

V. WHITE LEASE WELL NO. CENT 3 AHS

**WELL NO. CENT 3 AHS
STATE PLANE COORDINATES
SOUTH ZONE (NAD'27)**
N. 749,980
E. 2,231,427

**LAT=(N) 39.06675
LONG=(W) 80.18510**

**UTM (NAD'83)
N. 4,323,401
E. 570,524**

A	MARCIE & RANDALL KIRCHBERG	25.47 AC±
B	MARCIE & RANDALL KIRCHBERG	18.638 AC±
C	KYLE & MARILYN LINGER	31.62 AC±
D	ROGER & BARBARA ZICKEFOOSE	13.994 AC±
E	LUETTA & WALTER V. SINCLAIR JR.	35.57 AC±
F	JAMELLA & JOHN LOCKWOOD	15.14 AC±
G	LUETTA & WALTER SINCLAIR	53.773 AC±
H	KELLY & RONALD AUSTIN	0.9 AC±
I	ROD & ROSA SHAVER	29.998 AC±
J	JOSEPH & MARY CARPINO	47.54 AC±
K	ERIC D. DENTON	1.85 AC±
L	PATRICIA & MARSHALL III TETRICK	1.626 AC±
M	RANDALL & MELISSA TOLLIVER	0.57 AC±
N	GARY WILSON	1.12 AC±
O	JOSHUA & TELENNA BENDER	2 AC±

**WELL NO. CENT 3 AHS
HEEL POINT
STATE PLANE COORDINATES
SOUTH ZONE (NAD'27)**
N. 748,727
E. 2,230,070

**HEEL POINT (NAD'27)
LAT=(N) 39.05394
LONG=(W) 80.18992**

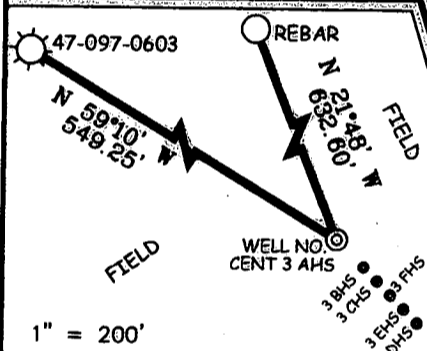
**HEEL POINT UTM (NAD'83)
N. 4,323,019
E. 570,111**

**WELL NO. CENT 3 AHS
TOE POINT
STATE PLANE COORDINATES
SOUTH ZONE (NAD'27)**
N. 741,891
E. 2,232,558

**TOE POINT (NAD'27)
LAT=(N) 39.03451
LONG=(W) 80.18137**

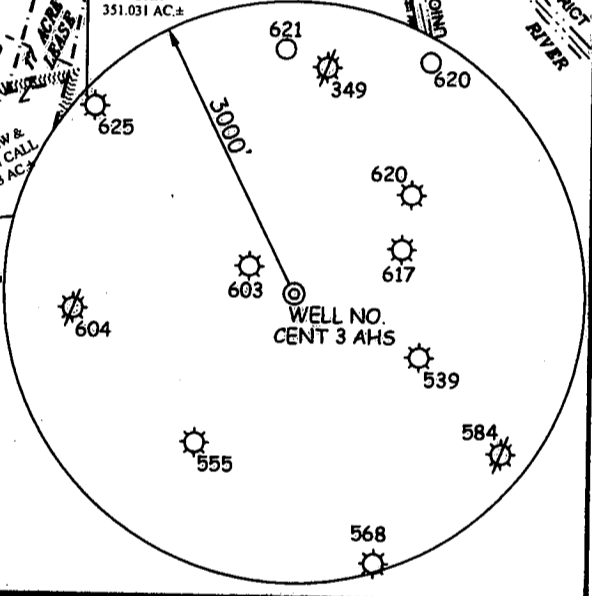
**TOE POINT UTM (NAD'83)
N. 4,320,937
E. 570,869**

REFERENCES



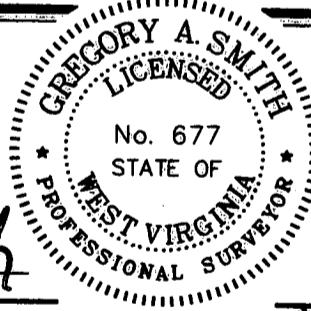
NOTES ON SURVEY

1. TIES TO WELLS, REFERENCES, AND CORNERS ARE BASED ON GRID SOUTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED BOOK 37 PAGE 342 AND ADJOINING DEEDS AND WELL PLATS.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF UPSHUR COUNTY IN JULY, 2012.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SURVEY GRADE).
5. THIS PROPOSED WELL DOES MEET THE STATE REQUIREMENT FOR A DEEP WELL TO BE 400' FROM THE LEASE AND/OR UNIT BOUNDARY.



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


P.S. 677
Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE AUGUST 9, 20 13
OPERATORS WELL NO. CENT 3 AHS
API WELL NO. 47-97 MOD 03847H6A
STATE WEST VIRGINIA COUNTY UPSHUR PERMIT 03847H6A

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 7808P3AHSR7 (422-67)
PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE) SCALE 1" = 2000'

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



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1534.2' WATERSHED PECKS RUN
DISTRICT WARREN COUNTY UPSHUR QUADRANGLE CENTURY 7.5'

SURFACE OWNER RUSSELL HELTON ACREAGE 47±
ROYALTY OWNER V. WHITE ET AL LEASE ACREAGE 64, 133, 90, 101, 52.2, 124, & 124±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
ESTIMATED DEPTH TVD 8,205' / TMD 16,996'

WELL OPERATOR CNX GAS COMPANY, LLC. DESIGNATED AGENT JEREMY JONES
ADDRESS P.O. BOX 1248 ADDRESS P.O. BOX 1248
JANE LEW, WV 26378 JANE LEW, WV 26378

COUNTY NAME
PERMIT

Company Name: CNX Gas Company LLC

API No: 47-097-03847H

County: Upshur

District: Warren

Well No: CENT3AHS

Farm Name: HELTON, RUSSELL

Top Hole Drilling H₂O.

Discharge Dates/s From:(MMDDYY) 08/18/2013 To: (MMDDYY) 08/29/2013

Discharge Times. From 2:00 AM To: 3:00 PM

Total Volume to be Disposed from this facility (gallons): 31,080

Disposal Option(s) Utilized (write volumes in gallons): 31,080

- (1) Land Application: _____ (Include a topographical map of the Area.)
- (2) UIC: _____ Permit No. 47-001-03247H
- (3) Offsite Disposal: _____ Site Location: PHL4 Impoundment Pit
- (4) Reuse: 31,080 Alternate Permit Number: _____
- (5) Centralized Facility: _____ Permit No. _____
- (6) Other method: _____ (Include an explanation)

Follow Instructions below to determine your treatment category:

Optional Pretreatment test: _____ Cl- mg/l _____ DO mg/l

1. Do you have permission to use expedited treatment from the Director or his representative? (Y/N) ____ If yes, who? _____ and place a four (4) on line 7. If not go to line 2.
2. Was Frac Fluid or flowback put into the pit? (Y/N) ____ If yes, go to line 5. If not, go to line 3.
3. Do you have a Chloride value pretreatment (see above)? (Y/N) ____ If yes go to line 4. If not go to line 5.
4. Is the Chloride level less than 5000 mg/l? (Y/N) ____ If yes, then enter a one (1) on line 7.
5. Do you have a pretreatment value for DO? (See above) (Y/N) ____ If yes, then go to line 6. If not, enter a three (3) in line 7.
6. Is the DO level greater than 2.5 mg/l? (Y/N) ____ If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
7. _____ is the category of your pit. Use the Appropriate section.
8. Comments on Pit condition: _____

RECEIVED
Office of Oil & Gas

DEC 3 2013

Name of Principal Exec. Officer: Jeremy Jones

Title of Officer: General Manager Capital - NWV Gas Ops

Date Completed: _____

WV Department of Environmental Protection

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the 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.

Signature of a Principal Exec. Officer or Authorized agent.

