

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

May 29, 2015

WELL WORK PERMIT Horizontal 6A Well

This permit, API Well Number: 47-3305855, issued to CNX GAS COMPANY LLC , is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

ZOTI ELIO

Operator's Well No: KST1EHS

Farm Name: MIKE ROSS, INC.

API Well Number: 47-3305855

Permit Type: Horizontal 6A Well

Date Issued: 05/29/2015

Promoting a healthy environment.

API Number:	33-05855

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified permit</u> conditions may result in enforcement action.

CONDITIONS

- 1. This proposed activity will require permit coverage from the United States Army Corps of Engineers (USACE) and WV DEP Department of Water and Waste Management (DWWM). No activity authorized under this permit shall be commenced until all necessary permits from USACE and DWWM are obtained.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
- 9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.



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Office of Oil and Gas 601 57th Street Charleston, WV 25304 (304) 926-0450 fax (304) 926-0452 Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

ORDER ISSUED UNDER WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A

TO: CNX Gas Company, LLC P.O. Box 1248 Jane Lew, WV 26378

DATE: May 29, 2015 ORDER NO.: 2015-W-4

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 et seq. to CNX Gas Company, LLC. (hereinafter "CNX Gas Company" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

- 1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 et seq., and the rules and regulations promulgated thereunder.
- 2. CNX Gas Company is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as Post Office Box 1248 Jane Lew, WV 26378.
- On November 6, 2014, CNX Gas Company submitted a well work permit application identified as API# 47-033-05855, located on the KST1HS Pad in Union District of Harrison County, West Virginia.
- 4. On March 25, 2015, CNX Gas Company requested a waiver for Wetlands #5, #7, #8, #9, #10, and #11 outlined in Exhibit 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for a gas well permit application identified as 47-033-05855, located on the KST1HS Pad in Union District of Harrison County, West Virginia.

CONCLUSIONS OF LAW

- 1. West Virginia Code §22-1-6(d) requires, in part, that "[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to...(3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing."
- 2. West Virginia Code §22-6A-2(a)(6) requires, in part, that "Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter."
- 3. West Virginia Code §22-6A-12(b) requires, in part, that "[n]o 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 Office of Oil and Gas 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 Office of Oil and Gas 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."

ORDER

Therefore, the Office of Oil and Gas grants CNX Gas Company a waiver for Wetlands #5, #7, #8, #9, #10 and #11 from well location restriction requirements in W. Va. Code §22-6A-12(b) for a gas well permit application identified as API# 47-033-05855, located on the KST1HS Pad in Union District of Harrison County, West Virginia. The Office of Oil and Gas hereby **ORDERS** that CNX Gas Company shall meet the following site construction and operational requirements for the KST1HS well pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least two feet (2') in height;
- Filter/silt socks and erosion control blankets shall be installed on all slopes and down gradient locations of the pad and topsoil pile areas as erosion and sediment controlling BMPs;
- c. Wetlands #5, #7, #8, #10 and #11 shall have a double compost filter sock stack installed adjacent to the wetlands; wetland #9 is upslope of disturbance and will not have additional controls added;
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½") rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies:
- All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 29th day of May, 2015.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

AMES A MARTIN, CHIEF

API Number	33-05855	Well Number	KSTIEHS	
Operator C	NX Gas Company LLC	Pad Name	KST-1	

Submit a conclusive demonstration to justify the proposed activity by addressing the following:

- Demonstrate that there is not a practical alternative to impact the Waters of the U.S. by including other alternatives that were considered but eliminated.
 - a. Include a No-Action Alternative as to show "the future without the project"
 If the pad is unable to be built there would be no chance to provide the natural gas to market for the citizens of the United States.
 - b. Location Alternatives must be shown

No alternatives exist without adding significant wetland impacts to Wetlands 5, 7, 8, 9, 10 and 11. This location has wetlands on all sides of the pad. The proposed location is the only practical, environmentally friendly option.

c. Must demonstrate why a 100' buffer cannot be maintained

Theses wetlands are located off of Kincheloe Road as well as the access road and provides filtration to Kincheloe Creek. Wetland 9 is upslope of disturbance will not have additional E and S controls but Wetlands 5, 7, 8, 10 and 11 will have the additional E&S controls to enable the wetlands to continue to function in their natural way while being protected.

Show that treatment facilities (Erosion and Sediment Control Features) will be located as close as practical to the source(s) with which it is associated.

The proposed E&S BMPs are located as close as possible to the proposed earthwork area. No additional wetland impacts will result from the additional grading required to construct the pad location.

- Demonstrate that all proposed activity will not impact Waters of the U.S. more than is necessary to accommodate the proper construction and operation of the facility.
 - Specify and identify wetlands using unique identification and/or perennial streams located within 100' of the pad's limit of disturbance (including erosion and sediment controls).

Wetland-5, Wetland 5 is a PEM located on a hill slope and terrace along an existing pipeline. Hydrology is related to spring seeps, a perched water table as well as a drainage culvert from the existing access road. This wetland has geomorphic position to be hydrologically connected to S-5. The trees in the wetland mainly provide cover however the upland trees within the wetland show signs of stunting and stressing. Soils were saturated at the time of the delineation. The tree stratum contains Robinia pseudoacacia (black locust), Liriodendron tulipifera (tulip tree), Acer saccharum (sugar maple) and Ulmus americana (American elm). The scrub/shrub stratum contains Rubus allegheniensis (Allegheny blackberry) and the invasive Rosa multiflora (multiflora rose). The herbaceous layer is comprised of Microstegium viminuem (Nepalese browntop), Carex lurida 05/29/2015

(shallow sedge), Polygonum hydropiper (marshpepper knotweed), Dicanthelium clandestinum (deer tongue), Impatiens capensis (jewelweed), Carex vulpinoidea (fox sedge), Trifolium repens (white clover), Trifolium pratense (red clover), Juncus effusus (common rush), Cirsium vulgare (bull thistle) and Daucus carota (Queen Anne's lace). The woody vine stratum contains Vitis labrusca (fox grape). The soil sample is comprised of two distinct layers. The first layer consisted of a silt loam clay with a matrix color of 10YR 4/2 at 70% and redox feature color of 10YR 6/6 for the first 3 inches. The second layer, from 3-20 inches, is a clay texture, with a matrix of 10YR 7/2 at 65% and a redox of 10YR 6/8 at 35%. Wetland data forms W-5 and UPL-5 describe this wetland and adjacent upland.

Wetland-7, Wetland 7 is a spring seep fed PEM and PFO wetland. This wetland adds hydrology to stream S-11. The hydrology is derived from geomorphic position and the emergent spring. The tree stratum contains Ulmus americana (American elm) and Liriodendron tulipifera (tulip tree). The herbaceous stratum is comprised of Microstegium viminuem (Nepalese browntop), Impatiens capensis (jewelweed), Boehmeria cylindrica (smallspike false nettle), Dicanthelium clandestinum (deer tongue), Polygonum hydropiper (marshpepper knotweed), Urtica dioica (stinging nettle), Onoclea sensibilis (sensitive fern) and Carex lurida (shallow sedge). The woody vine stratum is comprised of Vitis labrusca (fox grape). The soils are comprised of one distinct layer consisting of clay silt loam. From 0-20 inches, which had a matrix of 10YR 4/2 at 80% and a redox color feature of 5YR 5/6 at 20%. Wetland data forms W-7 and UPL-7 describe this wetland and adjacent upland.

Wetland-8, Wetland 8 is a spring seep fed PEM and PFO wetland. This wetland adds hydrology to stream S-12. The hydrology is derived from geomorphic position and the emergent spring. Some trees showed buttressing of roots. The tree stratum contains Ulmus americana (American elm), Liriodendron tulipifera (tulip tree) and Gleditsia triacanthos (honey locust). The herbaceous stratum is comprised of Microstegium viminuem (Nepalese browntop), Impatiens capensis (jewelweed), Boehmeria cylindrica (smallspike false nettle), Dicanthelium clandestinum (deer tongue), Polygonum hydropiper (marshpepper knotweed), Urtica dioica (stinging nettle), Onoclea sensibilis (sensitive fern) and Carex Iurida (shallow sedge). The woody vine stratum is comprised of Vitis labrusca (fox grape). The soils are comprised of one distinct layer consisting of clay silt loam. From 0-20 inches, which had a matrix of 10YR 4/2 at 80% and a redox color feature of 5YR 5/6 at 20%. Wetland data forms W-8 and UPL-8 describe this wetland and adjacent upland.

Wetland-9, Wetland 9 is a PEM located on a hill slope and terrace on the northern most border of the AOI. This wetland is currently around an active shallow oil and gas well. Hydrology is related to a system of strong spring seeps and a perched water table. This wetland supplies hydrology to a stream which is outside of the AOI. Soils were saturated at the time of the delineation. Wetland 1 contains primarily emergent herbaceous vegetation. The tree stratum contains Salix nigra (black willow). The scrub/shrub stratum contains Smilax rotundifolia (roundleaf greenbrier), Salix nigra (black willow), Rubus allegheniensis (Allegheny blackberry), Platanus occidentalis (American sycamore) and the invasive Elaeagnus umbellata (autumn olive). The herbaceous layer is comprised of Microstegium viminuem (Nepalese browntop), Juncus effusus (common rush), Juncus marginatus (grasslead rush), Juncus marginatus (grasslead rush), Carex vulpinoidea (fox sedge), Agrostis gigantea (red top), Verbisina alternifolia (wingstem), Polygonum hydropiper (marshpepper knotweed), Rumex crispus (curly dock), Clinopodium vulgare (wild basil) and Trifolium repens (white clover). The soil sample is comprised of one distinct layer. The first layer consisted of a clay loam a with matrix color of 10YR 5/1 at 70% and redox color feature of 10YR 6/6 at 30% for the first 6 inches. At 6 inches an impenetrable layer of rock was encountered. Wetland data forms W-9 and 05/29/2015 UPL-9 describe this wetland and adjacent upland.

Wetland-10, Wetland 10 is a PEM wetland strongly fed by spring seeps. The wetland is located on an existing logging road. The hydrology is a derived from multiple spring seep flows from the hillside. This wetland continues down gradient outside of the AOI. The tree stratum is comprised of Cercis canadensis (eastern red bud), Acer rubrum (red maple) and Carya glabra (pignut hickory). The scrub/shrub stratum is comprised only of Platanus occidentalis (American sycamore). The herbaceous stratum is comprised of Microstegium viminuem (Nepalese browntop), Scirpus atrovirens (green bulrush), Juncus effusus (common rush), Juncus marginatus (grasslead rush), Carex lurida (shallow sedge), Carex vulpinoidea (fox sedge), Agrostis gigantea (red top), Verbisina alternifolia (wingstem), Polygonum hydropiper (marshpepper knotweed), Rumex crispus (curly dock) and Typha latifolia (broadleaf cattail). The soils are comprised of one distinct layer consisting of silt loam clay. Layer one, 0-8 inches, had a matrix of 2.5YR 6/3 at 80% and a redox feature of 7.5YR 5/4 at 20%. An impenetrable layer of rock was encountered at 8 inches. Wetland data forms W-10 and UPL-10 describe this wetland and adjacent upland.

