANN MILLS WILLIAM PAUL HARPER DAVID PAUL LOCOCO MARY LYNNE SLATTERY, FKA MARY LYNNE LOCOCO DONALD VINCENT LOCOCO ROSE MARIE VANHEUVELN THERESA LEE ROBERTSON MARTHA SUE MUZIO, FKA MARTHA SUE LOCOCO MICHELLE LOCOCO BUSHIRE, FKA MICHELLE LUCRETA BUSHIRE ELIZABETH FLORENCE LOCOCO RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W BRC APPALACHIAN MINERALS I, LLC BRC APPALACHIAN MINERALS I, LLC	1-16-21
3 RONALD R. AND REVA D. ROWLAND	JACOB L. DILLON AND EDNA DILLON, H/W	1-16-20
4 JAMES E. ASH	GALE V. DAVISSON ROSEMARY EAGLE ELEANOR L. ROTH, ATTORNEY-IN-FACT FOR THE J. D. AND RUTH FOLEY HEIRS	1-16-19.1
5 JAMES E. ASH	GALE V. DAVISSON ROSEMARY EAGLE ELEANOR L. ROTH, ATTORNEY-IN-FACT FOR THE J. D. AND RUTH FOLEY HEIRS RICHARD ALAN GLOVER	1-16-19.1 1-16-19.2
8 DIANA L. BOGER	EDNA DILLON SAMUEL DAVID DILLON AND DONNA L. DILLON, H/W HOWARD D. SPURLOCK AND MARIAN E. SPURLOCK, H/W EDITH M. DOAK PEARL G. MCINTYRE PAUL MCINTYRE KERMIT MCINTYRE AND RUTH MCINTYRE, H/W SHEILA L. GUY EDITH W. MCINTYRE	1-16/18
9 DUANE CLARK ET AL, C/O DUANE & SUE CLARK	CLARENCE DUANE CLARK AND SANDRA SUE CLARK, H/W JEFFREY G. CLARK, SINGLE KEVIN S. CLARK, SINGLE JOHN BAKER, INDIVIDUALLY AND ATTORNEY-IN-FACT FOR THE "GORRELL DOAK HEIRS"	1-15/6
11 DUANE CLARK ET AL, C/O DUANE & SUE CLARK	ORA NELSON MOORE AND MARY EDNA MOORE, HUSBAND AND WIFE, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-15/6.1
13 KENNETH G. WRIGHT TRUST, KENNETH G. WRIGHT-TRUSTEE	FRANKLIN L. MERCER AND RUTH L. MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI LUTHER ROGERS AND ANITA ROGERS, H/W MARIE MERCER HARLEY EDWIN SPENCER AND ALICE RUTH SPENCER, H/W THE KENNETH G. WRIGHT TRUST, DATED 12/21/2010, BY KENNETH G. WRIGHT, TRUSTEE	1-16/1
14 DAVID AND MARY ANN PRESTON (LIFE ESTATE)	JAMES R. ASH AND FRANCES M. ASH, H/W	1-15/4
16 RYAN J. AND SUSAN J. LIND	ORA NELSON MOORE AND MARY EDNA MOORE, HUSBAND AND WIFE, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-12/23
17 KENNETH G. WRIGHT TRUST, KENNETH G. WRIGHT-TRUSTEE	FRANKLIN L. MERCER AND RUTH MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI ANITA ROGERS AND LUTHER ROGERS, W/H MARIE MERCER THE KENNETH G. WRIGHT TRUST, DATED 12/21/2010, BY KENNETH G. WRIGHT, TRUSTEE CONRAD E. COSTILLOW SHELLEY ROGERS GEORGE, A/K/A SHELLEY R. GEORGE PATRICIA LEMLEY AND MELVIN LEMLEY, W/H PATRICIA CIAFARDO AND JOSEPH J. CIAFARDO, W/H BRADLEY ESMINGER AND SHIRLEY ESMINGER, F/K/A SHIRLEY GEORGE GARY W. GEORGE, SR. (INDIVIDUALLY), AND GARY W. GEORGE, SR. (REMAINDER INTEREST OF FRANCES M. GEORGE) BETH ANN MADDEN (INDIVIDUALLY) AND BETH ANN MADDEN (REMAINDER INTEREST OF FRANCES M. GEORGE) FRANCES M. GEORGE, A/K/A FRANCES MOORE GEORGE VIRGINIA H. LEWISTERS FAMILY TRUST, BY D. LARRY LEWISTERS, TRUSTEE LINDA SUE GEORGE COEN, F/K/A LINDA SUE GEORGE DONALD ROBERT GEORGE DONALD EDWARD GEORGE, JR. AND DARLYN J. GEORGE, H/W LULA MAE JOHNSON, BY HER ATTORNEY-IN-FACT, SANDRA LEE HARMAN GREGORY C. NICHOLSON KIMBERLY ANN SHAMBLIN, A/K/A KIMBERLY A. ROUSH AND GREGORY S. ROUSH, W/H WILLIAM E. NICHOLSON CYNTHIA ANN ZONTS AND ROBERT FRANCIS ZONTS, W/H DEBORAH A. WAYCHOFF, F/K/A DEBORAH ANN COLE BRENDA COLE JAMES HENRY COLE MIKUEL ANN PARRISH DONNA PARRISH A/K/A DONNA RAHALL WILLIAM MICHAEL PARRISH AND CYNTHIA PARRISH, H/W CHRISTINA R. LORENCE, F/K/A CHRISTINA R. COLE	1-12/22.1 1-12/22.2 1-12/22.3
22 YERONICA SMITH	JAMES PAUL UNDERWOOD AND NAOMI JEAN UNDERWOOD, H/W	1-12/22.1 1-12/22.3
25 GENEVA (DENNISON) FOUTS - LIFE	ORA NELSON MOORE AND MARY EDNA MOORE, HUSBAND AND WIFE, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-12/10.1
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31 JEFFREY J. AND KAY A. HEKENFELD JAMES F. AND PATRICIA A. WOODS	ROBERT H. TENNANT, A SINGLE MAN AND OPAL V. TENNANT, A WIDOW	1-12/11 1-12/11.1