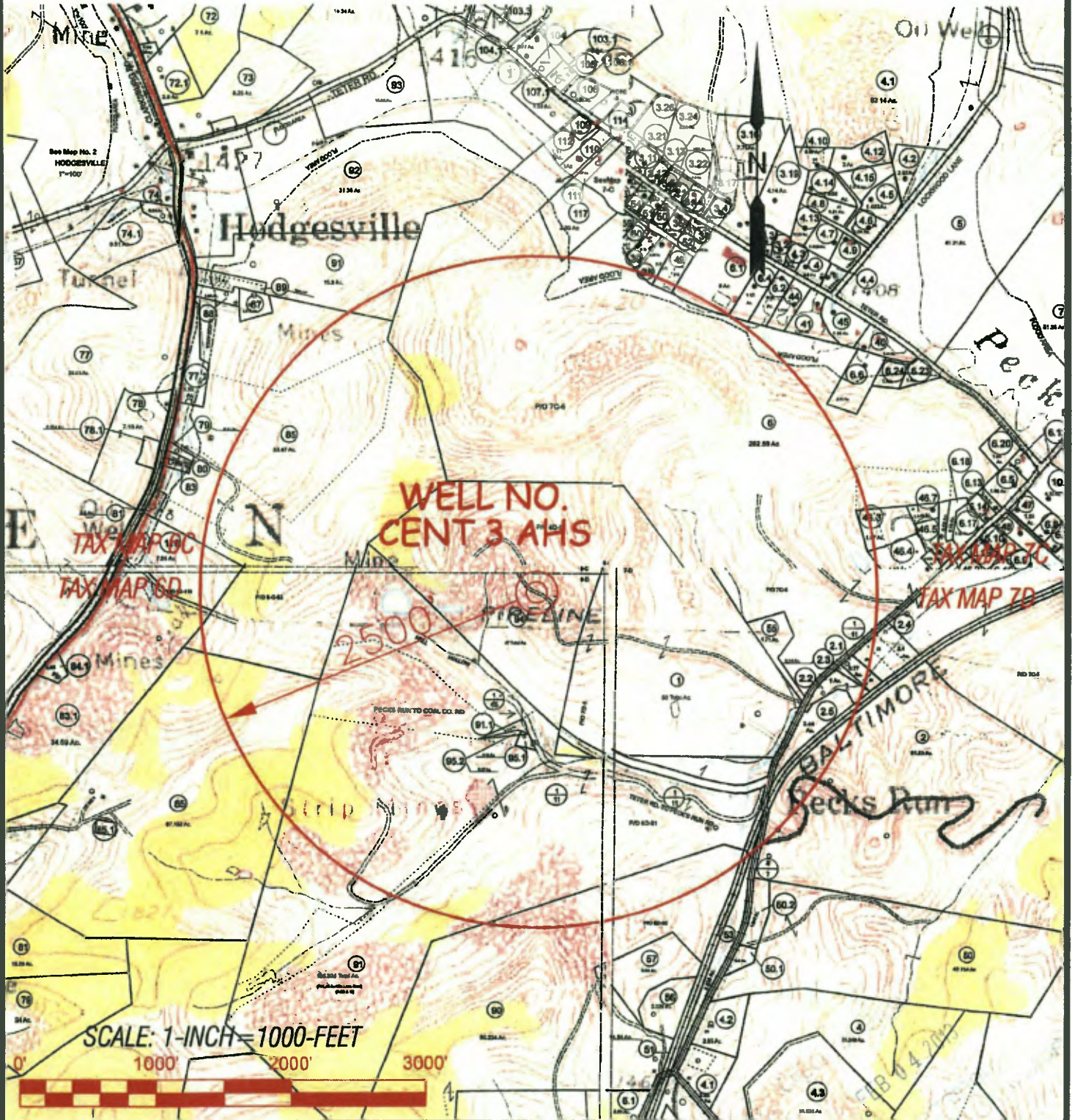
[Handwritten Signature]
11/20/13

Created: (11/8/2013)
Permit Issued Date: 07/11/2013

BC

WATER SAMPLES

V. LEASE WELL NO. CENT 3 AHS



Professional Energy Consultants
A DIVISION OF SLS LAND SURVEYING, INC.

SLS
SURVEYORS
PROFESSIONAL ENGINEERS

224 West Main St.
P.O. Box 524
Martinsburg, WV 26151
(304) 263-2834

2001 State Office Plaza
Martinsburg, WV 26107
(304) 511-9939

DRAWN BY: K.D.W.
FILE NO.: 7898
DATE: 01-25-13
CADD FILE: 7898WS3AHS.dwg

TOPO SECTION OF:
CENTURY, WV 7.5' QUAD.

COUNTY	DISTRICT	TAX MAP-PARCEL NO.
UPSHUR	WARREN	6D-94

OPERATOR:
CNX GAS COMPANY, LLC.
P.O. BOX 1248
JANE LEW, WV 26379

PM

March 7th, 2014

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 097 - 3847 County Upshur District Warren
Quad Century Pad Name CENT3HS Field/Pool Name CENTURY
Farm name HELTON, RUSSELL Well Number CENT3AHS
Operator (as registered with the OOG) CNX Gas Company, LLC
Address P.O. Box 1248 City Jane Lew State WV Zip 26378

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,323,401m Easting 570,524m
Landing Point of Curve Northing 4,323,019m Easting 570,111m
Bottom Hole Northing 4,321,531m Easting 570,653m

Elevation (ft) 1534.2 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Waterbased Mud, Bactericide, Polymers and Weighting Agents.

Date permit issued 7/11/2013 Date drilling commenced 8/5/2013 Date drilling ceased 10/4/2013
Date completion activities began 11/11/2013 Date completion activities ceased 11/24/2013
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 1370', 1395', 1426', 1500', 1530' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1550' Void(s) encountered depths N
Coal depth(s) ft None Reported Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

MAR 11 2014

Reviewed by:
[Signature]

API 47-097 - 3847

Farm name HELTON, RUSSELL

Well number CENT3AHS

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	26"	20"	100'	N	L.S. 81.3 / 100'	N/A	N
Surface	17 1/2"	13 3/8"	1019'	N	J-55 54.5 / 1019'	45'/126'	Y
Coal	-	-	-	-	-	-	-
Intermediate 1	12 3/8"	9 5/8"	2521'	N	J-55 36 / 2521'	40'/122'	Y
Intermediate 2	-	-	-	-	-	-	-
Intermediate 3	-	-	-	-	-	-	-
Production	8 3/4" & 8 1/2"	5 1/2"	16223'	N	P-110 20 / 16223'	N/A	Y
Tubing	8 3/4" & 8 1/2"	2 3/8"	8405'	N	J-55 4.7 / 8405'	N/A	N
Packer type and depth set		None					

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	Grouted In	15.6	1.18	150.5	Surface	8
Surface	Class A	851.6	15.6	1.20	1010.6	Surface	8
Coal	-	-	-	-	-	-	-
Intermediate 1	Class A	775	15	1.29	954.48	Surface	8
Intermediate 2	-	-	-	-	-	-	-
Intermediate 3	-	-	-	-	-	-	-
Production	Class A (Lead) / Class A (Tail)	173.9 bbls (bbls) / 462.4 (bbls)	14.2/14.8	1.26	3572.87	2000'	8
Tubing	-	-	-	-	-	-	-

Drillers TD (ft) 7785'

Loggers TD (ft) 7528.95'

Deepest formation penetrated Onodaga

Plug back to (ft) 7785'-5400'

Plug back procedure Solid Plug from 7785'-5400'

Kick off depth (ft) 6091'

Check all wireline logs run

- caliper
 density
 deviated/directional
 induction
 neutron
 resistivity
 gamma ray
 temperature
 sonic

Well cored Yes No

Conventional Sidewall

Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED 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 fourth 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.)