Wetland-11, Wetland 11 is a PEM wetland strongly fed by spring seeps. The wetland is located on an existing logging road. The hydrology is a derived from multiple spring seep flows from the hillside. This wetland continues down gradient outside of the AOI. The tree stratum is comprised of Cercis canadensis (eastern red bud), Acer rubrum (red maple) and Carya glabra (pignut hickory). The scrub/shrub stratum is comprised only of Platanus occidentalis (American sycamore). The herbaceous stratum is comprised of Microstegium viminuem (Nepalese browntop), Scirpus atrovirens (green bulrush), Juncus effusus (common rush), Juncus marginatus (grasslead rush), Carex lurida (shallow sedge), Carex vulpinoidea (fox sedge), Agrostis gigantea (red top), Verbisina alternifolia (wingstem), Polygonum hydropiper (marshpepper knotweed), Rumex crispus (curly dock) and Typha latifolia (broadleaf cattail). The soils are comprised of one distinct layer consisting of silt loam clay. Layer one, 0-8 inches, had a matrix of 2.5YR 6/3 at 80% and a redox feature of 7.5YR 5/4 at 20%. An impenetrable layer of rock was encountered at 8 inches. Wetland data forms W-11 and UPL-11 describe this wetland and adjacent upland.

- b. Is the proposed project the least environmentally damaging practicable alternative to the waters of the United States, so long as the alternative does not have other environmental consequences.
 - The proposed pad location is located within 100' of and Wetlands 5, 7, 8, 9, 10 and 11. However, the proposed pad location will not be environmentally damaging and is the only practical location.
- Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.
 - Specify in writing what additional controls, measures, devices, monitoring, etc will be utilized to protect these wetlands and/or perennial streams.

Below are a list of BMPs that may be utilized to protect adjacent wetlands.

ROCK CONSTRUCTION ENTRANCE

A rock construction entrance will be provided at the location shown on the plans and in accordance with the standard detail provided in the Erosion and Sediment Control Plan. This measure proves effective removing sediment from vehicles before entering onto State, and county roads. The rock construction entrance thickness shall be constantly maintained to the specified dimensions by adding rock. A stockpile shall be maintained onsite for this purpose. At the end of each construction day, all sediment deposited on 65/29/2015

roadways shall be removed and returned to the construction site. If the crushed stone does not adequately remove sediment from vehicle tires, the tires should be hosed off before the vehicle enters a public street. The washings should be done on an area covered with crushed stone, and the water wash should drain to a sediment control device.

DIVERSION DITCHES

A channel will be used to convey storm water runoff in a stable manner from the pad site construction area. The channel will be lined with erosion control matting to help keep seed in place once final grades are established. Channels shall be inspected twice a month until a uniform 70% perennial vegetative cover is established. Any damage to the channel or erosion control blanket shall be fixed immediately. The contractor is to place seed on all bare spots and areas not establishing ground cover.

ROCK CHECK DAMS

Rock check dams are to be installed in each channel to reduce the velocity of storm water flows, thereby reducing erosion of the channel and trapping sediment. Rock check dams are to be installed every 100 linear feet in any channel conveying sediment laden runoff. Inspect each check dam at a minimum once every seven (7) calendar days and within 24 hours after and storm event greater than 0.5 inches of rain per 24 hour period. Check to see if water has flowed around the edges of the structure. Replace stone and repair dams as necessary to maintain the correct height and configuration.

RIP RAP OUTLET PROTECTION

Rock Aprons will be used at storm sewer outfalls to dissipate the velocity coming from storm pipes, helping prevent erosion/scour of existing drainage ways and features.

The rock aprons shall be inspected weekly until a uniform 70% perennial vegetation has established. Any visible damage shall be fixed by the end of the working day by placing additional riprap in the damaged area with a layer of geotextile. Place additional stone as necessary to prevent further erosion.

COMPOST FILTER SOCK

Silt sock shall be installed in the locations shown on the plans and in accordance with the standard detail provided in the ESCP. Accumulated sediments shall be removed in all cases where accumulations have reached half the above ground height of the sock. If the sock has been damaged, it shall be repaired or replaced if beyond repair. The filter media will be dispersed on site once the disturbed area has been permanently stabilized. Adhere to manufacturer's recommendations.

EROSION CONTROL MATTING

The specified products or approved equivalent erosion control matting will be installed within all permanent channels and on all slopes 3:1 or greater. The erosion control matting shall be inspected weekly and after every rainfall event to look for scour/washout areas. Any scoured areas shall be fixed immediately by compacting soil in the washout area and placing seed. Any damaged erosion control matting shall be replaced immediately. Matting shall be maintained until a uniform 70% perennial vegetation has been established.

TEMPORARY VEGETATIVE STABALIZATION

Fertilizing, seeding, and mulching will be used as a temporary E&S control measure on all disturbed areas as needed. Exposed soils not subject to construction traffic shall not remain unseeded or covered by mulch for more than twenty-one (21) days, including stockpiled soil materials. Refer to the seeding mixtures provided on the erosion and sedimentation control general notes drawing of the Erosion and Sediment Control Plan for temporary seed mixtures.

The contractor shall vegetate all disturbed areas at the earliest appropriate times for establishment of temporary or permanent seed mixtures, respectively. When site development staging or season $\frac{95}{29}$ 2015

permit timely sowing of the permanent seed mixture(s), prepare soils as for permanent seeding, seed with temporary seed mixture and mulch, and then over-sow the perennial seed mixture into the stubble of temporary vegetation at the next appropriate seeding season.

PERMANENT VEGETATIVE STABALIZATION

Fertilizing, seeding, and mulching will be used as a permanent E&S control measure on all disturbed areas. Refer to the permanent seed mixture provided on the erosion and sediment control plan's general notes drawing. The contractor shall inspect the site twice a week until a 70% perennial vegetative cover is established. The contractor is to place seed on all bare spots and disturbed areas not establishing ground cover.

ARO43305855

OPERATOR WELL NO. KST1EHS
Well Pad Name: KST1EHS

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

1) Well Operato	or: CNX (Gas Comp	any LLC	494458046	Harrison	Union	Big Isaac
,				Operator ID	County	District	Quadrangle
2) Operator's W	Vell Numbe	r: KST1E	HS	Well Pa	d Name: KST	1EHS	
3) Farm Name/	Surface Ow	vner: Mike	Ross INC	Public Ros	ad Access: Ka	affindaffer f	Rd
4) Elevation, cu	irrent groun	nd: 1394	E	Elevation, proposed	post-construct	ion: 1390	
5) Well Type	(a) Gas	X	Oil	Und	erground Stora	ige	
	Other						
	(b)If Gas	Shallow	X	Deep			
		Horizont	al X				
6) Existing Pad					_		
•	_			cipated Thickness a ss - 56', Pressure - 4		Pressure(s)):
8) Proposed To	tal Vertical	Depth: 7	460'				
9) Formation at				ga			
10) Proposed To	otal Measu	red Depth:	12740'				
11) Proposed H	orizontal L	eg Length:	3723'				
12) Approxima	te Fresh Wa	ater Strata l	Depths:	273', 587'			
13) Method to I	Determine I	Fresh Wate	Depths:	Offset Well Inform	nation		
14) Approximat							
15) Approximat	te Coal Sea	m Depths:	273', 587	21			
16) Approximat	te Depth to	Possible V	oid (coal n	nine, karst, other):	None Anticipa	ated	
17) Does Propo directly overlyi					No	x	
(a) If Yes, pro	vide Mine	Info: Nan	ne:				
(3) 11 1 00, pro		Dep					
		Sea					
		Owi					

18)

CASING AND TUBING PROGRAM

TYPE	Size	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu. Ft.)
Conductor	20"	N	J-55	94#	80'	80'	Grout to surface w/ Class A type cement
Fresh Water	13 3/8"	N	J-55	54.5#	650'	650'	CTS w/ Class A Type Cement
Coal							
Intermediate	9 5/8"	N	J-55	36#	3000'	3000'	CTS w/ Class A Type Cement
Production	5 1/2"	N	P-110	20#	12740'	12740'	2200 cu. ft. w/ 50/50 POZ Lead & Class
Tubing	2 3/8"	N	J-55	4.7#	7000'	7000'	
Liners							

10/8/2014 SDW

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	26"	0.438	2110	Class A Type	1.18
Fresh Water	13 3/8"	17 1/2"	0.380	2730	Class A Type	1.39
Coal						
Intermediate	9 5/8"	12 3/8"	0.352	3520	Class A Type	1.18
Production	5 1/2"	8 3/4" & 8 1/2"	0.361	14360	Class A Type	1.26
Tubing	2 3/8"	5 1/2" Csg	0.190	7700		(********
Liners						

PACKERS

Kind:	None	
Sizes:	None	RECEIVED
Depths Set:	None	Office of Oil and Gas

WV Department of Environmental Protection

API NO 3 3 0 5 8 5 5

OPERATOR WELL NO. KST1EHS
Well Pad Name: KST1EHS

18)

CASING AND TUBING PROGRAM

ТҮРЕ	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	N	J-55	94	80	80	90.3/ CTS
Fresh Water	13.375	N	J-55	54.5	700	650	401.2/ CTS
Coal							
Intermediate	9.675	N	J-55	36	3050	3000	735.2/ CTS
Production	5.5	N	P-110	20	12740	12690	1888.9
Tubing	2.375	N	J-55	4.7	7000	7000	
Liners							

ТҮРЕ	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Max. Associated Surface Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	26	0.438	2110	0	Class A	1.18
Fresh Water	13.375	17.5	0.380	2730	0	Class A	1.39
Coal							
Intermediate	9.675	12.25	0.352	3520	771.6	Class A	1.18
Production	5.5	8.75	0.361	14360	6336.2	Class A	1.26
Tubing	2.375	5.5 csg	0.190	7700			
Liners		-			_		

PACKERS

Kind:	None		
Sizes:	None		
Depths Set:	None		

19) Describe proposed well work, includir	g the drilling and p	plugging back	of any pilot hole:
---	----------------------	---------------	--------------------

Drill and stimulate new horizontal Marcellus well. Well to be drilled to a TMD of 12740'. Well to be drilled to a TVD of 7460', formation at TVD - Oriskany Sand. Well will be plugged back to an approximate depth of 6000' (approximate due to exact kick off point being unknown). Plugging back will be done using the displacement method and Class A Type cement. A solid cement plug will be set from TD to KOP. If an unexpected void is encountered, plan will be to set casing at a minimum of 30' past void and cement to surface with approved Class A type cement. There will not be any production, perforation, or stimulation of any formations below the target formation.

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

The stimulation will be multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. Max Pressure - 9500 psi. Max Rate - 100 bbl/min.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 38.3
- 22) Area to be disturbed for well pad only, less access road (acres): 8.9

23) Describe centralizer placement for each casing string:

Conductor - No centralizers used. Fresh Water & Coal - Bow spring centralizers on first joint then every fourth joint to 100 feet from surface. Intermediate - Bow spring centralizers one on the first two joints and every forth joint until inside surface casing. Production - Rigid bow spring centralizer on first joint then every 2 casing joints (free floating) through the lateral and the curve. (Note: cementing the 5 1/2" casing completely in open hole lateral and curve.)