SURFACE HOLE LOCATION (SHL)

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THE THRASHER GROUP INC.
 0510 ENVIRONMENTAL - CONSULTING - FIELD SERVICES
 300 WHITE OAKS BOULEVARD BRIDGEPORT, WV 26330
 PHONE (304) 624-1159 FAX (304) 624-7621

API WELL #: 47 95 02649
 STATE COUNTY PERMIT

JULY 3, 2019

WW-6A1
(5/13)

Operator's Well No. SHR38JHSM

**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:

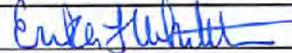
- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

RECEIVED
Office of Oil and Gas

JUL 24 2019

WV Department of
Environmental Protection

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: ERIKA WHETSTONE 
 Its: PERMITTING MANAGER

Attachment - Form WW-6A-1 for SHR 38 JHSM

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
1	1-16-19	258998000	Verna O. Ash, James E. Ash and Thelma B. Ash, Bessie Haught and Harold Warner, Ernest G. Seckman and O. Joanne Seckman	Drilling Appalachian Corporation	Not less than 1/8	269/571
			Ralph E. Phillips and Velinda Phillips, h/w	Drilling Appalachian Corporation	Not less than 1/8	271/103
			Drilling Appalachian Corporation	Dominion Appalachian Development Properties, LLC	Assignment	322/190
			Dominion Appalachian Development Properties, LLC	CONSOL Gas Appalachian Development Properties LLC	Merger	384/191
			CONSOL Gas Reserves Inc.	CONSOL Gas Reserves Inc.	Merger	384/191
			CONSOL Gas Company	CONSOL Gas Company	Merger	384/191
			CNX Gas Company LLC	CNX Gas Company LLC	Merger	384/191
			Noble Energy Inc.	Noble Energy Inc.	50% Assignment	388/286
			Noble Energy Inc.	CNX Gas Company LLC	50% Assignment	542/134
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
2	1-16-21	288768000	John Michael Leonian	CNX Gas Company, LLC	Not less than 1/8	406/84
			Joseph Robert Leonian	CNX Gas Company, LLC	Not less than 1/8	406/89
			Margo L. Kiehl and Charles F. Kiehl, w/h	CNX Gas Company, LLC	Not less than 1/8	409/229
			Berdina Rose and Norman W. Rose, w/h	CNX Gas Company, LLC	Not less than 1/8	406/94
			CNX Gas Company, LLC	Noble Energy, Inc.	Assignment	447/738
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273 ✓
			Phillip Leonian, aka Phillip Marshall Leonian	Noble Energy, Inc.	Not less than 1/8	465/276
			Marion Ray Bachelor, aka Marion R. Bachelor and Gloria Jean Bachelor, h/w	Noble Energy, Inc.	Not less than 1/8	449/543
			Rita G. Jarvis	Noble Energy, Inc.	Not less than 1/8	449/539
			Mike Ross, Inc.	Noble Energy, Inc.	Not less than 1/8	450/849
			I. L. Morris	Noble Energy, Inc.	Not less than 1/8	480/821
			Jo Ellen Harper Day	Noble Energy, Inc.	Not less than 1/8	452/692
			Mary Lee Lilly	Noble Energy, Inc.	Not less than 1/8	458/755
			Armen Leonian, aka Armen Lanham Leonian	Noble Energy, Inc.	Not less than 1/8	465/249
			John Fulton Leonian	Noble Energy, Inc.	Not less than 1/8	458/757
			Nila Ash Saylor Revocable Trust, by Joseph F. Silek, Jr	Noble Energy, Inc.	Not less than 1/8	465/266
			Bailey Ann Mills	Noble Energy, Inc.	Not less than 1/8	453/527
			William Paul Harper	Noble Energy, Inc.	Not less than 1/8	449/535
			David Paul Lococo	Noble Energy, Inc.	Not less than 1/8	449/497
			Mary Lynne Slattery, aka Mary Lynne Lococo	Noble Energy, Inc.	Not less than 1/8	452/702
			Donald Vincent Lococo	Noble Energy, Inc.	Not less than 1/8	453/635
			Rose Marie VanHeuveln	Noble Energy, Inc.	Not less than 1/8	526/567
			Theresa Lee Robertson	Noble Energy, Inc.	Not less than 1/8	471/678
			Martha Sue Muzio, aka Martha Sue Lococo	Noble Energy, Inc.	Not less than 1/8	449/541
			Michelle Lococo Bushmire, aka Michelle Lucretia Bushmire	Noble Energy, Inc.	Not less than 1/8	453/523
			Elizabeth Florence Lococo	Noble Energy, Inc.	Not less than 1/8	453/624
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	473/216
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	493/223
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	499/447
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	513/299
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	542/147
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	549/529
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273 ✓
			Ralph E. Phillips and Velinda Phillips, h/w	Noble Energy, Inc.	Not less than 1/8	492/300
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	513/299
			Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	570/96
			HG Energy II Appalachia, LLC	CNX Gas Company, LLC	Assignment	624/236 ✓
			BRC Appalachian Minerals I, LLC	BRC Working Interest Company	Not less than 1/8	369/300
			BRC Appalachian Minerals I, LLC	BRC Working Interest Company	Not less than 1/8	369/648
			BRC Working Interest Company	Chesapeake Appalachia, LLC	Assignment	369/784
			Chesapeake Appalachia, LLC	SWN Production Company, LLC	Assignment	465/463
			Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, LLC	Assignment	378/764
			SWN Production Company, LLC, Statoil USA Onshore Properties, Inc	Noble Energy, Inc and CNX Gas Company, LLC	Assignment	518/207
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273 ✓