WAS WELL COMPLETED AS SHOT HOLE Yes No

DETAILS Plug and Perforation Shot Hole

WAS WELL COMPLETED OPEN HOLE? Yes No

DETAILS _____

WERE TRACERS USED Yes No

TYPE OF TRACER(S) USED _____

MAR 11 2013

Receiving Office of Oil & Gas

API 47-097-03847H Farm name HELTON, RUSSELL

Well number CENT3AHS

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number Of Perforations	Formation(s)
1	11/11/2013	16190	15940	4	Marcellus
2	11/12/2013	15871	15629	5	Marcellus
3	11/12/2013	15571	15329	5	Marcellus
4	11/13/2013	15271	15029	5	Marcellus
5	11/13/2013	14971	14729	5	Marcellus
6	11/13/2013	14971	14729	5	Marcellus
7	11/14/2013	14386	14264	5	Marcellus
8	11/14/2013	14221	13979	5	Marcellus
9	11/15/2013	13921	13679	5	Marcellus
10	11/15/2013	13621	13379	5	Marcellus
11	11/16/2013	13321	13079	5	Marcellus
12	11/16/2013	13021	12779	5	Marcellus
13	11/17/2013	12721	12479	5	Marcellus
14	11/17/2013	12421	12179	5	Marcellus
15	11/18/2013	12121	11879	5	Marcellus
16	11/18/2013	11821	11579	5	Marcellus
17	11/19/2013	11521	11279	5	Marcellus
18	11/20/2013	11221	10979	5	Marcellus
19	11/20/2013	10921	10679	5	Marcellus
20	11/21/2013	10621	10379	5	Marcellus
21	11/21/2013	10336	10214	5	Marcellus
22	11/22/2013	10171	9929	5	Marcellus
23	11/22/2013	9871	9629	5	Marcellus
24	11/23/2013	9571	9329	5	Marcellus
25	11/23/2013	9271	9029	5	Marcellus
26	11/24/2013	8970	8720	5	Marcellus

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Office of Oil & Gas

MAR 11

API 47-097-03847H Farm name HELTON, RUSSELL

Well number CENT3AHS

STIMULATION INFORMATION PER STAGE

Stage No.	Stimulations Date	Avg Pump Rate (BPM)	Avg Treatment Pressure (PSI)	Max Breakdown Perforations	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen / other (gals)
1	11/11/2013	80	8719	0	4981	261750	8897	13149
2	11/12/2013	86.4	8645	7738	5162	349150	9251	7055
3	11/12/2013	79.1	8497	7126	5255	351400	9646	7393
4	11/13/2013	78.6	8505	6250	5190	265950	6796	6428
5	11/13/2013	78.7	8486	6929	5372	350500	8753	6874
6	11/13/2013	79.9	8545	6877	5736	350300	7661	6824
7	11/14/2013	80	8510	6908	5297	243350	6324	6556
8	11/14/2013	82	8502	7315	5265	339200	9032	6851
9	11/15/2013	77.4	7772	5907	5315	350600	8533	6869
10	11/15/2013	90	8606	5937	5384	349700	8065	6786
11	11/16/2013	87	8723	7300	5300	352000	7919	6694
12	11/16/2013	76.9	7929	6685	5143	349750	8004	6707
13	11/17/2013	77.5	8160	7519	5291	350150	7789	6712
14	11/17/2013	79.4	7771	5208	5382	349700	7523	6799
15	11/18/2013	82	8011	6360	5248	351050	7494	6648
16	11/18/2013	84.1	7971	6415	5443	350600	7454	6797
17	11/19/2013	92	8656	5122	5946	351700	7808	6675
18	11/20/2013	88	8563	7157	6573	350500	7817	6698
19	11/20/2013	80.4	8063	7096	5600	352350	7827	6744
20	11/21/2013	82.6	7924	6485	5246	353450	8534	6592
21	11/21/2013	80.9	7881	6281	5757	249700	6119	6431
22	11/22/2013	87.7	8134	6345	5677	351350	8689	6659
23	11/22/2013	84.8	7867	6078	5283	349250	8021	6755
24	11/23/2013	97.8	8362	7018	5672	353350	6646	6805
25	11/23/2013	89.9	7542	6250	5673	372800	8135	6572
26	11/24/2013	83.9	7684	5425	5069	310200	6463	6467

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Office of Oil & Gas

MAR 11 2014

API 47- 097 - 3847 Farm name HELTON, RUSSELL Well number CENT3AHS

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>UPPER MARCELLUS</u>	<u>7468'</u>	<u>TVD</u>	<u>MD</u>
<u>MIDDLE MARCELLUS</u>	<u>7500'</u>		
<u>LOWER MARCELLUS</u>	<u>7531'</u>		

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 900 psi Bottom Hole 4675 psi DURATION OF TEST 259 hrs

OPEN FLOW Gas 8543 mcfpd Oil N/A bpd NGL N/A bpd Water 1559 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	<u>0</u>		<u>0</u>		
					See Attached
					Received Office of Oil & Gas
					MAR 11

Please insert additional pages as applicable.

Drilling Contractor Patterson UTI
Address 450 Gears Road Suit 500 City Houston State TX Zip 77067

Logging Company Diversified Mud Logging
Address 440 Route 519 City Eighty Four State PA Zip 15330

Cementing Company CalFrac
Address 2001 Summit View Rd City Smithfield State PA Zip 15478

Stimulating Company CalFrac
Address 2001 Summit View Rd City Smithfield State PA Zip 15478

Please insert additional pages as applicable.

Completed by CNX Gas WV Operations Company, LLC - Drilling and Completions Telephone 304-884-2000
Signature *Steve Spiller* Title Completions Manager-Gas WV Date 3/7/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

API 47-097-03847H Farm name HELTON, RUSSELL Well number CENT3AHS

LITHOLOGY / FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY TYPE OF FLUID (FRESHWATER, BRINE, GAS, H2S, ETC)
	DEPTH IN FT TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
FILL	0	80			Brown
SHALE	80	200			Gray
SANDY SHALE	200	260			Gray
SAND	260	300			Gray
SANDY SHALE	300	360			Gray
REDROCK	360	370			Red
SAND & SHALE	370	490			Dark Gray
REDROCK	490	498			Red
SAND & SHALE	498	640			Gray
SAND	640	671			Gray
SAND/SHALE	671	733			Gray
SAND/SHALE	733	765			Gray
SAND	765	795			Gray
SAND/SHALE	795	827			Dark Gray
SAND	827	859			Dark Gray
SAND	859	890			Gray
SAND & SHALE	890	1010			Gray
SAND	1010	1070			Gray
SAND	1070	1112			Gray
SAND	1112	1143			Dark Gray
SAND/SHALE	1143	1175			Dark Gray
SHALE	1175	1207			Gray
SHALE	1207	1238			Gray
SAND/SHALE	1238	1269			Dark Gray
SAND/SHALE	1269	1300			Dark Gray
SAND	1300	1331			Light Gray
SHALE	1331	1360			Gray
REDROCK	1360	1370			Red
SHALE	1370	1395			Gray / water between 1370-1395
SANDY SHALE	1395	1426			Gray / water between 1395-1426
SHALE	1426	1440			Gray / water between 1426-1440
REDROCK/SHALE	1440	1500			Red/Gray
SHALE	1500	1530			Gray / water between 1500-1530
SILT	1530	1550			White Gray / water between 1530-1550
LIMESTONE	1550	1580			White Gray / water between 1550-1580
SHALE	1580	1640			Gray
RED SHALE	1640	1690			Red

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Office of Oil & Gas
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API 47-097-03847H Farm name HELTON, RUSSELL Well number CENT3AHS

LITHOLOGY / FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY TYPE OF FLUID (FRESHWATER, BRINE, GAS, H2S, ETC)
	DEPTH IN FT TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
LIMESTONE	1690	1990			White
SILT	1990	2040			White Gray
SHALE	2040	2070			Gray
SAND	2070	2140			White
SHALE	2140	2240			Gray
SAND/SHALE	2240				Light Gray
FOURTH SAND	2365	2460			
SPEECHLEY	3060	3490			
BALLTOWN	3490	3725			
BRADFORD	3725	4040			
RILEY	4040	4350			
BENSON	4350	4555			
FIRST ELK	4555	4660			
SECOND ELK	4660	5065			
THIRD ELK	5065	5210			
FOURTH ELK	5210	5620			
SYCAMORE GRIT	6430	6610			
SILTSTONE	6820	6910			
BURKETT	7272	7303			
TULLY LIMESTONE	7303	7335			
HAMILTON SHALE	7335	7468			
UPPER MARCELLUS	7468	7500			
MIDDLE MARCELLUS	7500	7524			
PURCELL	7524	7531			
LOWER MARCELLUS	7531	7567			
ONONDAGA	7567	7578			
HUNTERSVILLE CHERT	7578				