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

Conductor - 2% CaCl2. Fresh Water/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

25) Proposed borehole conditioning procedures:

Conductor - The hole is drilled w/ air and casing ran in air. Apart from insuring the hole is clean via air circulation at TD there are no other conditioning procedures. Fresh Water/Coal - The hole is drilled w/ air and casing the hole is cleaned with fresh water and gel prior to cementing. Intermediate - The hole is drilled w/ air and casing is ran in air. Once casing is on bottom, the casing shoe will be cleared with the hole is drilled w/ air and casing is ran in air. Once casing is on bottom, the casing shoe will be cleared with the hole is cleared with the hole with the hole gets wet/damp during the drilling of all air holes with the exception of the conductor). Production - The hole will be drilled with synthetic oil base mud and once at Talthalane is circulated at a drilling pump rate until the hole is clean. Once casing is ran the hole is circulated for a minimum of one hole volume prior to pumping cement.

*Note: Attach additional sheets as needed.

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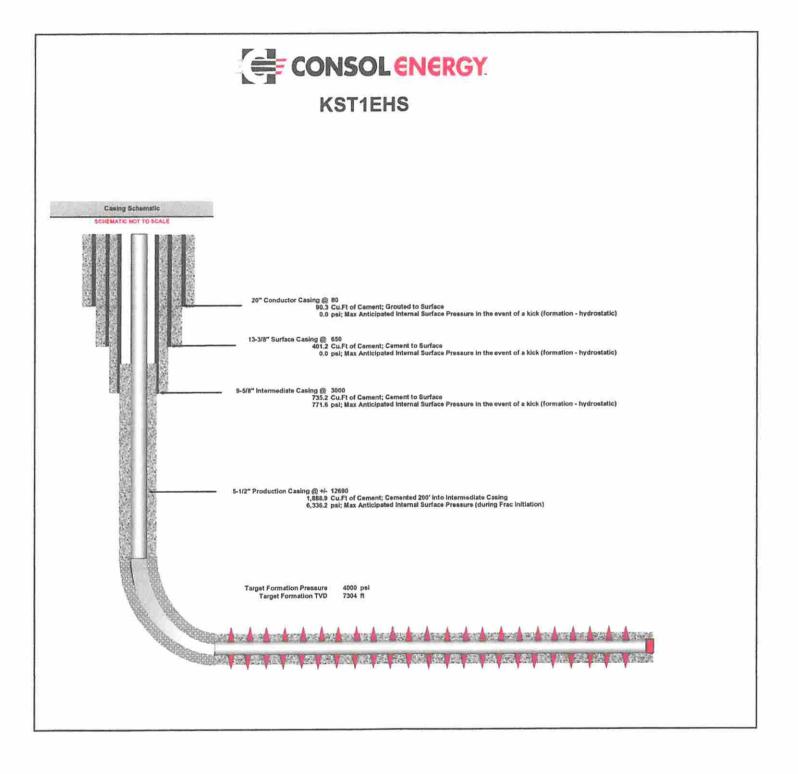
Cement Additives

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

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WV Department of Environmental Protection

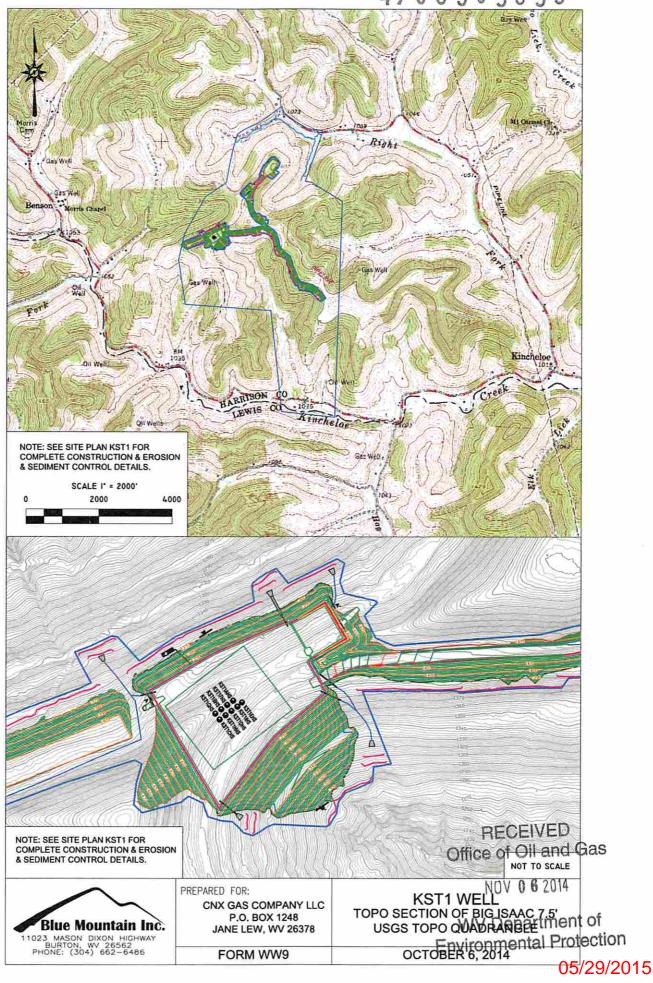


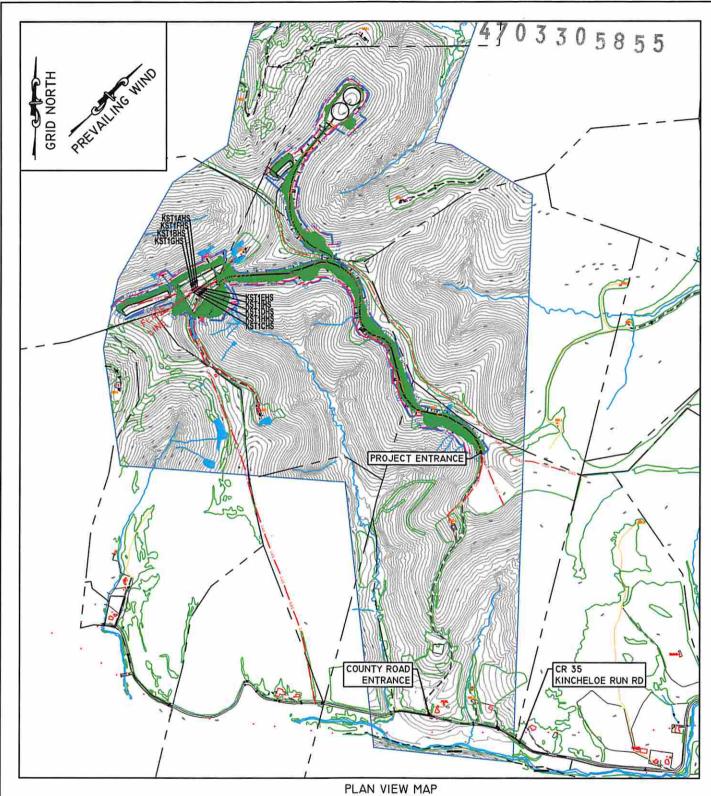
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name_CNX Gas Company LLC	OP Code _494458046
Watershed (HUC 10) Middle West Fork Creek	Quadrangle Big Isaac
Elevation 1394 Coun	ty_Harrison DistrictUnion
Do you anticipate using more than 5,000 bbls of Will a pit be used? Yes No	water to complete the proposed well work? Yes No
If so, please describe anticipated pit was	
Will a synthetic liner be used in the pit?	Yes No If so, what ml.? N/A
Proposed Disposal Method For Treated	Pit Wastes: 5D W
Reuse (at API Numbe	
Off Site Disposal (Suppose Other (Explain Recy	oply form WW-9 for disposal location) cle on other well on same pad or adjacent pads
Will closed loop system be used? If so, describe:	Yes, Cuttings/fluids separated with the use of a centrifuge/shaker, liquids recycled and solids disposed of at an approved landfill
Drilling medium anticipated for this well (vertical	and horizontal)? Air, freshwater, oil based, etc. Synthetic
-If oil based, what type? Synthetic, petro	bleum, etc.Synthetic
Additives to be used in drilling medium? Bacteridi	ce, Polymers, and Weighting Agents
Drill cuttings disposal method? Leave in pit, land	
	edium will be used? (cement, lime, sawdust) N/A
-Landfill or offsite name/permit number	Meadowfill, Northwestern Landfill, Max Environmental Yukon Landfill and Bulger Landfill
on August 1, 2005, by the Office of Oil and Gas of provisions of the permit are enforceable by law. law or regulation can lead to enforcement action. I certify under penalty of law that I has application form and all attachments thereto a obtaining the information, I believe that the impenalties for submitting false information, including	the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued of the West Virginia Department of Environmental Protection. I understand that the Violations of any term or condition of the general permit and/or other applicable are personally examined and am familiar with the information submitted on this and that, based on my inquiry of those individuals immediately responsible for formation is true, accurate, and complete. I am aware that there are significant ing the possibility of fine or imprisonment. RECEIVED Office of Oil and Gas
Company Official Signature Matthew Impire	
Company Official (Typed Name) Matthew Imric	MIT 11 11 11 11 11 11 11 11 11 11 11 11 11
Company Official Title Designated Agent - District	
ath	
Subscribed and sworn before me this 8 Clinabeth Blance My commission expires 6/23/2024	day of October , 20 Official Seal Notary Public, State Of West Virginia Elizabeth Blankership 941 Simpson Run Road Woston WW 56452 My control of the West Virginia Public State Of West Virginia Woston WW 56452 My control of the West Virginia Public State Of West Virginia Public State Office Virginia Public State Office Virginia Public State Office Virginia Public Virgi
My commission expires 4/03/0004	Sudden and a substantial and a

Proposed Revegetation Treatme	ant: A crac Dicturbed 3	8.3 Prevegetation pH	6.5
according to pH te	ent. Acres Disturbed	7.0	,
Lime10-20-	Tons/acre or to correct 20 or equivalent	et to pH	
Fertilizer type			
Fertilizer amount 50		lbs/acre	
{Mulch} hay or str	aw @ 2	_Tons/acre	
		Seed Mixtures	
Tem	porary	Perman	nent
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
Orawing(s) of road, location, provided)		and application (unless engineered plans inc	luding this info have bee
Drawing(s) of road, location, provided)	d 7.5' topographic sheet.		luding this info have bee
Orawing(s) of road, location, provided) Photocopied section of involved Plan Approved by:	d 7.5' topographic sheet.	27	
Drawing(s) of road, location, provided) Photocopied section of involved Plan Approved by:	d 7.5' topographic sheet.		
Photocopied section of involved Plan Approved by: Comments: Pre-seed /	d 7.5' topographic sheet. Poward Mulch all dist	When areas as seon as rets as needed per wl	easonably
Drawing(s) of road, location, provided) Photocopied section of involved Plan Approved by: Comments: Pre-Seed /	d 7.5' topographic sheet. Poward Mulch all dist	When areas as seon as rets as needed per wl	easonably
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Photocopied section of involved Plan Approved by: Comments: Pre-seed /	d 7.5' topographic sheet. Poward Mulch all dist	Whed areas as seen as rested per wl	easonably
Photocopied section of involved Plan Approved by: Comments: Pre-seed /	d 7.5' topographic sheet. Poward Mulch all dist	Whed areas as seen as rested per wl	easonably DEP DECEIVED
Drawing(s) of road, location, provided) Photocopied section of involved Plan Approved by: Comments: Pre-seed / Ass. He per regulat Ets manual	d 7.5' topographic sheet. P D Ward Mulch all dist	The wheel areas as seen as restand per will	RECEIVED fice of Oil and Ga NOV 0 6 2014





PLAN VIEW MAP Scale: I"=1000'

Blue Mountain Inc.