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Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
3	1-16-20	258989000	Jacob L. Dillon and Edna Dillon, h/w	Royal Resources Corporation	Not less than 1/8	196/302
			Royal Resources Corporation	Columbia Gas Transmission Corporation	Assignment	196/166
			Columbia Gas Transmission Corporation	Anvil Oil Co., Inc.	Assignment and Name Change	269/107
			Anvil Oil Co., Inc.	Excel Energy, Inc.	Assignment	269/143
			Excel Energy, Inc.	Anvil Oil Co., Inc.	Assignment	269/143
			Anvil Oil Co., Inc.	Anvil Oil & Gas Company, Inc.	Name Change	WVSOS
			Justin L. Henderson, Individually and d/b/a Anvil Oil and Gas Company;	Dominion Appalachian Development, Inc.	Assignment	323/383
			Karen M. Henderson, wife; Anvil Oil and Gas Company, Inc.	CNX Gas Company, LLC	Merger	384/191
			Dominion Appalachian Development Properties, L.L.C.	Noble Energy, Inc.	Assignment	388/286
			CNX Gas Company, LLC	CNX Gas Company, LLC	Assignment	550/273 ✓
			Noble Energy, Inc.	Columbia Natural Resources, Inc.	Assignment	286/603
			Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC	Confirmatory Deed	349/536
			Columbia Natural Resources, Inc.	Statoilhydro USA Onshore Properties, Inc.	Partial Assignment	363/391
			Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, Inc.	Name Change	WVSOS
			Statoilhydro USA Onshore Properties, Inc.	Statoilhydro USA Onshore Properties, Inc.	Name Change	WVSOS

Agreement and Name Change WV Department of Environmental Protection

2015

Chesapeake Appalachia, LLC
 Statoil USA Onshore Properties, Inc.
 SWN Exchange TitleHolder LLC
 SWN Production Company, LLC
 Statoil USA Onshore Properties, Inc.
 Antero Exchange Properties, LLC
 Antero Resources Corporation

SWN Production Company, LLC
 SWN Exchange TitleHolder LLC
 SWN Production Company, LLC
 Antero Exchange Properties, LLC
 Antero Exchange Properties, LLC
 Antero Resources Corporation
 CNX Gas Company LLC