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Office of Oil & Gas

MAR 11

97-03847



CNX



Borehole:	ST01	Well:	CENT-3AHS	Field:	WV Upshur County (NAD 27)	Structure:	Patterson 331
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Gravity & Magnetic Parameters	Model: HDGM 2013	Dip: 66.421°	Date: 5/20/2013	Surface Location	NAD27 West Virginia State Plane, Southern Zone, US Feet	Miscellaneous	CNX CENT-3AHS	TVD Ref: KB(1691.378 above MSL)
MagDec: -9.432°	FS: 82256.31mT	Gravity FS: 9.80665 m/s²	SW: 200m	Lat: N 39 3 24.30	Northing: 7699998.98	Grid Conv: 0.504°	Plan: MWD Surveys	
				Long: W 80 11 8.37	Eastng: 22314279.08	Scale Fact: 1		

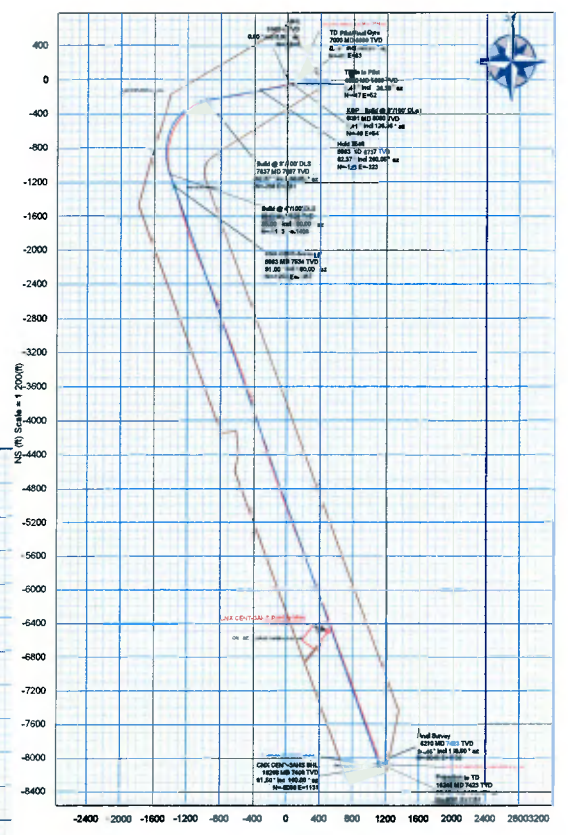
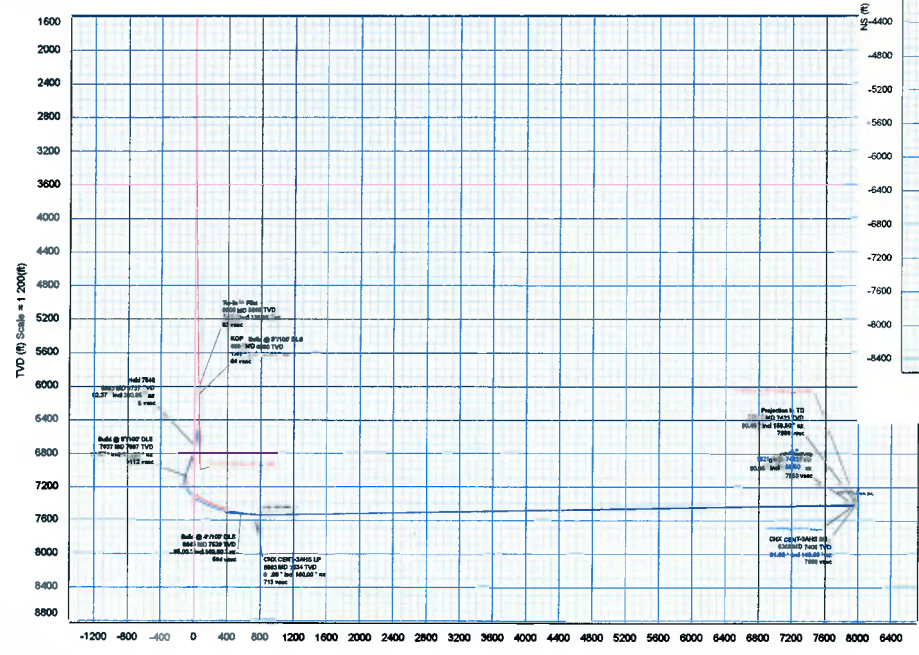
WELL	Enc.	Survey Year	Vertical/True	Mag. Dec.	Mag. Dec. (FS)	Mag. Dec. (FS)	Mag. Dec. (FS)	Mag. Dec. (FS)	Mag. Dec. (FS)	Mag. Dec. (FS)	Comments
1	1	2008	30	30	9	30	Act. Dec.	1.26	1.26		
1	2	2008	30	30	25	6000	Act. Dec.	1.26	1.26		
1	3	2008	30	30	6000	6250	Act. Dec.	200.09	41.82		
1	4	2008	30	30	14340	14340	Act. Dec.	254.3	43.39		

Well	Well ID	Well Name	Well Type	Well Status	Well Depth (ft)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)
2008	2231427	CENT-3AHS	Oil	Active	14340	4279.08	4279.08	4279.08	4279.08	4279.08	4279.08	4279.08

Well	Well ID	Well Name	Well Type	Well Status	Well Depth (ft)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)	Well Depth (m)
2008	2231427	CENT-3AHS	Oil	Active	14340	4279.08	4279.08	4279.08	4279.08	4279.08	4279.08	4279.08

Grid
True
Mag
Grid North
Tot Corr (M→G -9.836°)
Mag Dec (-9.432°)
Grid Conv (0.504°)

- CNX CENT-3AHS ST01 Rev 4.0 12-10-11
- CNX CENT-3AHS Core Data 7000.MD
- CNX CENT-3AHS BHL
- CNX CENT-3AHS Handline for unit
- CNX CENT-3AHS LP
- CNX CENT-3AHS Point to Miss
- CNX CENT-3AHS Up Line



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MAY 17 2013

Vertical Section (ft) Azim = 160° Scale = 1:2000(ft) Origin = ON-S, DE-W

97.03847



CNX CENT-3AHS ST01 Surveys 6000ft to 16245ft MD Survey Geodetic Report (Def Survey)

Report Date: October 01, 2013 - 10:45 AM
Client: CNX
Field: WV Upshur County (NAD 27)
Structure / Slot: CNX CENT-3AHS / CNX CENT-3AHS
Well: CNX CENT-3AHS
Borehole: ST01
UWI / API#: Unknown / Unknown
Survey Name: CNX CENT-3AHS ST01 Surveys 6000ft to 16245ft MD
Survey Date: September 20, 2013
Tort / AHD / DDI / ERD Ratio: 267.352 * 19636.880 ft / 6.745 / 1.280
Coordinate Reference System: NAD27 West Virginia State Plane, Southern Zone, US Feet
Location Lat / Long: N 39° 3' 24.25804" W 80° 11' 6.36725"
Location Grid N/E/Y: N 749980.000 NUS, E 2231427.000 NUS
CRS Grid Convergence Angle: 0.5038 *
Grid Scale Factor: 1.00004156
Version / Patch: 2.7.998.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 160.000 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB
TVD Reference Elevation: 1561.270 ft above MSL
Seebed / Ground Elevation: 1536.270 ft above MSL
Magnetic Declination: -9.432 *
Total Gravity Field Strength: 999.2555mgm (8.90665 Basesd)
Gravity Model: GARM
Total Magnetic Field Strength: 52255.910 nT
Magnetic Dip Angle: 66.421 *
Declination Date: September 20, 2013
Magnetic Declination Model: HDGM 2013
North Reference: Grid North
Grid Convergence Used: 0.5038 *
Total Corr Mag North-Grid North: -9.9357 *
Local Coord Referenced To: Well Head

Table with columns: Comments, MD (ft), Incl (°), Azim (Grid) (°), TVD (ft), TVDSS (ft), VSEC (ft), NS (ft), EW (ft), DLS (ft/100ft), BR (ft/100ft), TR (ft/100ft), Northing (ft), Easting (ft), Latitude (N/S * °), Longitude (E/W * °). The table contains multiple rows of survey data points.