Engineers and Land Surveyors

11023 Mason Dixon Hwy. Burton, WV 26562-9656 (304) 662-6486

KSTIHS PLAN VIEW MAP KSTIHS WELL SITE

UNION DISTRICT HARRISON COUNTY, WV

CNX GAS COMPANY LLC ONE ENERGY DRIVE JANE LEW, WV 26378

DRAWN BY: NSH

CHECKED BY: WPF

DATE: 10/1/2014

SCALE: I"=1000'

JOB No. DWG NAME

KSTIHS PLAN VIEW MAP BWG



Blue Mountain Inc.

11023 Mason Dixon Hwy | Burton, WV 26562 Ph: (304) 662-6486 | Fax: (304) 662-6501

September 23, 2014

CNX GAS COMPANY P.O. BOX 1248 JANE LEW, WV 26378

WATER WELL REPORT

PROJECT:

KST1

DISTRICT:

BIG ISAAC

COUNTY:

Harrison

STATE:

West Virginia

The following surface owners may have water supplies within 2,000 feet of the above location:

NAME

ADDRESS

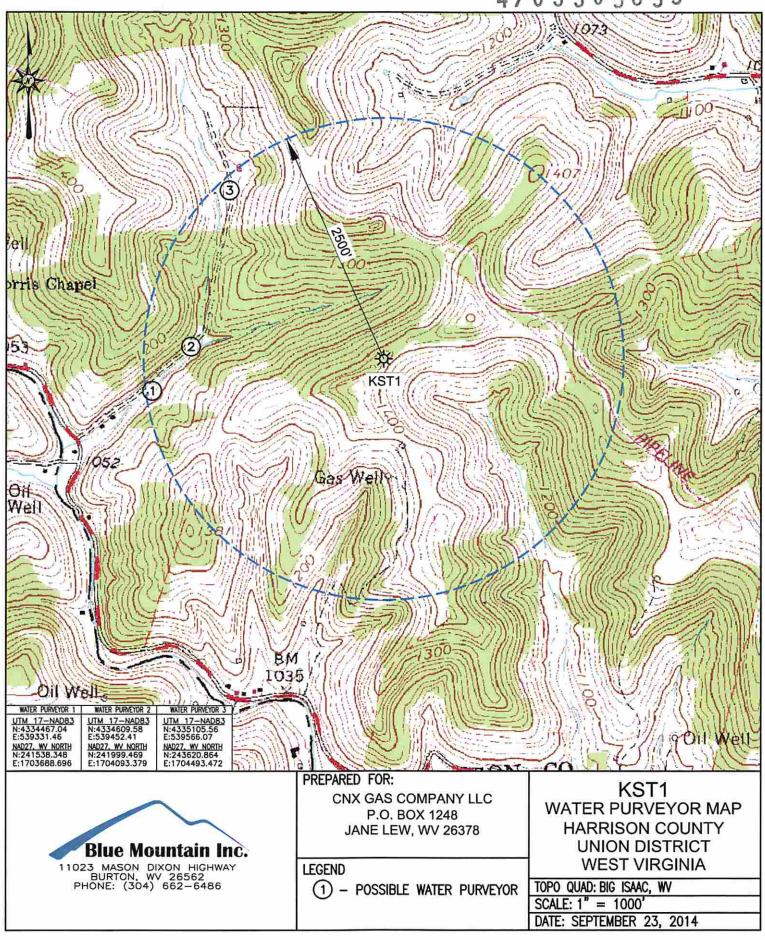
CITY, STATE, ZIP

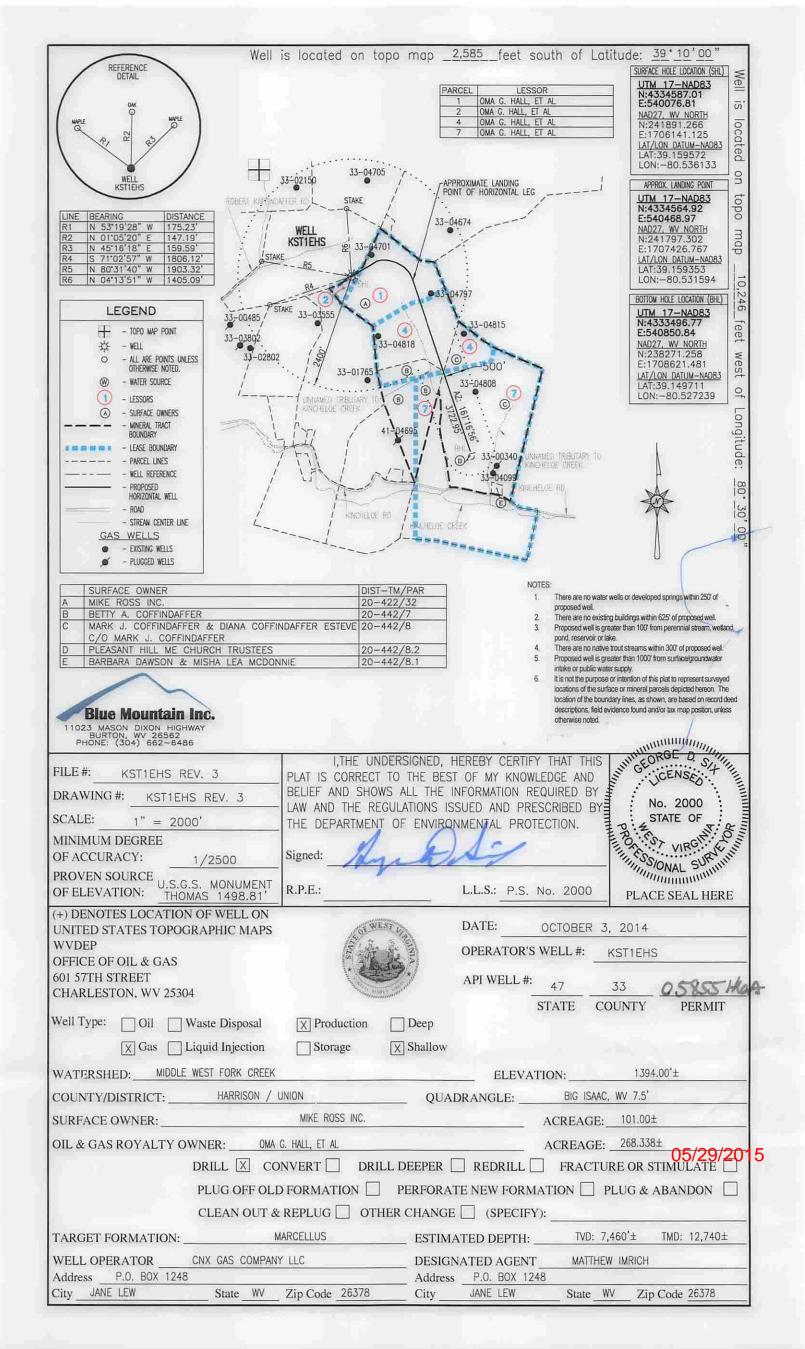
None

The following surface owners may have water supplies within 2,500 feet of the above location:

NAME	ADDRESS	CITY, STATE, ZIP
1) Robert Richards	RR 2 Box 133	Jane Lew, WV 26378
2) Dewain Titus Jr.	1856 Sams Creek Road	Mineral Wells, WV 26150
3) Mary Jo Short & Lou Ann Baker	8549 Good Hope Pike	Lost Creek, WV 26385

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WW-6A1 (5/13)

Operator's Well No. KST1EHS

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	Nam	e 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

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NOV 0 6 2014

WV Department of The applicant further acknowledges that any Office of Oil and Gas permit in no way protection 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

Well Operator: CNX Gas Company LLC

By:

Matthew Imrich

Its:

Designated Agent - District Operations Superintendent, WV Gas Operations

Page 1 of L 05/29/2015

Tract # Lease
1, 2, 4, 7 FK097991 Oma G. Hall, et al
Consolidated Gas Supply Corporation
Consolidated Gas Transmission Corporation
Consolidated Gas Transmission Corporation
Consolidate Gas Transmission Corporation
Consolidate Gas Transmission Corporation **CNG Transmission Corporation Dominion Transmission**

<u>Grantee. Lessee. etc</u> Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Development Company Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission CNX Gas Company

<u>Royalty</u>	Book/Page
1/8	1032/683
Assignment	1136/250
Assignment	1143/921
Assignment	1169/820
Merger/Name Change	Sec. State
Merger/Name Change	A01 58/362
Farmout	1522/33

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NOV 0 8 2014

WV Department of Environmental Protection WW-6AC (1/12)

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

Io. 47				
tor's Well No. KST				
Pad Name: KST1H	S			
ne required parties	with the Notice Forms listed			
g: 4,334,587.01m				
ing: 540,076.81m				
CR 35, Kinchelo	e Road			
ne: Mike Ross Inc				
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.				
ice Certification				
	OOG OFFICE USE ONLY			
ECAUSE NO DUCTED	RECEIVED/ NOT REQUIRED			
AS CONDUCTED	☐ RECEIVED			
ECAUSE SURVEY	☐ RECEIVED/ NOT REQUIRED			
RFACE OWNER				
	☐ RECEIVED			
	☐ RECEIVED			
	☐ RECEIVED			
-CEIVED	0.05			
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 Nighnia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavis of personal service, the return receipt card or other postal receipt for certified mailing.				
יים מי	ublication. The a			

05/29/2015

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Certification of Notice is hereby given:

THEREFORE, I Kelly Eddy , 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.

WV Gas Operations

Well Operator: CNX Gas Company LLC

By: Matthew Imrich Its: Designated Agent - District Operations Superintendent

Telephone: 304-884-2131 Address: P O Box 1248

Jane Lew, WV 26378

Facsimile: 304.884.2245

Email: kellyeddy@consolenergy.com

NOTARY SOFFACIAL SEAL **NOTARY PUBLIC** STATE OF WEST VIRGINIA CAROLINDA FLANAGAN PO Box 603 Lumberport WV 26386 My Commission Expires September 15, 2021

Subscribed and sworn before me this 10

Notary Public

My Commission Expires 09/15/2021

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.