Assignment 465/463
 Assignment 470/668
 Merger 9/404
 Assignment 544/242
 Assignment 544/291
 Merger 552/315
 Affidavit of Agreement 624/332 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
4	1-16-19.1	257259000	Gale V. Davisson Rosemary Eagle Eleanor L. Roth, Attorney-in-Fact for the J. D. and Ruth Foley Heirs Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc.	Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC Drilling Appalachian Corporation Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Merger Merger Merger Merger 50% Assignment 50% Assignment Assignment Assignment Assignment Assignment Assignment	271/726 272/297 271/728 322/190 384/191 384/191 384/191 384/191 384/191 388/286 402/704 401/342 421/138 425/701 427/564 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5	1-16-19.2	257259000	Gale V. Davisson Rosemary Eagle Eleanor L. Roth, Attorney-in-Fact for the J. D. and Ruth Foley Heirs Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Richard Alan Glover Noble Energy Inc. Noble Energy Inc.	Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC Drilling Appalachian Corporation Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Merger Merger Merger Merger 50% Assignment 50% Assignment Assignment Assignment Assignment Assignment Not less than 1/8 50% Assignment Assignment	271/726 272/297 271/728 322/190 384/191 384/191 384/191 384/191 384/191 388/286 402/704 401/342 421/138 425/701 427/564 550/273 ✓ 480/835 513/299 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
8	1-16-18	288609000	Edna Dillon Samuel David Dillon and Donna L. Dillon, h/w Howard D. Spurlock and Marlan E. Spurlock, h/w Edith M. Doak Pearl G. McIntyre Paul McIntyre Kermit McIntyre and Ruth McIntyre, h/w Sheila L. Guy Edith W. McIntyre Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc.	Drilling Appalachian Corporation Drilling Appalachian Corporation Dominion Appalachian Development Properties, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Assignment Merger Merger Merger Merger 50% Assignment 50% Assignment Assignment Assignment Assignment Assignment Assignment	271/604 273/276 273/97 273/93 273/95 273/112 273/110 273/274 271/608 322/190 384/191 384/191 384/191 384/191 384/191 388/286 542/134 550/273 421/138 425/701 427/564 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
9	1-15-6	288617000	Clarence Duane Clark and Sandra Sue Clark, h/w Jeffrey G. Clark, single Kevin S. Clark, single Manna Oil & Gas Co. Anvil Oil Company Antero Resources Corporation Noble Energy, Inc.	Manna Oil & Gas Co. Anvil Oil Company Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company, LLC	Not less than 1/8 Name Change Assignment Assignment Assignment Assignment	265/405 645/257 445/774 468/769 550/273 ✓

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John Baker, individually and as Attorney-in-Fact for the "Gorrell Doak Heirs"
 Anvil Oil Company
 Antero Resources Corporation
 Noble Energy, Inc.

Anvil Oil Company Not less than 1/8 265/413
 Antero Resources Corporation Assignment 445/774
 CNX Gas Company LLC
 Noble Energy, Inc. Assignment 468/769
 CNX Gas Company, LLC Assignment 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
11	1-15-6.1	259026000	Ora Nelson Moore and Mary Edna Moore, husband and wife, and Oletha Moore, widow Rosemary Eggle Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation Noble Energy Inc.	Clarence W. Mutschelknaus Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Assignment Merger Merger Assignment Assignment	267/637 273/80 376/822 379/537 WVSOS 433/7 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
13	1-16-1	258983000	Franklin L. Mercer and Ruth L. Mercer, h/w and Franklin L. Mercer, Attorney-in-Fact for Roger N. Mercer and Gloria Mercer, h/w Delores Rossi Luther Rogers and Anita Rogers, h/w Marie Mercer Harley Edwin Spencer and Alice Ruth Spencer, h/w Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. The Kenneth G. Wright Trust, dated 12/21/2010, by Kenneth G. Wright, Trustee Noble Energy Inc.	Anvil Oil Company Anvil Oil Company Anvil Oil Company Anvil Oil Company Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Name Change Merger Merger Merger Merger 50% Assignment Assignment	273/506 273/426 273/424 273/422 271/645 323/383 WVSOS 384/191 384/191 384/191 384/191 388/286 550/273 492/302 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
14	1-15-4	259008000	James R. Ash and Frances M. Ash, h/w Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc.	Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Name Change Merger Merger Merger Merger 50% Assignment Assignment	271/712 323/383 WVSOS 384/191 384/191 384/191 384/191 388/286 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
16	1-12-23	259026000	Ora Nelson Moore and Mary Edna Moore, husband and wife, and Oletha Moore, widow Rosemary Eggle Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation Noble Energy Inc.	Clarence W. Mutschelknaus Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Assignment Merger Merger Assignment Assignment	267/637 273/80 376/822 379/537 WVSOS 433/7 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
17	1-12-22.2	259032000	Franklin L. Mercer and Ruth Mercer, h/w and Franklin L. Mercer as Attorney-in-Fact for Roger N. Mercer and Gloria Mercer, h/w Delores Rossi Anita Rogers and Luther Rogers, w/h Marie Mercer Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. The Kenneth G. Wright Trust, dated December 21, 2010, by Kenneth G. Wright, Trustee Conrad E. Costlow Shelby Rogers George, a/k/a Shelby R. George Patricia Lemley and Melvin Lemley, w/h Patricia Clafardo and Joseph J. Clafardo, w/h	Anvil Oil Company Anvil Oil Company Anvil Oil Company Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC Noble Energy Inc. Noble Energy Inc. Noble Energy Inc. Noble Energy Inc. Noble Energy Inc.	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Name Change Merger Merger Merger Merger 50% Assignment Assignment Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8	273/506 273/426 273/424 273/422 273/422 323/383 WVSOS 384/191 384/191 384/191 384/191 388/286 550/273 492/304 513/212 524/360 524/367 524/358