97-03847

Comments	MD (ft)	Incl (°)	Azm Grid (°)	TVD (ft)	TVSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	BR (ft/100ft)	TR (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S/°)	Longitude (E/W/°)
	7719.00	65.12	246.58	7109.28	5548.01	-104.53	-265.30	-1034.54	9.07	-0.90	-8.94	749714.69	2230392.42	N 39 3 21.77 W	80 11 19.51
	7767.00	64.41	243.29	7129.75	5568.48	-100.70	-283.69	-1073.86	6.37	-1.48	-6.84	749696.30	2230353.10	N 39 3 21.59 W	80 11 20.01
	7814.00	63.18	239.97	7149.22	5588.95	-96.97	-302.17	-1103.24	3.66	-3.02	-7.06	749678.00	2230314.00	N 39 3 21.35 W	80 11 20.48
	7861.00	62.46	235.57	7171.98	5610.71	-85.72	-326.00	-1148.32	8.47	-1.53	-5.36	749659.59	2230280.64	N 39 3 21.16 W	80 11 20.93
	7908.00	62.70	233.85	7193.63	5632.36	-74.72	-350.10	-1180.37	3.29	0.51	-3.66	749629.89	2230246.59	N 39 3 20.94 W	80 11 21.37
	7956.00	62.41	230.62	7215.76	5654.49	-61.73	-376.18	-1214.04	6.00	-0.60	-6.73	749603.80	2230212.91	N 39 3 20.69 W	80 11 21.80
	8003.00	62.09	226.27	7237.65	5676.38	-48.46	-403.76	-1245.15	8.22	-0.68	-8.26	749576.22	2230181.80	N 39 3 20.42 W	80 11 22.20
	8051.00	62.15	221.50	7260.10	5698.83	-37.80	-434.32	-1274.57	8.71	0.15	-9.65	749545.66	2230152.38	N 39 3 20.12 W	80 11 22.57
	8096.00	62.17	217.20	7281.12	5719.85	-27.53	-465.07	-1299.80	8.53	0.02	-9.64	749514.91	2230127.15	N 39 3 19.81 W	80 11 22.90
	8145.00	62.03	213.11	7304.06	5742.79	-17.20	-500.47	-1324.73	7.38	-0.29	-8.35	749479.51	2230102.22	N 39 3 19.47 W	80 11 23.22
	8192.00	63.23	210.24	7325.67	5764.40	-43.09	-535.99	-1346.64	5.99	2.55	-6.11	749443.99	2230080.31	N 39 3 19.12 W	80 11 23.50
	8238.00	64.77	206.09	7345.84	5784.57	-57.43	-572.43	-1366.13	8.77	3.35	-9.02	749407.55	2230060.81	N 39 3 18.76 W	80 11 23.75
	8286.00	65.61	201.02	7365.99	5804.72	-72.23	-612.35	-1383.53	9.75	1.75	-10.56	749367.62	2230043.41	N 39 3 18.37 W	80 11 23.97
	8332.00	66.87	198.03	7384.53	5823.26	-87.50	-652.03	-1397.60	6.55	2.74	-6.50	749327.95	2230029.35	N 39 3 17.97 W	80 11 24.16
	8380.00	67.58	195.62	7403.11	5841.84	-102.71	-694.39	-1410.40	4.86	1.48	-5.02	749285.59	2230016.54	N 39 3 17.56 W	80 11 24.32
	8425.00	70.53	192.80	7419.20	5857.93	-117.52	-735.12	-1420.71	8.79	6.56	-6.27	749244.85	2230006.24	N 39 3 17.16 W	80 11 24.46
	8474.00	73.92	189.42	7434.16	5872.89	-132.24	-780.89	-1429.68	9.54	6.92	-6.90	749199.08	2229997.26	N 39 3 16.70 W	80 11 24.58
	8521.00	75.40	185.10	7446.60	5885.33	-146.50	-825.84	-1435.40	9.41	3.15	-9.19	749154.12	2229991.54	N 39 3 16.26 W	80 11 24.65
	8568.00	75.18	181.41	7458.53	5897.26	-160.72	-871.22	-1437.98	7.61	-0.47	-7.85	749108.75	2229988.96	N 39 3 15.81 W	80 11 24.69
	8615.00	76.93	177.95	7469.86	5908.59	-174.97	-916.82	-1437.72	8.06	3.72	-7.36	749063.14	2229988.22	N 39 3 15.36 W	80 11 24.69
	8663.00	78.46	174.49	7480.10	5918.83	-189.22	-963.61	-1434.63	7.73	3.19	-7.21	749016.35	2229992.31	N 39 3 14.90 W	80 11 24.66
	8711.00	78.98	170.24	7489.49	5928.22	-203.47	-1010.25	-1428.38	8.75	1.08	-8.85	748968.71	2229998.57	N 39 3 14.44 W	80 11 24.59
	8757.00	80.20	167.35	7497.80	5936.53	-217.72	-1056.63	-1419.58	6.72	2.65	-6.28	748925.33	2229990.36	N 39 3 14.00 W	80 11 24.48
	8804.00	80.30	164.46	7505.76	5944.49	-231.97	-1099.55	-1408.30	6.06	0.21	-6.15	748880.41	2229981.64	N 39 3 13.55 W	80 11 24.34
	8850.00	80.78	161.75	7513.33	5952.06	-246.22	-1142.96	-1395.12	5.90	1.04	-5.89	748836.99	2229973.81	N 39 3 13.12 W	80 11 24.18
	8900.00	83.57	161.57	7520.13	5958.86	-260.47	-1189.97	-1379.53	5.59	5.58	-0.36	748799.98	2229970.47	N 39 3 12.66 W	80 11 23.99
	8945.00	84.43	161.99	7524.84	5963.57	-274.72	-1232.48	-1365.54	2.12	1.91	0.93	748747.47	2229961.41	N 39 3 12.23 W	80 11 23.81
	8995.00	87.89	160.87	7528.18	5966.91	-288.97	-1279.77	-1349.65	7.27	6.92	-2.24	748700.18	2229957.29	N 39 3 11.77 W	80 11 23.62
	9042.00	90.25	160.79	7528.95	5967.68	-303.22	-1324.15	-1334.22	5.02	5.02	-0.17	748655.80	2229952.72	N 39 3 11.33 W	80 11 23.43
	9149.00	90.37	162.62	7528.37	5967.10	-317.47	-1425.74	-1300.64	1.71	0.11	1.71	748585.21	2229126.31	N 39 3 10.32 W	80 11 23.01
	9245.00	90.74	164.26	7527.44	5966.17	-331.72	-1517.75	-1273.28	1.75	0.39	1.71	748462.19	2229153.67	N 39 3 9.41 W	80 11 22.68
	9337.00	90.54	161.20	7526.33	5965.06	-346.00	-1609.76	-1245.97	3.33	-0.11	-3.33	748374.35	2229183.98	N 39 3 8.54 W	80 11 22.34
	9431.00	90.90	161.75	7525.07	5963.80	-360.25	-1701.77	-1216.11	0.65	0.28	0.59	748285.23	2229210.84	N 39 3 7.65 W	80 11 21.97
	9529.00	90.50	161.44	7523.87	5962.60	-374.50	-1787.68	-1185.17	0.52	-0.41	-0.32	748197.25	2229241.79	N 39 3 6.73 W	80 11 21.59
	9621.00	90.57	159.99	7523.01	5961.74	-388.75	-1874.51	-1154.79	1.58	0.08	-1.58	748105.41	2229272.17	N 39 3 5.87 W	80 11 21.21
	9714.00	90.37	157.81	7522.25	5960.98	-403.00	-1961.27	-1121.31	2.35	-0.22	-2.34	748018.65	2229306.65	N 39 3 5.01 W	80 11 20.80
	9810.00	90.90	157.48	7521.18	5959.91	-417.25	-2050.05	-1084.80	0.65	0.55	-0.34	747928.87	2229342.16	N 39 3 4.13 W	80 11 20.35
	9905.00	90.78	155.94	7519.73	5958.22	-431.50	-2137.30	-1047.24	1.94	-1.62	-1.62	747840.72	2229378.72	N 39 3 3.25 W	80 11 19.88
	10000.00	91.16	156.60	7518.18	5956.91	-445.75	-2224.25	-1009.02	0.80	0.40	0.69	747755.66	2229417.94	N 39 3 2.40 W	80 11 19.40
	10094.00	91.61	156.63	7515.91	5954.64	-460.00	-2310.51	-971.72	0.48	0.03	0.48	747669.40	2229455.24	N 39 3 1.55 W	80 11 18.94
	10189.00	90.81	156.78	7513.90	5952.63	-474.25	-2397.74	-934.16	0.86	-0.84	0.16	747582.16	2229492.80	N 39 3 0.68 W	80 11 18.47
	10283.00	91.16	157.91	7512.29	5951.02	-488.50	-2484.47	-897.96	1.26	0.37	1.20	747495.43	2229530.01	N 39 3 0.29 W	80 11 18.03
	10378.00	91.70	159.29	7509.92	5948.65	-502.75	-2572.89	-863.31	1.56	0.57	1.45	747407.00	2229567.66	N 39 3 0.28 W	80 11 17.60
	10472.00	91.17	160.89	7507.56	5946.29	-517.00	-2661.24	-831.31	1.79	-0.56	1.70	747318.65	2229605.37	N 39 3 0.28 W	80 11 17.20
	10567.00	91.48	161.13	7505.37	5944.10	-531.25	-2751.05	-800.40	0.41	0.33	0.25	747228.84	2229643.67	N 39 3 0.28 W	80 11 16.82
	10662.00	91.15	161.21	7503.19	5941.92	-545.50	-2840.94	-769.75	0.36	-0.35	0.08	747138.95	2229682.24	N 39 3 0.28 W	80 11 16.44
	10755.00	91.30	159.68	7501.20	5939.93	-559.75	-2930.83	-738.63	1.65	0.16	-1.65	747051.33	2229720.81	N 39 3 0.28 W	80 11 16.06
	10851.00	91.35	157.56	7498.98	5937.71	-574.00	-3019.72	-703.64	2.21	0.05	-2.21	746963.96	2229759.38	N 39 3 0.28 W	80 11 15.62
	10944.00	91.17	159.49	7496.83	5935.56	-588.25	-3109.61	-669.60	2.08	-0.19	2.08	746876.57	2229797.95	N 39 3 0.28 W	80 11 15.20
	11041.00	91.07	158.51	7495.04	5933.77	-602.50	-3199.50	-634.85	1.92	-1.01	-1.01	746784.90	2229836.52	N 39 3 0.28 W	80 11 14.77
	11136.00	91.03	157.70	7493.30	5932.03	-616.75	-3283.11	-599.43	0.85	-0.04	-0.85	746696.76	2229875.09	N 39 3 0.28 W	80 11 14.33
	11229.00	90.77	159.43	7491.84	5930.57	-631.00	-3369.66	-565.45	1.88	-0.28	1.88	746610.20	2229913.66	N 39 3 0.28 W	80 11 13.91
	11324.00	90.90	160.39	7490.45	5929.18	-645.25	-3458.87	-532.82	1.02	0.14	1.01	746520.99	2229952.23	N 39 3 0.28 W	80 11 13.51
	11419.00	90.77	162.20	7489.07	5927.80	-659.50	-3548.84	-502.36	1.91	-0.14	1.91	746431.02	2229990.80	N 39 3 0.28 W	80 11 13.13
	11513.00	90.83	161.98	7487.75	5926.48	-673.75	-3638.28	-473.45	0.24	0.08	-0.23	746341.58	2230029.37	N 39 3 0.28 W	80 11 12.77
	11608.00	90.86	161.64	7486.35	5925.08	-688.00	-3728.52	-443.80	0.36	0.03	-0.36	746251.33	2230068.18	N 39 3 0.28 W	80 11 12.41
	11702.00	90.79	161.05	7485.00	5923.73	-702.25	-3818.77	-413.74	0.63	-0.07	-0.63	746162.28	2230107.25	N 39 3 0.28 W	80 11 12.04
	11796.00	90.93	161.62	7483.59	5922.32	-716.50	-3909.62	-383.66	0.62	0.15	0.61	746073.23	2230146.32	N 39 3 0.28 W	80 11 11.67
	11890.00	91.02	162.00	7481.99	5920.72	-730.75	-3995.91	-354.32	0.42	0.10	0.40	745983.94	2230185.39	N 39 3 0.28 W	80 11 11.30
	11985.00	90.80	161.99	7480.48	5919.21	-745.00	-4086.24	-324.96	0.23	-0.23	-0.01	745893.60	2230224.46	N 39 3 0.28 W	80 11 10.94
	12080.00	90.99	162.50	7479.00	5917.73	-759.25	-4176.71	-295.99	0.57	0.20	0.54	745803.13	2230263.53	N 39 3 0.28 W	80 11 10.58
	12174.00	91.15	162.26	7477.24	5915.97	-773.50	-4266.26	-267.54	0.31	0.17	-0.26	745713.55	2230302.60	N 39 3 0.28 W	80 11 10.23
	12269.00	90.93	161.54	7475.52	5914.25	-787.75	-4356.56	-238.03	0.79	-0.23	-0.76	745623.26	2230341.67	N 39 3 0.28 W	80 11 9.87
	12363.00	91.08	161.15	7473.87	5912.60	-802.00	-4446.51	-207.97	0.44	0.16	-0.41	745534.21	2230380.74	N 39 3 0.28 W	80 11 9.50