> REGEIVED Office of Oil and Gas NOV 0 6 2014 WV Department of Environmental Protection

WW-6A (9-13) APIATO 47 5 5- 0 5 5 5 0 5 5 0 5 5 0 5 5 0 5 5 0 5 5 0

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

Noti	ce Time Requirement: notice shall be provided no later that	n the filing date of permit application.
	e of Notice: 10/6/14 Date Permit Application Filed: ce of:	
V	PERMIT FOR ANY WELL WORK CONSTRUCTION OF A	ROVAL FOR THE AN IMPOUNDMENT OR PIT
Deli	very method pursuant to West Virginia Code § 22-6A-10	(b)
		OD OF DELIVERY THAT REQUIRES A PT OR SIGNATURE CONFIRMATION
regis sedin the si oil an descrip opera more well impo have proving record proving Code water	tered mail or by any method of delivery that requires a receipt of the nent control plan required by section seven of this article, and the urface of the tract on which the well is or is proposed to be located gas leasehold being developed by the proposed well work, if the inbed in the erosion and sediment control plan submitted pursual actor or lessee, in the event the tract of land on which the well proposed well work, if the surface tract is to be used for the placement, construendment or pit as described in section nine of this article; (5) As a water well, spring or water supply source located within one ide water for consumption by humans or domestic animals; and desed well work activity is to take place. (c)(1) If more than three tection (b) of this section hold interests in the lands, the applicant do of the sheriff required to be maintained pursuant to section the R. § 35-8-5.7.a requires, in part, that the operator shall also purport of the place of the section of the sec	☑ Well Plat Notice is hereby provided to: ☑ COAL OWNER OR LESSEE
	e: Mike Ross Inc.	Name: See attached Address:
	n, WV 26257	Audicos.
	e: Dewain Titus Jr.	COAL OPERATOR
	ress: 1856 Sams Creek Road	Name: N/A
	Mells, WV 26150	Address:
	RFACE OWNER(s) (Road and/or Other Disturbance) e: Mark Coffindaffer	SURFACE OWNER OF WATER WELL
	ress: 77 President Drive	AND/OR WATER PURVEYOR(s)
	17000000	
	e: Betty Coffindaffer	Address:
	ress: 1909 Mineral Road	SECENED Gas
	ew, WV 26378	POPERATOR OF ANY NATURAL GAS STORAGE FIELD
	VRFACE OWNER(s) (Impoundments or Pits)	Name: See attached Address: OPERATOR OF ANY NATURAL GAS STORAGE FIELD Name: Dominion Transplace Field Address: 445 West Main Street
Nam		Name: Dominion Transports Of Pinc Address: 445 West Main Street Clarksburg, WV 26301
Addı	ress:	Clarksburg, WV 26301 NU
		*Please attach additional forms if necessary
		WV Dorntal Plots
		*Please attach additional forms if negetical Protection WV Departal Protection Environmental Protection
		Elin

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver of 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 Describer 31, 2010 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 affinding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items



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

Office of Oil and Gas

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

NOV 0 6 2014

Such persons may request, at the time of submitting written comments, notice of the perality constant protection test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT. Environmental protection

WW-6A (8-13) API NO.47 OPERATOR WELL NO. KST1EHS
Well Pad Name: KST1HS

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.

Office of Oil and Gas

NOV 0 6 2014

WV Department of Environmental Protection

WW-6A (8-13) API NO. 47-OPERATOR WELL NO. KSTIEMS Well Pad Name: KSTIHS

Notice is hereby given by:

Well Operator: CNX Gas Company LLG

Telephone: 304.884.2131

Email: kellyeddy@consolenergy.com

Address: P O Box 1248

Jane Lew, WV 26378

Facsimile: 304.884.2245

Oil and Gas Privacy Notice:

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

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CAROLINDA FLANAGAN
PO Box 603
Lumbarport WY 26366
My Commission Expires September 15, 2021

Office of Oil and Gas

NOV 0 6 2014

WV Department of Environmental Protection

05/29/2015

Surface Owner of Water Well and/or Water Purveyors:

Robert Richards RR2 Box 133 Jane Lew, WV 26378

4703305855

Dewain Titus Jr. 1856 Sams Creek Road Mineral Wells, WV 26150

Mary Jo Short & Lou Ann Baker 8549 Good Hope Pike Lost Creek, WV 26385

Coal Owner(s) only:

Eastern Associated Coal, LLC 500 Lee Street, Suite 900 Charleston WV, 25301

Coal and Mineral Owner(s):

James E. Patterson Trust c/o DLA Piper LLP The Marbury Building 6225 Smith Avenue Baltimore MD 21209-3600

Richard G. Hall 1701 Quarry Lane McKinney, TX 75070

Pamela Ann Shanklin 1100 Threadgrass Rd NE Rio Ranco, NM 87144-5759

Gertude Beall 410 E. Main Street Harrisville, WV 26362

Bertha Miller c/o Larry D. Miller 1515 Adair Blvd Cummings, GA 30040-4531

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Office of Oil and Gas

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WV Department of
Environmental Protection

05/29/2015

Coal and Mineral Owner(s) continued:

Jeffery J. Yost 3689 Wembly Lane Lexington, KY 40515

Brenda L. Yost 151 Gone Fishin Lane Berkeley Springs, WV 25411

Helen Jean Currence 249-A RR4 Elkins, WV 26241

Pamela K. Shrader PO Box 582 Petersburg, WV 26847

Beverly Ann Wilson Dunham 36869 3 Bridges Rd Willards, MD 21874

Ira O. Harris 29818 Deer Harbour Dr Salisbury, MD 21804

Gary Eugene Harris 67650 Green Timbers Rd Homer, AK 99603

Grover D. Mullenax 29 Laurel Apts. Belington, WV 26250

J. Beverly Johnson Young 19 Debbie Drive Gallipolis, OH 45631

Theresa Hall Uthe 21 N 122nd Ave Avondale, AZ 85323

Steve Hall 48625 Coldwater Creek Road Caldwell, OH 43724 4703305855

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Office of Oil and Gas

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Coal and Mineral Owner(s) continued:

Martha Ann Hall Montgomery 672 Lucille Drive Elyria OH 44035

James Patrick Hall 478 Grass Run Road Smithville, WV

Doris Jean Hall Farriah 2512 27th Street Parkersburg, WV 26101

Julie Hall Christensen 44 Wellington Rd Indianapolis, IN 46260

Brenda Hall Box 182 Macca, IN 47860

Valarie Hall Reed 1322 Barsville Ave Leesburg VA 20176

Medeta Treadwell 163 Moticello Circle Elyria, OH 44035

David A. Hall 4509 Young Road Glen Rock, PA 17327

Dana L. Hall 435 Spring Ave Clarksburg, WV 26301

Carola S. Hall Stephens 180 Van Clevesville Road Martinsburg, WV 25405

Alex Taylor 1826 Avenue B Billings MT 595503-9599 4703305855

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Coal and Mineral Owner(s) continued:

Nancy Y. Coleman 205 Echols Lane Lewisburg, WV 24901

Charles Ray Schola 118 Tygart Drive Phillipi, WV 26416

Linda Carol Hall Grams 80 North Wood Street Shinnston, WV 26431

Carolyn Lipscomb Hall 13002 Covered Bridge Rd Sellersburg, IN 47172-8604

John N. Hall 6370 Dockser Ter, Falls Church, VA 22041

Joann Marie Shifflet Hall 7160 Bensville Rd White Plains, MD 20695

Georgetta June Hall 1215 Fern Cir Saint Leonard, MD 20685

Donald R. Henderson 1348 Whispering Pines Dr. Clearwater, FL 33764

Kathryn Henderson PO Box 722 Hot Springs, VA 24445

Alice Jean Donell 408 Harwich Drive Morgantown, WV 26508

Benjamin McCoy 732 Elmwood Drive Davis, CA 95616-3517 Office of Oil and Gas

NOV 0 6 2014

WV Department of
Environmental Protection

Anna Belle Pilra 1317 Buttonwood Drive Fort Collins, CO 80525-1913

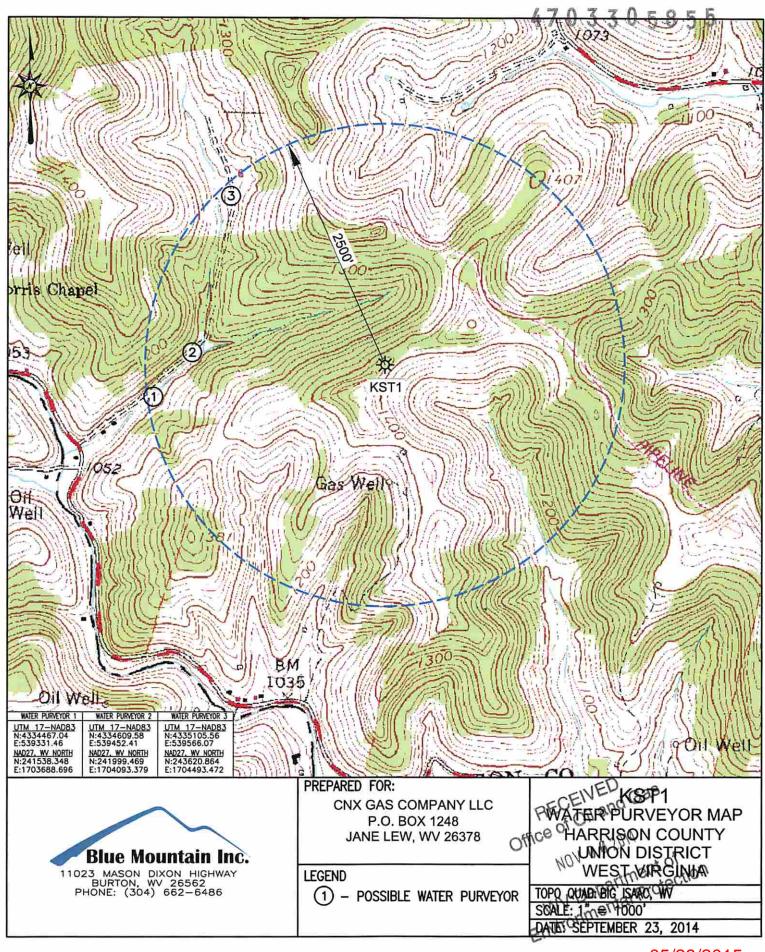
Donna Post Nash 112 Deer Brook Lane Mt. Airy, NC 27030

Larry Harwood Hall 2465 Edgewood Ave Burlington, NC 27215

Betty Sue Hartford 9404 West Kerry Lane Peoria, AZ 83582-3680

Harry James McCoy 1504 South Louddoun Street Winchester, VA 22601-4422

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WV Department of
Environmental Protection





11023 Mason Dixon Hwy | Burton, WV 26562 Ph: (304) 662-6486 | Fax: (304) 662-6501

September 23, 2014

CNX GAS COMPANY P.O. BOX 1248 JANE LEW, WV 26378

WATER WELL REPORT

PROJECT: KST1

DISTRICT: BIG ISAAC COUNTY: Harrison STATE: West Virginia

The following surface owners may have water supplies within 2,000 feet of the above location:

NAME ADDRESS CITY, STATE, ZIP

None

The following surface owners may have water supplies within 2,500 feet of the above location:

NAME	ADDRESS	CITY, STATE, ZIP
1) Robert Richards	RR 2 Box 133	Jane Lew, WV 26378
2) Dewain Titus Jr.	1856 Sams Creek Road	Mineral Wells, WV 26150
3) Mary Jo Short & Lou Ann Baker	8549 Good Hope Pike	Lost Creek, WV 26385