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Bradley Eisminger and Shirley Eisminger, f/k/a Shirley George Gary W. George, Sr. (Individually), and Gary W. George, Sr. (Remainder Interest of Frances M. George)	Noble Energy Inc.	Not less than 1/8	538/499
Beth Ann Madden (Individually) and Beth Ann Madden (Remainder Interest of Frances M. George)	Noble Energy Inc.	Not less than 1/8	524/363
Frances M. George, a/k/a Frances Moore George	Noble Energy Inc.	Not less than 1/8	531/118
Noble Energy Inc.	Noble Energy Inc.	Not less than 1/8	543/570
	CNX Gas Company LLC	Assignment	550/273 ✓
Virginia H. LeMasters Family Trust, by D. Larry LeMasters, Trustee	Noble Energy Inc.	Not less than 1/8	552/91
Noble Energy Inc.	HG Energy II Appalachia, LLC	Assignment	570/96
HG Energy II Appalachia, LLC	CNX Gas Company LLC	Assignment	Recording in progress. Copy attached. ✓
Linda Sue George Coen, f/k/a, Linda Sue George	CNX Gas Company LLC	Not less than 1/8	628/647
Donald Robert George	CNX Gas Company LLC	Not less than 1/8	626/188
Donald Edward George, Jr. and Darilyn J. Geroge, h/w	CNX Gas Company LLC	Not less than 1/8	626/193
Lula Mae Johnson, by her Attorney-in-Fact, Sandra Lee Harman	CNX Gas Company LLC	Not less than 1/8	639/328
Gregory C. Nicholson	CNX Gas Company LLC	Not less than 1/8	640/688
Kimberly Ann Shamblin, a/k/a Kimberly A. Roush and Gregory S. Roush, w/h	CNX Gas Company LLC	Not less than 1/8	640/693
William E. Nicholson	CNX Gas Company LLC	Not less than 1/8	645/242
Cynthia Ann Zonts and Robert Francis Zonts, w/h	CNX Gas Company LLC	Not less than 1/8	Recording in progress. Copy attached.
Deborah A. Weychoff, f/k/a Deborah Ann Cole	CNX Gas Company LLC	Not less than 1/8	Recording in progress. Copy attached.
Brenda Cole	CNX Gas Company LLC	Not less than 1/8	Recording in progress. Copy attached.
James Henry Cole	CNX Gas Company LLC	Not less than 1/8	Recording in progress. Copy attached.
Mikuel Ann Parrish	CNX Gas Company LLC	Not less than 1/8	Recording in progress. Copy attached.
Donna Parrish a/k/a Donna Rahall	CNX Gas Company LLC	Not less than 1/8	Recording in progress. Copy attached.
William Michael Parrish and Cynthia Parrish, h/w	CNX Gas Company LLC	Not less than 1/8	649/62 ✓
Christina R. Lorence, f/k/a Christina R. Cole	CNX Gas Company LLC	Not less than 1/8	649/83 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
22	1-12-22.1 1-12-22.3	259029000	James Paul Underwood and Naomi Jean Underwood, h/w Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc.	Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Name Change Merger Merger Merger Merger 50% Assignment Assignment	275/594 323/383 WVS05 384/191 384/191 384/191 384/191 388/286 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
25	1-12-10.1	259026000	Ora Nelson Moore and Mary Edna Moore, husband and wife, and Oletha Moore, widow Rosemary Eagle Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation Noble Energy Inc.	Clarence W. Mutschelknaus Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Assignment Merger Merger Assignment Assignment	267/637 273/80 376/822 379/537 WVS05 433/7 550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
26	1-12-10	243400000	Billy Kenneth Fouts and Marianne B. Fouts, h/w Erwin Lawrence Fouts Sheila Kay Forrester and Robert Forrester, w/h	CNX Gas Company LLC CNX Gas Company LLC CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8	649/68 649/73 649/78 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
31	1-12-11.1	243936000	Robert H. Tennant, a single man and Opal V. Tennant, a widow Justin L. Henderson d/b/a Anvil Oil Company Anvil 1989-3 Joint Venture Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc.	Anvil Oil Company Anvil 1989-3 Joint Venture Dominion Appalachian Development, Inc. Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Assignment Assignment Name Change Merger Merger Merger Merger 50% Assignment Assignment	267/56 284/107 329/855 323/383 WVS05 384/191 384/191 384/191 384/191 388/286 550/273 ✓

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JUL 24 2010
WV Department of Environmental Protection



Erika Whetstone
Permitting Manager
1000 Consol Energy Dr.
Canonsburg, PA 15317
(724) 485-4035

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

RE: Road Letter – SHR38 Well Pad Drilling 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.