97.03847

Comments MD (ft) Incl (°) Azim Grid (°) TVD (ft) TVDSS (ft) VSEC (ft) NS (ft) EW (ft) DLS (°/100ft) BR (°/100ft) TR (°/100ft) Northing (ftUS) Easting (ftUS) Latitude (NS ° ' ") Longitude (EW ° ' ")

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	25.000	Act Sins	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / CNX CENT-3AHS Gyros Off to 7000ft MD
	1	25.000	6000.000	Act Sins	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / CNX CENT-3AHS Gyros Off to 7000ft MD
	1	6000.000	16210.000	Act Sins	30.000	30.000	SLB_MWD-STO	ST01 / CNX CENT-3AHS ST01 Surveys 6000ft to 16245ft MD
	1	16210.000	16245.000	Act Sins	30.000	30.000	SLB_BLIND+TREND	ST01 / CNX CENT-3AHS ST01 Surveys 6000ft to 16245ft MD

Received
Office of Oil & Gas

MAR 11

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/11/2013
Job End Date:	11/24/2013
State:	West Virginia
County:	Upshur
API Number:	47-097-03847-00-00
Operator Name:	CONSOL Energy Inc.
Well Name and Number:	CENT3AHS
Longitude:	-80.18510400
Latitude:	39.05674700
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,535
Total Base Water Volume (gal):	8,565,316
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Customer	Base Fluid	Water	7732-18-5	100.00000	89.03880	
Sand (Proppant)	CWS	Propping Agent	Silicon Dioxide	14808-60-7	100.00000	10.85620	
DWP-111	CWS	Gel Slurry	No Hazardous Materials	NA	100.00000	0.04370	
DWP-NE1	CWS	Non-Emulsifier	Isopropyl alcohol	67-63-0	40.00000	0.00990	
			Dimethylcocoamine, bis (chlorethyl)ether, diquatary ammonium salt	68607-28-03	40.00000	0.00990	
			Methyl Alcohol	67-56-1	15.00000	0.00370	
			Dimethyldiallylammonium Chloride	7398-69-8	5.00000	0.00120	
DAP-903	CWS	Scale Inhibitor	No Hazardous Materials	NA	100.00000	0.01560	
BioClear 2000	CWS	Biocide	2,2-Dibromo-3-Nitropropionamide	10222-01-2	40.00000	0.01040	
DWP-901	CWS	Breaker	Ammonium Persulfate	7727-54-0	95.00000	0.00540	

Office of Oil & Gas
Beverly

97.03847

DWP-614	CWS	Viscosifier				
			Polyethylene glycol nonylphenyl ether	9016-45-9	5.00000	0.00520

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

- * Total Water Volume sources may include fresh water, produced water, and/or recycled water
- ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

MAN 11

Received
Operations & Gas

97-03847



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

PERMIT MODIFICATION APPROVAL

August 23, 2013

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

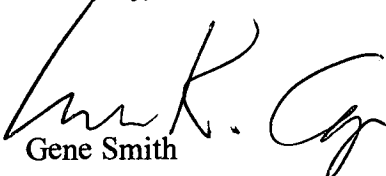
Re: Permit Modification Approval for API Number 9703847 , Well #: CENT3AHS
extended lateral

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,


for Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas

97-03847
MOD



Kelly Eddy
Permitting Analyst
P.O. Box 1248
Jane Lew, WV 26378
(304) 884-2131



August 14, 2013

West Virginia Department of Environmental Protection
Office of Oil & Gas
Attn: Laura Cooper
601 57th Street, SE
Charleston, WV 25304-2345

RE: CENT3AHS - API# 47-097-03847 (Lateral Extension)

Dear Laura,

Enclosed, please find a modification for the CENT3AHS for extending the laterals. I have attached an updated casing plan, mylar plat, and lease breakdown.