Office of Oil and Gas

NOV 0 6 2014

WV Department of
Environmental Protection

Operator Well No. KST1EHS 4703305855

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

Notice Time Requirement: Notice shall be provided at lea	ast SEVEN (7) days but no more tha	n FORTY-FIVE (45) days prior to
entry Date of Notice: 09/19/2014 and 10/2/2014 Date of Planned Entr	y: 9/26/2014	
Delivery method pursuant to West Virginia Code § 22-6	6A-10a	
☐ PERSONAL ☐ REGISTERED ■ M	ETHOD OF DELIVERY THAT RE	EQUIRES A
SERVICE MAIL RI	ECEIPT OR SIGNATURE CONFIR	MATION
Pursuant to West Virginia Code § 22-6A-10(a), Prior to filison to the surface tract to conduct any plat surveys required but no more than forty-five days prior to such entry to: (1) beneath such tract that has filed a declaration pursuant to see owner of minerals underlying such tract in the county tax reand Sediment Control Manual and the statutes and rules rel Secretary, which statement shall include contact information enable the surface owner to obtain copies from the secretary. Notice is hereby provided to:	pursuant to this article. Such notice set the surface owner of such tract; (2) section thirty-six, article six, chapter the ecords. The notice shall include a stated to oil and gas exploration and pon, including the address for a web parts.	shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any atement that copies of the state Erosion roduction may be obtained from the
*· *	GOAL OWNER OR LE	COPP
SURFACE OWNER(s)	COAL OWNER OR LE	
Name: Mike Ross Inc Address: PO Box 219	Name: See Attached	
Coalton, WV 26257	Address:	
Name: Dwain Titus, Jr.		
Address: 1856 Sams Creek Road	MINERAL OWNER(s)	
Mineral Wells, WV 26150	Name: See Attached	
Name:	Address:	
Address:		
	*please attach additional forms if ne	cessary
Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is he a plat survey on the tract of land as follows: State: wv	ereby given that the undersigned well Approx. Latitude & Longitude:	æ
County: Harrison	Public Road Access:	CR 35, Kincheloe Road
District: Union	Watershed:	Middle West Fork Creek
Quadrangle: Big Isaac	Generally used farm name:	Mike Ross Inc
Copies of the state Erosion and Sediment Control Manual a may be obtained from the Secretary, at the WV Departmen Charleston, WV 25304 (304-926-0450). Copies of such dobtained from the Secretary by visiting www.dep.wv.gov/obtained	t of Environmental Protection headq ocuments or additional information r	uarters, located at 601 57th Street, SE,
Notice is hereby given by:		
Well Operator: CNX Gas Company LLC	Address: P O Box 1248	
Telephone: 304-884-2131	Jane Lew, WV 26378	DECEIVED
Email: kellyeddy@consolenergy.com	Facsimile: 304.884.2245	of Oil and Gas
	Office	of Oil and Gas
Oil and Gas Privacy Notice:		

The Office of Oil and Gas processes your personal information, such as name, address and telephone hander, 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 unformation for the entered will appropriately secure your personal information. If you have any questions about our use or your personal information please contact Environmental Projection please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov. 05/29/2015

Surface Owner(s):

Mike Ross Inc P O Box 219 Coalton, WV 26257

Dwain Titus Jr 1856 Sams Creek Road Mineral Wells, WV 26150

Coal Owner(s) only:

Eastern Associated Coal, LLC 500 Lee Street, Suite 900 Charleston WV, 25301

Coal and Mineral Owner(s):

James E. Peterson Trust c/o DLA Piper LLP The Marbury Building 6225 Smith Avenue Baltimore MD 21209-3600

Richard G. Hall 1701 Quarry Lane McKinney, TX 75070

Pamela Ann Shanklin 1100 Threadgrass Rd NE Rio Ranco, NM 87144-5759

Gertude Beall 410 E. Main Street Harrisville, WV 26362

Bertha Miller c/o Larry D. Miller 1515 Adair Blvd Cummings, GA 30040-4531

Jeffery J. Yost 3689 Wembly Lane Lexington, KY 40515 RECEIVED
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Brenda L. Yost 151 Gone Fishin Lane Berkeley Springs, WV 25411

Helen Jean Currence 249-A RR4 Elkins, WV 26241

Pamela K. Shrader PO Box 582 Petersburg, WV 26847

Beverly Ann Wilson Dunham 36869 3 Bridges Rd Willards, MD 21874

Ira O. Harris 29818 Deer Harbour Dr Salisbury, MD 21804

Gary Eugene Harris 67650 Green Timbers Rd Homer, AK 99603

Grover D. Mullenax 29 Laurel Apts. Belington, WV 26250

J. Beverly Johnson Young 19 Debbie Drive Gallipolis, OH 45631

Theresa Hall Uthe 21 N 122nd Ave Avondale, AZ 85323

Steve Hall 48625 Coldwater Creek Road Caldwell, OH 43724

Martha Ann Hall Montgomery 672 Lucille Drive Elyria OH 44035 RECEIVED
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James Patrick Hall 478 Grass Run Road Smithville, WV

Doris Jean Hall Farriah 2512 27th Street Parkersburg, WV 26101

Julie Hall Christensen 44 Wellington Rd Indianapolis, IN 46260

Brenda Hall Box 182 Macca, IN 47860

Valarie Hall Reed 1322 Barsville Ave Leesburg VA 20176

Medeta Treadwell 163 Moticello Circle Elyria, OH 44035

David A. Hall 4509 Young Road Glen Rock, PA 17327

Dana L. Hall 435 Spring Ave Clarksburg, WV 26301

Carola S. Hall Stephens 180 Van Clevesville Road Martinsburg, WV 25405

Alex Taylor 1826 Avenue B Billings MT 595503-9599

Nancy Y. Coleman 205 Echols Lane Lewisburg, WV 24901 RECEIVED
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Charles Ray Schola 118 Tygart Drive Phillipi, WV 26416

Linda Carol Hall Grams 80 North Wood Street Shinnston, WV 26431

Carolyn Lipscomb Hall 13002 Covered Bridge Rd Sellersburg, IN 47172-8604

John N. Hall 6370 Dockser Ter, Falls Church, VA 22041

Joann Marie Shifflet Hall 7160 Bensville Rd White Plains, MD 20695

Georgetta June Hall 1215 Fern Cir Saint Leonard, MD 20685

Donald R. Henderson 1348 Whispering Pines Dr. Clearwater, FL 33764

Kathryn Henderson PO Box 722 Hot Springs, VA 24445

Alice Jean Benbowl 408 Harwich Drive Morgantown, WV 26508

Benjamin McCoy 732 Elmwood Drive Davis, CA 95616-3517

Anna Belle Pilra 1317 Buttonwood Drive Fort Collins, CO 80525-1913 REGEIVED
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KST1 Well Pad

Coal and Mineral Owner(s) continued:

Donna Post Nash 112 Deer Brook Lane Mt. Airy, NC 27030

Larry Harwood Hall 2465 Edgewood Ave Burlington, NC 27215

Betty Sue Hartford 9404 West Kerry Lane Peoria, AZ 83582-3680

Harry James McCoy 1504 South Louddoun Street Winchester, VA 22601-4422

Mineral Owner(s) only:

Allyson J. Swensson 98 Pepperbush Ln. Fairmont, WV 26554-8200

Mike Ross & Waco Oil & Gas PO Box 219 Coalton, WV 26527-0219

Gregory Hall 1298 Freshwater RD Eureka, CA 95503

Bertha Miller c/o Larry D. Miller 1515 Adair Blvd. Cummings, GA 30040-4531

Harry James McCoy 1504 South Louddoun Street Winchester, VA 22601-4422

Richard Cronin 9649 Norfolk Street Manassas, VA 20109 RECEIVED
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Mineral Owner(s) continued:

James B. Beall 107 Pullman Road Harrisville, WV 26362-9602

Milo H. Beall 695 Cooper St. Harrisville, WV 26362-9602

Paul D. Beall 811 East Main Street Harrisville, WV 26362-9602

John William Wildesen 3457 Uniontown Road Westminster, MD 21158

Charles Thomas Wildsen P O Box 19 Gormania, WV 26720

Patrick Corrigan 601 North Walnut Freeport, IL 61032

Jessica Taylor Fox 1020 Picador Way Billings, MT 59105-5438

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WW-6A5 (1/12)

4 7 0 3 3 0 5 8 5 5

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

Notice Ti		quirement: notice shall be prov 10/06/2014 Date Per		later than the filing oplication Filed:	date of permit	application.
Delivery 1	metho	d pursuant to West Virginia C	ode § 2	22-6A-16(c)		
		ED MAIL RECEIPT REQUESTED		HAND DELIVERY		
return rece the planne required to drilling of damages t	eipt reced oper to be profession of the profession of the center of the center of the second of the	quested or hand delivery, give the ration. The notice required by ovided by subsection (b), section izontal well; and (3) A propose surface affected by oil and gas of	this suntanted the surface of the su	ce owner whose land absection shall include this article to a surfa- ace use and compens as to the extent the da	will be used for de: (1) A copy ace owner whos ation agreemen amages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter. Sted in the records of the sheriff at the time
		provided to the SURFACE O				
Name: Mike			at the t		Dewain Titus Jr	
Address:			_		: 1856 Sams Creek	Road
Coalton, WV			_		/ells, WV 26150	
	o West on the	t Virginia Code § 22-6A-16(c), i surface owner's land for the pu		f drilling a horizonta UTM NAD 8	I well on the tra Easting: Northing:	well operator has developed a planned act of land as follows: 4,334,587.01m 540,076.81m
District:		nion		Public Road		CR 35, Kincheloe Road
Quadrang		g Isaac		Generally use	ed farm name:	Mike Ross Inc
Watershee	d: _Mi	ddle West Fork Creek				
Pursuant t to be prov horizontal surface af information	vided lawell; fected on relaters, local	by W. Va. Code § 22-6A-10(b) and (3) A proposed surface use by oil and gas operations to the ted to horizontal drilling may be cated at 601 57th Street, SE,	to a s and con e exten- be obtain	urface owner whose impensation agreement the damages are co- tined from the Secret	e land will be un nt containing an empensable und ary, at the WV	code section; (2) The information required used in conjunction with the drilling of a noffer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal duties of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requested of office will appropriately secure your personal information. If you have any questions about our use or your fersonal information, please contact NOV 0 6 2014 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

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

November 5, 2014

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

Subject: DOH Permit for the KST1HS Well Pad, Harrison County

Dear Mr. Martin,

Earl Ray Tomblin

Governor

This well site will be accessed from Permit #04-2014-0927 applied for by CNX Gas Company LLC for access to the State Road for a well site located off of Harrison County 35 SLS.

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

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Kelly Eddy CONSOL Energy CH, OM, D-4 File

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NOV 06 2014

WV Departmental Protection

WVDEP: Water Lisa Section V.1.0

Section V - Planned Additives to be used in Fracturing or Stimulations

Type: Friction Reducer (DWP-612)

Chemical Component as listed on MSDS: Long Chain Polyacrylamide

CAS: N/A

Type: Biocide (DWP-944)

1st Chemical Component as listed on MSDS: 2,2-Dibromo-3-nitrilogropionamide

CAS: 10222-01-2

2nd Chemical Component as listed on MSDS: Polyethylene Glycol Mixture

CAS: 25322-68-3

Type: Scals Inhibitor (DAP-901)

1st Chemical Component as listed on MSDS: Methanol

CAS: 67-56-1

2nd Chemical Component as listed on MSDS: Plasshoric Acid Ammonium Salt

CAS: Trade Secret

3rd Chemical Component as listed on MSDS: Ammonium Chloride

CAS: 12125-02-9

4th Chemical Component as listed on MSDS: Organic Phosphonate

CAS: Trade Secret

5th Chemical Component as listed on MSDS: Amine Salt

CAS: Trade Secret

6th Chemical Component as listed on MSDS: Oxyalkylated Polyamine

CAS: Trade Secret

Type: Surfactant (DWP-938)

Chemical Component as listed on MSDS: Soap

CAS: N/A

Type: Hydrochloric Acid

Chamical Component as listed on MSDS: Hydrochloric Acid

CAS: 7647-01-0

Type: PA Breaker (DWP-690)

Chemical Component as listed on MSDS: Hydrogen Peroxide

CAS: Trade Secret

Type: Gel Slurry (DWF-111)

Chemical Component as listed on MSDS: Viscosifier

CAS: N/A

Type: Oxidizer Breaker (DWP-901)

Chemical Component as listed on MSDS: Ammonium Persulfate

CAS: 7727-54-0

Type: Buffer (DWP-204)

Chemical Component as listed on MSDS: Formic Acid

CAS: 64-18-6

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LOCATION MAP

PROJECT INFORMATION

SURFACE OWNER:
MARK J COFFINDAFER
TAX MAP/PARCEL 20-44.2-8
TOTAL PROPERTY AREA: 119.78 Ac.