If any further information or correspondence is required, please contact me at (724) 485-4035 or ErikaWhetstone@cnx.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Erika Whetstone'.

Erika Whetstone
Permitting Manager

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Office of Oil and Gas
JUL 24 2019
WV Department of
Environmental Protection

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

Date of Notice Certification: 7/23/19

API No. 47- 095 -
Operator's Well No. SHR38JHSM
Well Pad Name: SHR38

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>514179.7210</u>
County: <u>TYLER</u>		Northing: <u>4358034.0600</u>
District: <u>CENTERVILLE</u>	Public Road Access: <u>DUCKWORTH RIDGE ROAD</u>	
Quadrangle: <u>WEST UNION</u>	Generally used farm name: <u>ASH</u>	
Watershed: <u>MIDDLE ISLAND 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.

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:

*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or
 WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- RECEIVED/
NOT REQUIRED
- RECEIVED
- RECEIVED/
NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

JUL 24 2019

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.

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Office of Oil and Gas
Environmental Protection

WW-6AC
(1/12)

Certification of Notice is hereby given:

THEREFORE, I ERIKA WHETSTONE, 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.

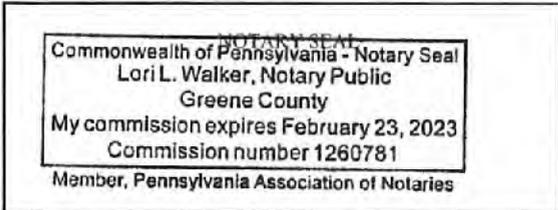
Well Operator:	<u>CNX GAS COMPANY LLC</u>	Address:	<u>1000 CONSOL ENERGY DRIVE</u>
By:	<u>ERIKA WHETSTONE</u> <i>Erika Whetstone</i>		<u>CANONSBURG PA 15370</u>
Its:	<u>PERMITTING MANAGER</u>	Facsimile:	<u></u>
Telephone:	<u>724-485-4035</u>	Email:	<u>ERIKAWHETSTONE@CNX.COM</u>

Commonwealth of Pennsylvania County of Washington

Subscribed and sworn before me this 23rd day of July 2019.

Lori L Walker Notary Public

My Commission Expires February 23, 2023



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.

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Office of Oil and Gas
JUL 24 2019
WV Department of
Environmental Protection

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: 7/23/19 Date Permit Application Filed: 7/23/19

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: SEE ATTACHED
Address: _____
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: _____
Address: _____
Name: _____
Address: _____

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

COAL OWNER OR LESSEE
Name: SEE ATTACHED
Address: _____
 COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: SEE ATTACHED
Address: _____

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

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WV Department of Environmental Protection

*Please attach additional forms if necessary

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 and Gas Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/office/4709502649/and-gas/pages/default.aspx.

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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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WW-6A
(8-13)

API NO. 47-095 - _____
OPERATOR WELL NO. SHR38JHSM
Well Pad Name: SHR38

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.**

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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(8-13)

47 09 5 02649
API NO. 47-095 -
OPERATOR WELL NO. SHR38JHSM
Well Pad Name: SHR38

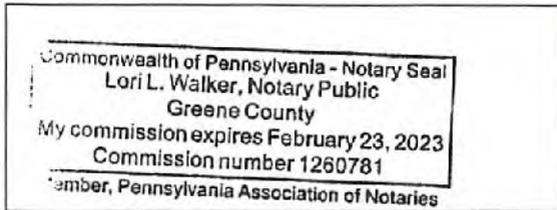
Notice is hereby given by:

Well Operator: CNX GAS COMPANY LLC *Erik Whetstone*
Telephone: 724-485-4035
Email: ERIKAWHETSTONE@CNX.COM

Address: 1000 CONSOL ENERGY DRIVE
CANONSBURG, PA 15317
Facsimile:

Oil and Gas Privacy Notice:

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



Commonwealth of Pennsylvania
County of Washington
Subscribed and sworn before me this 29th day of July 2019.
Lori L Walker Notary Public
My Commission Expires February 23, 2023

Surface Owners:

Estate of James Eli Ash, c/o Robert Bruce Ash, Executor	7717 Summerset Drive Apex, NC 27539
Bradley James Ash	2073 Duckworth Ridge Road Alma, WV 26320
Bryan Ervin Ash	8707 Middle Island Road Alma, WV 26320
Robert Bruce Ash	7717 Summerset Drive Apex, NC 27539
William Brent Ash	102 Heather Court Saint Robert, MO 65584
Paula Marie Keplinger	240 Conaway Run Road Alma, WV 26320
Pamela Kay Moore	2450 Stockton Road Frankfort, KY 40601
Becannray LLC	5042 Tyler Highway Sistersville, WV 26175
Nicole Eastham	34973 State Route 800 New Matamoras, OH 45767
Alexandria Fetty	34973 State Route 800 New Matamoras, OH 45767
Rachelle Hise	37559 State Route 7 Sardis, OH 43946
Potts Place LLC	353 Foundry Street New Martinsville, WV 26155
STS Enterprises LLC	659 Jefferson Run Road Alma, WV 26320
Bessie Warner	771 McElroy Creek Road Alma, WV 26320