Should you need any further information, please contact me at (304) 884-2131 or by email at kellyeddy@consolenergy.com. Thank you!

Sincerely,

A handwritten signature in cursive script that reads 'Kelly Eddy'.

Kelly Eddy

Received

AUG 16 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

97-03847
MOP

WW - 6B
(1/12)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION

1) Well Operator: CNX Gas Company LLC 494458046 Upshur Warren Century
Operator ID County District Quadrangle

2) Operator's Well Number: CENT3AHS Well Pad Name: CENT3HS

3 Elevation, current ground: 1534' Elevation, proposed post-construction: 1536'

4) Well Type: (a) Gas Oil
Other _____
(b) If Gas: Shallow _____ Deep
Horizontal

5) Existing Pad? Yes or No: No

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):
Formation - Marcellus, Depth - 7815', Thickness - 90', Pressure - 3000#

7) Proposed Total Vertical Depth: 8205'

8) Formation at Total Vertical Depth: Huntersville Chert

9) Proposed Total Measured Depth: 16875'

10) Approximate Fresh Water Strata Depths: 85', 852', 945'

11) Method to Determine Fresh Water Depth: Reference offset wells

12) Approximate Saltwater Depths: None Reported

13) Approximate Coal Seam Depths: 945'

14) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

15) Does land contain coal seams tributary or adjacent to, active mine? No

16) Describe proposed well work: Drill and stimulate new horizontal Marcellus well. Well to be drilled to a TMD of 16875'. Well to be drilled to a TVD of 8205' for logging purposes, formation at TVD - Huntersville Chert. Well will be plugged back to an approximate depth of 7200' (approximate due to exact Kick of 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.

17) Describe fracturing/stimulating methods in detail:
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.

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): 12.46 Acres

19) Area to be disturbed for well pad only, less access road (acres): 9.74 Acres

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AUG 16 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

20)

CASING AND TUBING PROGRAM

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	20"	N	L.S.	81.3#	100' ^{BN}	100' ^{BN}	Grout to Surface
Fresh Water	13 3/8"	N	J-55	54.5#	1000'	1000'	CTS w/ Approved Class A Type Cement
Coal							
Intermediate	9 5/8"	N	J-55	36#	2500'	2500'	CTS w/ Approved Class A Type Cement
Production	5 1/2"	N	P-110	20#	16875'	16875'	2400 cu. ft. W/ 50/50 POZ Lead & Class A Tail
Tubing	2 3/8"	N	J-55	4.7#	8405'	8405'	
Liners							

Bill Nettell 8/14/2013

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
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	12640	Class A Type	1.26
Tubing	2 3/8"	8 3/4" & 8 1/2"	0.190	7700	-----	-----
Liners						

PACKERS

Kind:	None			
Sizes:	None			
Depths Set:	None			

Received

AUG 16 2013

Attachment - Form WW-6A-1 for CENT3AHS:

<u>Lease</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
✓ 066851	Virginia M. White & Joe Grill Mack F. Grill Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company	Hope Natural Gas Company Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company CNX Gas Company LLC	1/8 Ratification Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	33 / 446 35 / 193 185 / 646 20 / 342 20 / 531 20 / 538 51 / 285 20 / 388 20 / 435
✓ 066850	Virginia M. White and Joe Grill Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings	Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings CNX Gas Company LLC	1/8 Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	33 / 443 185 / 646 20 / 342 20 / 531 20 / 538 51 / 285 20 / 435
✓ 067843	Pecks Run Coal Company Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company Consol Energy Holdings	Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company CNX Gas Company LLC	1/8 Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	34 / 515 185 / 646 20 / 343 20 / 531 20 / 538 51 / 285 20 / 388 20 / 435
✓ 066109	Joe Bozic and Mary Bozic Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Energy Holdings	Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company CNX Gas Company LLC	1/8 Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	31 / 429 185 / 646 20 / 342 20 / 531 20 / 538 51 / 285 20 / 388 20 / 435
✓ 067930	Pecks Run Coal Company Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company Consol Energy Holdings	Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company CNX Gas Company LLC	1/8 Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	35 / 60 185 / 646 20 / 343 20 / 531 20 / 538 51 / 285 20 / 388 20 / 435
✓ 078011	R.S. Ward and W.F. May W.C. Bond Delaware Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company Consol Energy Holdings	W.C. Bond Delaware Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company CNX Gas Company LLC	1/8 Assignment Assignment Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	31 / 79 3 / 423 9 / 563 20 / 342 20 / 531 20 / 538 51 / 285 20 / 388 20 / 435
✓ 248160000	Walter S. Sinclair, Et ux	CNX Gas Company LLC	3/20	98/93
✓ 065878	B.B. Radabaugh, Et ux Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company	Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company CNX Gas Company LLC	1/8 Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	31/268 185 / 646 20 / 343 20 / 531 20 / 538 51 / 285 20 / 388 20 / 435
✓ 065909	M.B. Radabaugh, Et ux Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company	Hope Natural Gas Company Consolidated Gas Supply Corp Consolidated Gas Transmission Corp CNG Transmission Corp Dominion Transmission, Inc. Consol Energy Holdings Consol Gas Company CNX Gas Company LLC	1/8 Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change Merger/Name Change	31/307 185 / 646 20 / 343 20 / 531 20 / 538 51 / 285 20 / 388 20 / 435

Received
AUG 16 2013
Office of Oil and Gas
WV Dept. of Environmental Protection



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

July 11, 2013

WELL WORK PERMIT

Horizontal 6A Well

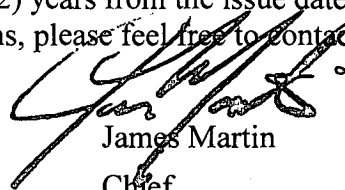
This permit, API Well Number: 47-9703847, issued to CNX GAS COMPANY LLC , is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as 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.



James Martin
Chief

Operator's Well No: CENT3AHS
Farm Name: HELTON, RUSSELL
API Well Number: 47-9703847
Permit Type: Horizontal 6A Well
Date Issued: 07/11/2013

Promoting a healthy environment.

PERMIT CONDITIONS

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

CONDITIONS

1. 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.
2. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the fill material shall be within plus or minus 2% (unless soil test results show a greater range of moisture content is appropriate and 95% compaction can still be achieved) of the optimum moisture content as determined by the standard proctor density test, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort. Each lift must meet 95 % compaction of the optimum density based on results from the standard proctor density test of the actual soils used in specific engineered fill sites. 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.
3. 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.
4. 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.
5. 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.

Map from a Flex Viewer application

Powered by ArcGIS



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Drilling near old mine (blue)

LKC



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.org

June 25, 2013

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-097-03847

COMPANY: CNX Gas Company, LLC

FARM: Russell Helton Cent#3H

COUNTY: Upshur DISTRICT: Warren QUAD: Century

The application for the above company is APPROVED FOR HUNTERSVILLE CHERT ONLY. **If operator wishes to drill deeper than the HUNTERSVILLE CHERT, additional approval must be obtained from the OGCC. *Marcellus completion***

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; yes
2. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; none
3. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines
Executive Assistant

To avoid enforcement action and per 39CSR1.4.6 and 4.10 filing of wells logs and directional surveys are due within 90/60 days of completion of a deep well.

CERTIFICATE OF CONSENT AND EASEMENT

We, the undersigned, for valuable considerable, the receipt and sufficiency of which is hereby acknowledged, being all the owners of the surface of that certain lot, tract or parcel of land located in WARREN District, UPSHUR County, State of West Virginia, shown on the attached plat or survey, or hereby consent and grant an easement, pursuant to West Virginia Code, Section 22C-9-7(b)(4) and Operating Rule 4.4 of the Rules and Regulations of the West Virginia Oil and Gas Conservation Commission, to RUSSELL W. HELTON, it successors or assigns, for the drilling and operation of a deep well for the production of oil or gas at the location shown on the attached plat or survey.

Executed this 20TH day of JUNE, 2013.