MIKE ROSS TAX MAP/PARCEL 20-422-32 TOTAL PROPERTY AREA 101.0 AC. MIKE ROSS TAX MAP/PARCEL 20-422-31 TOTAL PROPERTY AREA: 1.56 AC

> BETTY A. COFFINDAFER TAX MAP/PARCEL 20-L22-15 TOTAL PROPERTY AREA: 188, 98 AC. DEWAIN TITUS, JR. TAX MAP/PARCEL 20-442-30 TOTAL PROPERTY AREA: 89-47 AC.

SITE LOCATION

THE KSTIMS SITE IS LOCATED NORTH OF KINCHELDE ROAD (CR 35)
APPROXIMATELY 0,5 HILES WEST OF THE INTERSECTION OF COUNTY
ROAD 10/10 & KINCHELDE ROAD (CR 35).

ENTRANCE PERMIT

CNX GAS COMPANY WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MM-109) FROM THE WEST VIRGINIA DEPARTHENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

MISS UTILITY OF WEST VIRGINA WAS NOTFIED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN (TICKET NO. 1/26/160338) IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO THE START OF THE PROJECT. MISS UTILITY

FLOODPLAIN NOTE

SHEET INDEX

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT ARE NOT LOCATED IN A FLOOD ZONE, PER THE FLOOD INSURANCE RATE MAP (FIRM) NUMBERS \$4033C0220D.

DRA	DRAWING NUMBER	DRAWING NAME	DRAWING NUMBER	DPAWI
	-	COVER SHEET	0	TANK PAS
		GENERAL NOTES (1 OF 2)	- 11	ACCESS ROAD CRO
	•	GENERAL NOTES (2 OF 2)	=	ACCESS ROAD CRO
	7	ILT HILE BOUNDARY OVERVIEW	61	TANK ACCESS RD.
	in	EXISTING CONDITIONS	50	PECLAMATION
	42	DVERALL SITE PLAN	12	PECLAHATICA
		CHERALL SITE PLAN W/ DRTHO	77	RECLIPIATION
		DETAILED SITE PLAN (I OF 6)	22	RECLAMATION
		DETAILED SITE PLAN (2 OF 6)	558	RECLAMATION
	CI	DETAILED SITE FLAN (3 CF. 6)	52	PECLAHATION
(-	CETALED SITE PLAN (4 OF 6)	7.0	CONSTRUCTION
b	21	DETAILED SITE PLAN (5 OF 6)	13	constauction
5	13	DETAILED SITE PLAN (6 OF 6)	21	CONSTRUCTION
5	120	ROAD PROFILES & PAD SECTIONS	0.7	MATERIAL
ľ	19	ROAD SECTIONS	ATTACHMENT I	8212HS



WVDEP OOG 5-29-2015

APPROVED

CNX GAS COMPANY LLC JANE LEW, WV 26378 ONE ENERGY DRIVE

PAD SITE LOCATION

NAD 83 - LAT; N 39° 09' 34,85"; LONG; W 80° 32' 10.11" NAD 27 - LAT; N 39° 09' 34,52"; LONG; W 80° 32' 10.77" UTM (NAD83) - N: 4334599.059; E: 540075.925

TANK PAD SITE LOCATION

NAD 83 - LAT: N 39° 09' 54.07"; LONG: W 80° 31' 50.54" NAD 27 - LAT: N 39° 09' 53.74"; LONG: W 80° 31' 51.20' UTM (NAD83) - N: 4335193,955; E: 540542.537

ENTRANCE LOCATION

NAD 83 - LAT; N 39° 08' 51.33°; LONG; W 80° 31' 39.42° NAD 27 - LAT; N 39° 08' 51.00°; LONG; W 80° 31' 40.08"

UNION DISTRICT,

UTM (NAD83) - N: 4333261.431; E: 540819.480

HARRISON COUNTY, WEST VIRGINIA

DATE: OCTOBER I, 2014

REVISED: MARCH II, 2015

Blue Mountain Inc.

Engineers and Land Surveyors 11023 Mason Dixon Hwy. Burton, WY 26562-9656 (304) 662-6486 NOTE: DRAWING WAS CREATED ON 22X34 PAPER, IIXI7 BRAWINGS ARE HALF SCALE, REFER TO SCALE BAR FOR PROPER SCALING.



2011 SEED 10 ACTIVE SEED 12011

Slue Mountain Inc

ENVIRONMENTAL NOTES

COVER KSTTHS WELL SITE

> 10TH 2014 REPORT FOR KSTIHGS, WHICH WAS PREARED BY BLUE MOUNTAIN INC. SUMMARREES THE REBLACT FOR THE FIELD DELIVEATION. THE REPORT DOES NOT, IN ANY MAY REPREESTLY A JURISDICTIONAL DETERMATION OF THE LANDWARD LIMITS OF MATERS AND WELLANDS WHICH MAY REPREEST BY THE USACE OF WUDEP. IT IS STRONGLY RECOMESTED THAT THE AFOREHENTIONED ACRICIES BE CONSULTED IN AN EFFORT TO CAIN COMPREMATION OF THE DELINEATION BECOMES THE REPORT FRING TO EVALUATE OF THE REPORT FRING TO EVALUATE THE PRICE TO SAIN STRUCKING THE PROPERTY DECIDED HERIN. THE EVENTUAL OF THE PROPERTY FRING THE REPORT OF SAIN STATE REQUIRED FROM THE PROPERTY DECIDED HERIN. THE EVENTUAL STATE REQUIRED HERIN. THE MAYOR STATE REQUIRED HERIN TO ANY PROPOSED HERIN. THE WAYOR STATE REQUIRED HERIN. A WETLAND DELINEATION WAS PERFORMED ON APRIL 9-10 2014, JULY 21-22 2014, & SEPTEMBER 5TH, 2014 BY BLUE MONATAIN INC. TO REVIEW THE SITE OF WATERS AND WETLANDS THAT ARE HOST LIKELY WITHIN THE REGULATIONY PRINCIP THE U.S., ARMY CORPS OF ENOMERGS AND/OR THE VISIT VISIONIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE SEPTEMBER

CHXCY2

SEOTECHNICAL NOTES

A SUBJURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED IN THE ELLED WE ETTER MASOLUTES, INC ENTERNES SEPTEMBER 25, 2014, "THE REPORTS PREMARED BY RETITEM ASSOCIATES, INC. DATED OCTOBEN 16, 2014, RELECTS THE RESULTS OF THE SUBSURFACE INSTITUTION." THE ASSISTENCE TO THE SUBSURFACE INVESTIGATION, THE ASSISTENCE TO THE SUBSURFACE INVESTIGATION, THE ASSISTENCE TO THE SUBSURFACE INVESTIGATION AS NEEDED.

RESTRICTIONS

1. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300" OF

THEE ALSO MENOMENTER WIAME OF PUBLIC WATER SUPPLY FACULTIES WITHIN 1000' OF THE PAD AND LOD.

3. THERE ARE NO EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF THE WILLS BEING DRILLED.

4. THERE ARE NO OCCUPIED MELLING STRUCTURES WITHIN 628' OF THE WELLS PAD ASSICULTURES WITHIN 628' OF THE FEBT AND COLUMN BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625' OF THE CENTER OF THE PAD.

Know what's below.

Call before you dig.

CERTIFICATION

LO DO PERGEN CERTEN TO THE SETT OF HY MONAGEDGE. NEGRALITION AND RELEFT.

THAT THE ENGINE AND SEDIMENT CONTROL PLAN AND SETE RESTORATION PLAN
AND PROST CONSTRUCTION BITTS ARE THOSE AND CONTROL. MEMBERS AT ACTION.

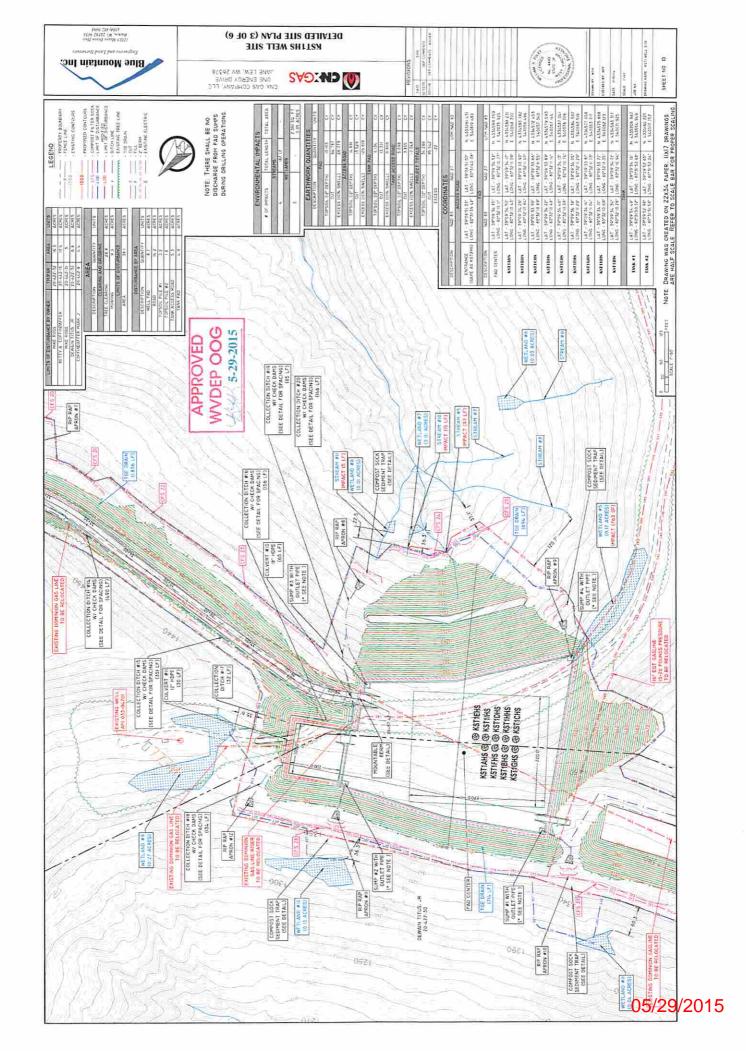
FILE DECONOMINATION AND ARE A ACCESSIONED. THE THIN THE WEST AND THE THE PROPERTY THE DESCRIPTION AND A SOBJECTION OF THE DESCRIPTION OF THE PROSTRUCTION OF THE PROSTRUCTION OF THE DESCRIPTION OF TH

Williams Blay SIGNATURE

DATE: 03/11/2015

SHEET NO 1

at athem the ey also \$1720.27 APP ATT MEDICA





5DW 10/8/2014 Adolitional permits may be required from other agencies.