Coal Owners:

Estate of James Eli Ash, c/o Robert Bruce Ash, Executor	7717 Summerset Drive Apex, NC 27539
Bradley James Ash	2073 Duckworth Ridge Road Alma, WV 26320
Bryan Ervin Ash	8707 Middle Island Road Alma, WV 26320
Robert Bruce Ash	7717 Summerset Drive Apex, NC 27539
William Brent Ash	102 Heather Court Saint Robert, MO 65584
Paula Marie Keplinger	240 Conaway Run Road Alma, WV 26320
Pamela Kay Moore	2450 Stockton Road Frankfort, KY 40601
Becannray LLC	5042 Tyler Highway Sistersville, WV 26175

47 09 5 02649

Nicole Eastham	34973 State Route 800 New Matamoras, OH 45767
Alexandria Fetty	34973 State Route 800 New Matamoras, OH 45767
Rachelle Hise	37559 State Route 7 Sardis, OH 43946
Potts Place LLC	353 Foundry Street New Martinsville, WV 26155
STS Enterprises LLC	659 Jefferson Run Road Alma, WV 26320
Bessie Warner	771 McElroy Creek Road Alma, WV 26320
Ralph E Phillips	6411 Veterans Highway New Martinsville, WV 26155

Surface Owner of Water Well and/or Water Purveyor(s):