CNX GAS COMF ONE ENERGY JANE LEW, WY

KST1HS W

PAD SITE LO

NAD 83 - LAT: N 39° 09' 34.85 NAD 27 - LAT: N 39° 09' 34.52'

UTM (NAD83) - N: 4334599

TANK PAD SITI

NAD 83 - LAT: N 39° 09' 54.0

NAD 27 - LAT: N 39° 09' 53.7

UTM (NAD83) - N: 433519

ENTRANCE

NAD 83 - LAT: N 39° 08' 51.3

NAD 27 - LAT: N 39° 08' 5!.0

UTM (NAD83) - N: 4333;

UNION DIS

HARRISON COUNTY.

DATE: OCTOB



Engineers and Lar

11023 Mason D Burton, WV 26. (304) 662-6

LOCATION MAP

PROJECT INFORMATION

SURFACE OWNER:

MARK J. COFFINDAFER TAX MAP/PARCEL 20-442-8 TOTAL PROPERTY AREA: 119.78 AC.

BETTY A. COFFINDAFER TAX MAP/PARCEL 20-422-15 TOTAL PROPERTY AREA: 188.98 AC.

DEWAIN TITUS, JR. TAX MAP/PARCEL 20-442-30 TOTAL PROPERTY AREA: 89.47 Ac.

SITE LOCATION:

THE KSTIHS SITE IS LOCATED NORTH OF KINCHELOE ROAD (CR 35), APPROXIMATELY 0.5 MILES WEST OF THE INTERSECTION OF COUNTY ROAD 10/10 & KINCHELOE ROAD (CR 35).

MIKE ROSS

MIKE ROSS

TAX MAP/PARCEL 20-422-32

TAX MAP/PARCEL 20-422-31

TOTAL PROPERTY AREA: 101.0 AC.

TOTAL PROPERTY AREA: 1.56 AC.

ENTRANCE PERMIT

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FLOODPLAIN NOTE

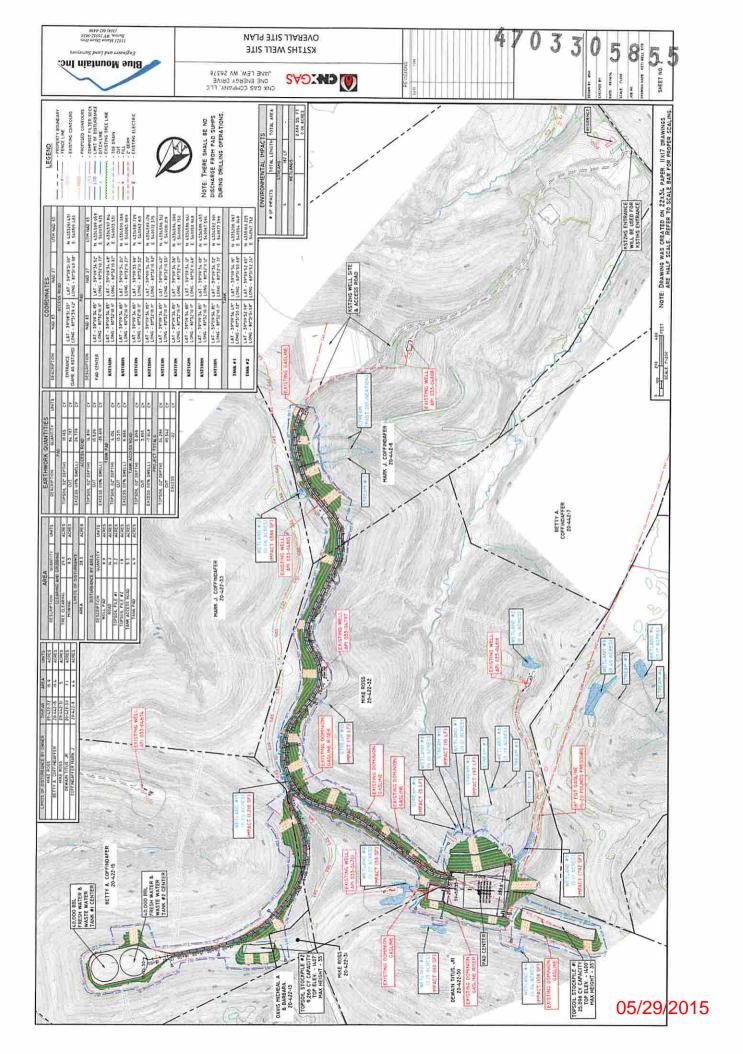
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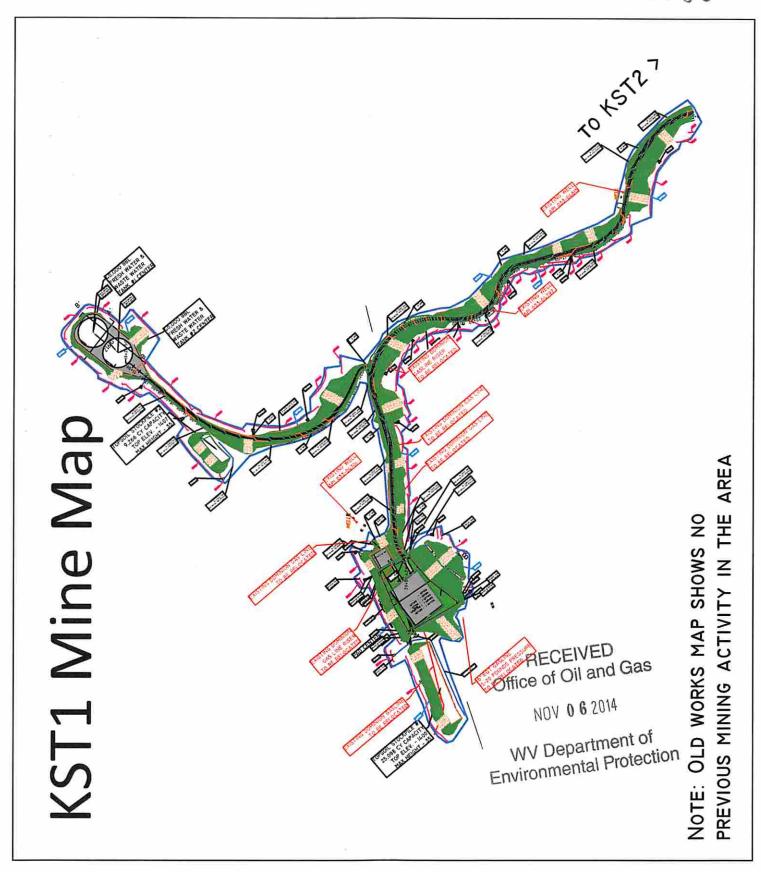
SHEET INDEX		
DRAWING NUMBER	DRAWING NAME	
	COVER SHEET	
2	GENERAL NOTES (I OF 2)	
3	GENERAL NOTES (2 OF 2)	
4	1/2 MILE BOUNDARY OVERVIEW	
5	EXISTING CONDITIONS	
6	OVERALL SITE PLAN	
7	OVERALL SITE PLAN W/ ORTHO	
8	DETAILED SITE PLAN (I OF 6)	
9	DETAILED SITE PLAN (2 OF 6)	
10	DETAILED SITE PLAN (3 OF 6)	
li li	DETAILED SITE PLAN (4 OF 6)	
12	DETAILED SITE PLAN (5 OF 6)	
13	DETAILED SITE PLAN (6 OF 6)	

SHEET INDEX		
DRAWING NUMBER	DRAWING NAME	
14	ROAD PROFILES & PAD SECTIONS	
15	ROAD SECTIONS	
16	TANK PAD SECTIONS	
17	RECLAMATION PLAN (I OF 6)	
18	RECLAMATION PLAN (2 OF 6)	
19	RECLAMATION PLAN (3 OF 6)	
20	RECLAMATION PLAN (4 OF 6)	
21	RECLAMATION PLAN (5 OF 6)	
22	RECLAMATION PLAN (6 OF 6)	
23	CONSTRUCTION DETAIL (I OF 3)	
24	CONSTRUCTION DETAIL (2 OF 3)	
25	CONSTRUCTION DETAIL (3 OF 3)	
26	MATERIALS QUANTITY	

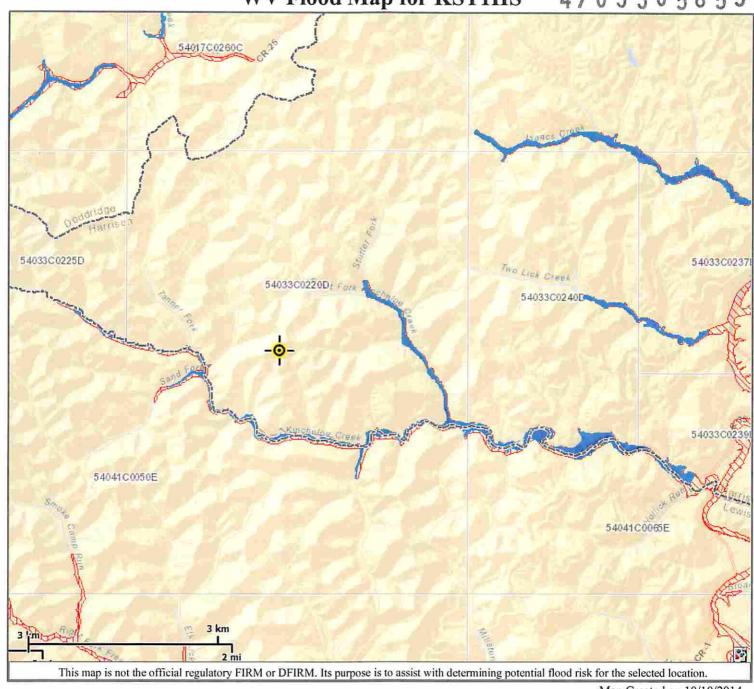
NOTE: DRAWIN DEAS CREATED ON 2

ARE HALF SCALE. REFER TO

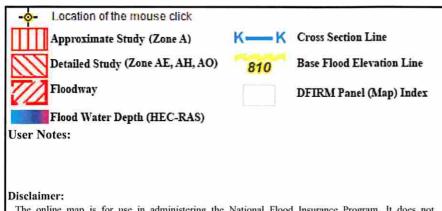




WV Flood Map for KST1HS 4703305855



Map Created on 10/10/2014



The online map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. To obtain more detailed information in areas where Base Flood Elevations have been determined, users are encouraged to consult the latest Flood Profile data contained in the official flood insurance study. These studies are available online at www.msc.fema.gov.

WV Flood Tool is supported by FEMA, WV NFIP Office, and WV GIS Technical Center (http://www.MapWV.gov/flood)

Flood Hazard Area: Selected site is WITHIN the FEMA 100-year floodplain.

Advisory Flood/Freight: N/A
Water Depthinand Gas

Water Depetrinand Gas
Office of About 1324 feet

Location (Jones Jack) 180.534249 W, 39.159359 N

Location (UTM 17N): (540240, 4334564)
FEMA Issuer Blood Wap: 54033C0220D

Contacts: Herrison County
ECRS Information: N/A
Flood Profile: No Profile
HEC-RAS Model: No Model

Parcel Number:

05/29/2015