ASH, JAMES E

8707 MIDDLE ISLAND RD ALMA WV 26320

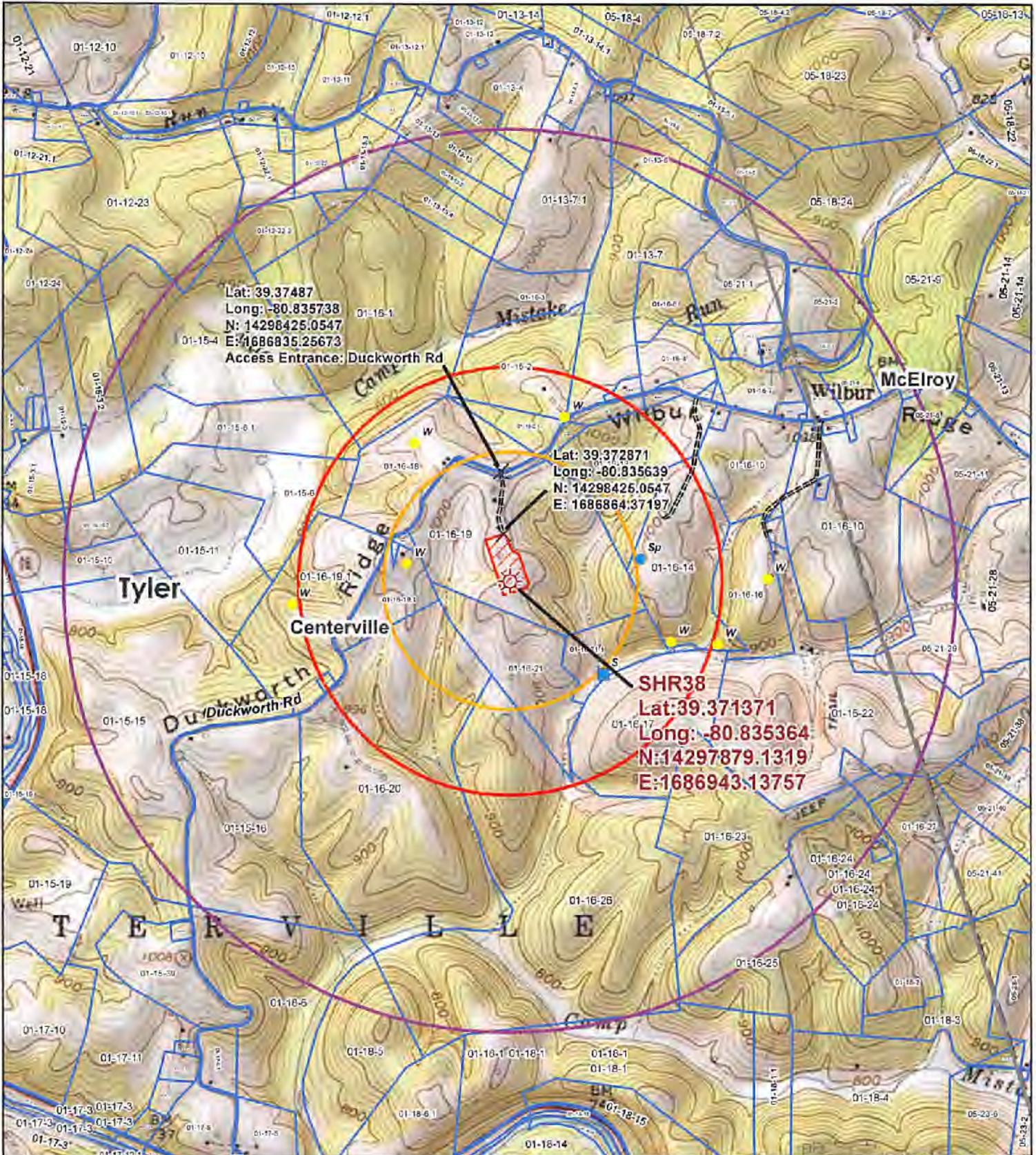
ANDERS, JOHN R II

804 PETERS RUN RD WHEELING WV 26003

COSTILOW, CONRAD

13310 MIDDLE ISLAND RD WEST UNION WV 26456

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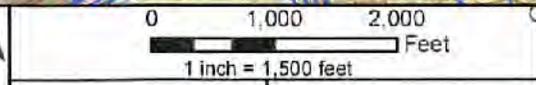
Lat: 39.37487
 Long: -80.835738
 N: 14298425.0547
 E: 1686835.25673
 Access Entrance: Duckworth Rd

Lat: 39.372871
 Long: -80.835639
 N: 14298426.0547
 E: 1686864.37197

SHR38
 Lat: 39.371371
 Long: -80.835364
 N: 14297879.1319
 E: 1686943.13757

Legend

- Wellbore
- Access Points
- Sp
- St
- W
- Access Road
- Surface Parcel
- Well Pad
- 1,500 Foot Buffer
- 2,500 Foot Buffer
- 1 Mile Buffer



Original Date: 5/8/2018	Prepared By: GIS
Revision Date: 5/8/2018	Approved By: GIS

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Office of Environmental Protection
CNX
 JUL 24 2018
 WV Department of Environmental Protection
 Environmental Protection
Topographic Well Map
SHR38

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 7/23/19 **Date Permit Application Filed:** 7/23/19

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: SEE ATTACHED
Address: _____

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>WEST VIRGINIA</u>	UTM NAD 83	Easting:	<u>514179.7210</u>
County:	<u>TYLER</u>		Northing:	<u>4358034.0600</u>
District:	<u>CENTERVILLE</u>	Public Road Access:	<u>DUCKWORTH RIDGE ROAD</u>	
Quadrangle:	<u>WEST UNION</u>	Generally used farm name:	<u>ASH</u>	
Watershed:	<u>MIDDLE ISLAND CREEK</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. 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.

Notice is hereby given by:

Well Operator: CNX GAS COMPANY LLC
Address: 1000 CONSOL ENERGY DRIVE
CANONSBURG PA 15370
Telephone: 724-485-4035
Email: ERIKAWHETSTONE@CNX.COM
Facsimile: _____

Authorized Representative: ERIKA WHETSTONE
Address: 1000 CONSOL ENERGY DRIVE
CANONSBURG PA 15370
Telephone: 724-485-4035
Email: ERIKAWHETSTONE@CNX.COM
Facsimile: _____

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WV Department of
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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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 7/23/19 Date Permit Application Filed: 7/23/19

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: SEE ATTACHED
Address: _____

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>WEST VIRGINIA</u>	UTM NAD 83 Easting: <u>514179.7210</u>
County: <u>TYLER</u>	Northing: <u>4358034.0600</u>
District: <u>CENTERVILLE</u>	Public Road Access: <u>DUCKWORTH RIDGE ROAD</u>
Quadrangle: <u>WEST UNION</u>	Generally used farm name: <u>ASH</u>
Watershed: <u>MIDDLE ISLAND CREEK</u>	

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection 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 Operator: CNX GAS COMPANY LLC
Telephone: 724-485-4035
Email: ERIKAWHETSTONE@CNX.COM

Address: 1000 CONSOL ENERGY DRIVE
CANONSBURG PA 15370
Facsimile: _____

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Office of Oil and Gas

JUL 24 2019

WV Department of
Environmental Protection

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.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Byrd E. White, III
 Secretary of Transportation

June 28, 2019

Jimmy Wriston, P. E.
 Deputy Secretary/
 Acting Commissioner

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 SHR-38 Pad, Tyler County
 SHR38JHSM Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2018-0331 issued to CNX Gas Company LLC, for access to the State Road for a well site located off Tyler County Route 58/2 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE 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 October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.
 Regional Maintenance Engineer
 Central Office O&G Coordinator

Cc: Shannon Miller
 CNX Gas Company LLC
 CH, OM, D-6
 File

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 WV Department of
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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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