Russell W. Helton

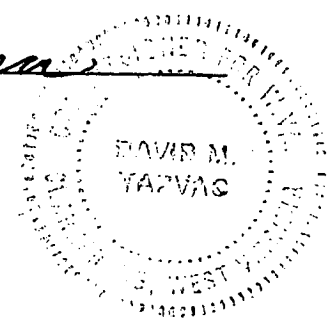
STATE OF WEST VIRGINIA

COUNTY OF UPSHUR To-Wit

I, DAVID M. YAZYAC, COMMISSIONER, a ~~Notary Public~~ in and for the aforesaid County and State, do hereby certify that RUSSELL W. HELTON, whose name is signed to the writing above, bearing date on the 20TH day of JUNE, 2013, has this day acknowledged the same before me, in my said County and State.

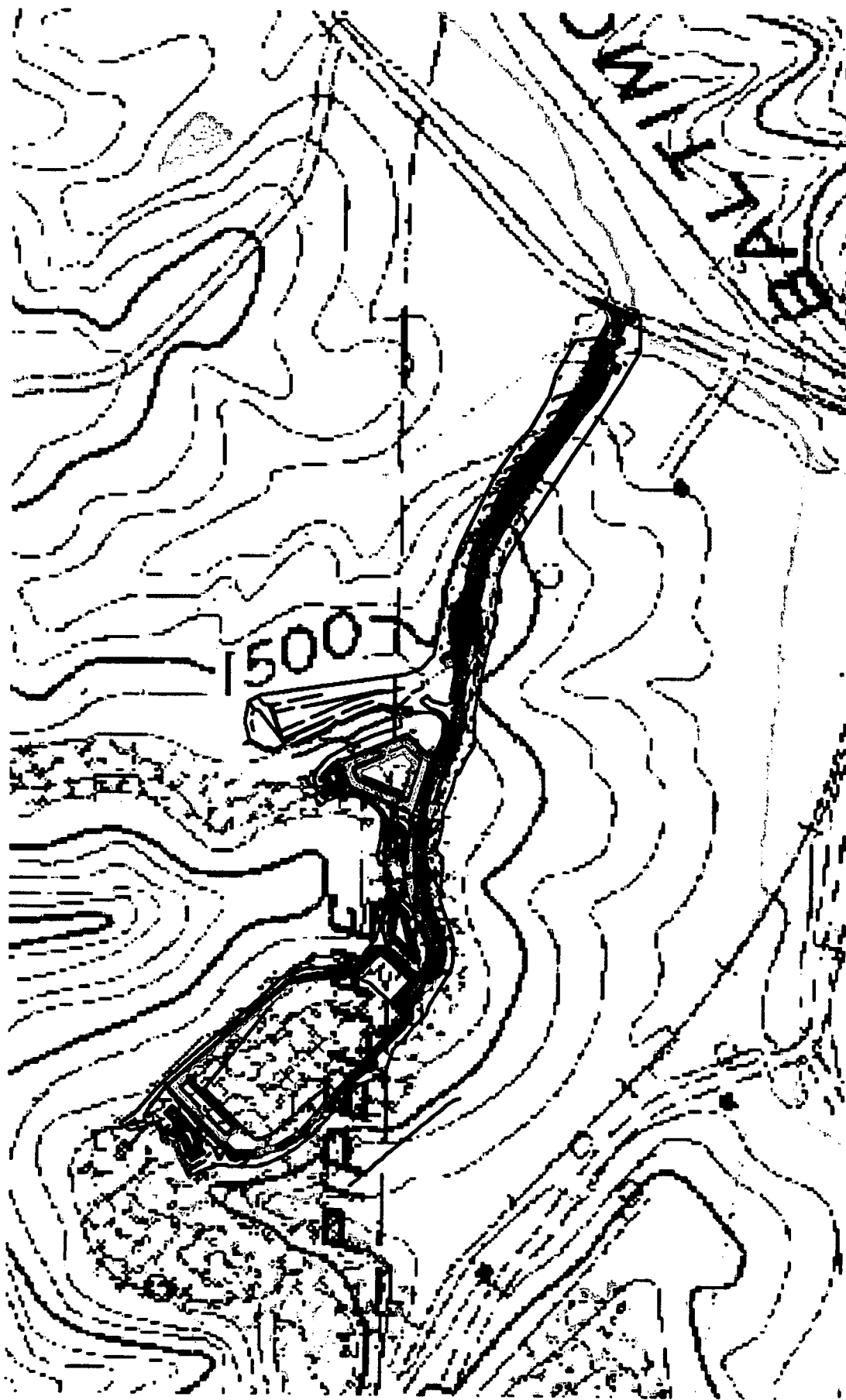
Given under my hand this 20TH day of JUNE, 2013.

David M. Yazvac



My Commission expires on: SEPT. 22, 2016

This instrument prepared by:
WV Oil and Gas Conservation Commission
601 57th Street
Charleston, WV 25304



Debbie Thacker Wilfong
UPSHUR County 02:59:06 PM
Instrument No 2013010323
Date Recorded 06/24/2013
Document Type MISC

21) 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 fourth joint until inside Surface casing. Production - Rigid bow spring centralizer on first joint then every 2 joints (free floating) through the lateral and the curve.
 (Note: cementing the 5 1/2" casing completely in open hole lateral and curve.)

22) 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.

23) Proposed borehole conditioning procedures. Conductor - The hole is augered or drilled w/ air and casing is 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 is ran in air. Once casing is on bottom the casing shoe will be cleared 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 fresh water and gel prior to cementing. (Note: Drilling soap may be utilized if the hole gets wet/damp during the drilling of all air holes with the exception of the conductor). Production - The hole is drilled with synthetic oil base mud and once at TD the hole 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.

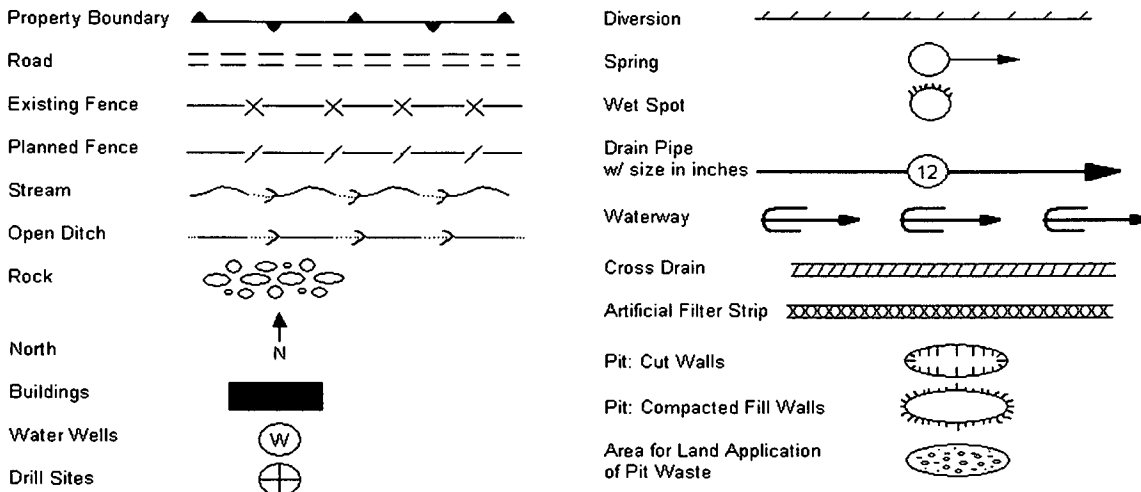
RECEIVED
 Office of Oil and Gas
 FEB 04 2013
 Energy Department
 Energy Regulation

Cement Additives

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

RECEIVED
Office of Oil and Gas
FEB 04 2013

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1500 W. 10th St., Suite 100
Billings, MT 59102-2698
Phone: (406) 527-2200
Fax: (406) 527-2201
www.blm.gov



Proposed Revegetation Treatment: Acres Disturbed 12.46 +/- Prevegetation pH 6.5

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

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Hay or Straw at 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
Orchardgrass	25	Orchardgrass	25
Birdsfoot Trefoil	15	Birdsfoot Trefoil	15
Ladino Clover	10	Ladino Clover	10

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bill Hatfield

Comments: _____

Title: oil & gas inspector Date: 1/30/13

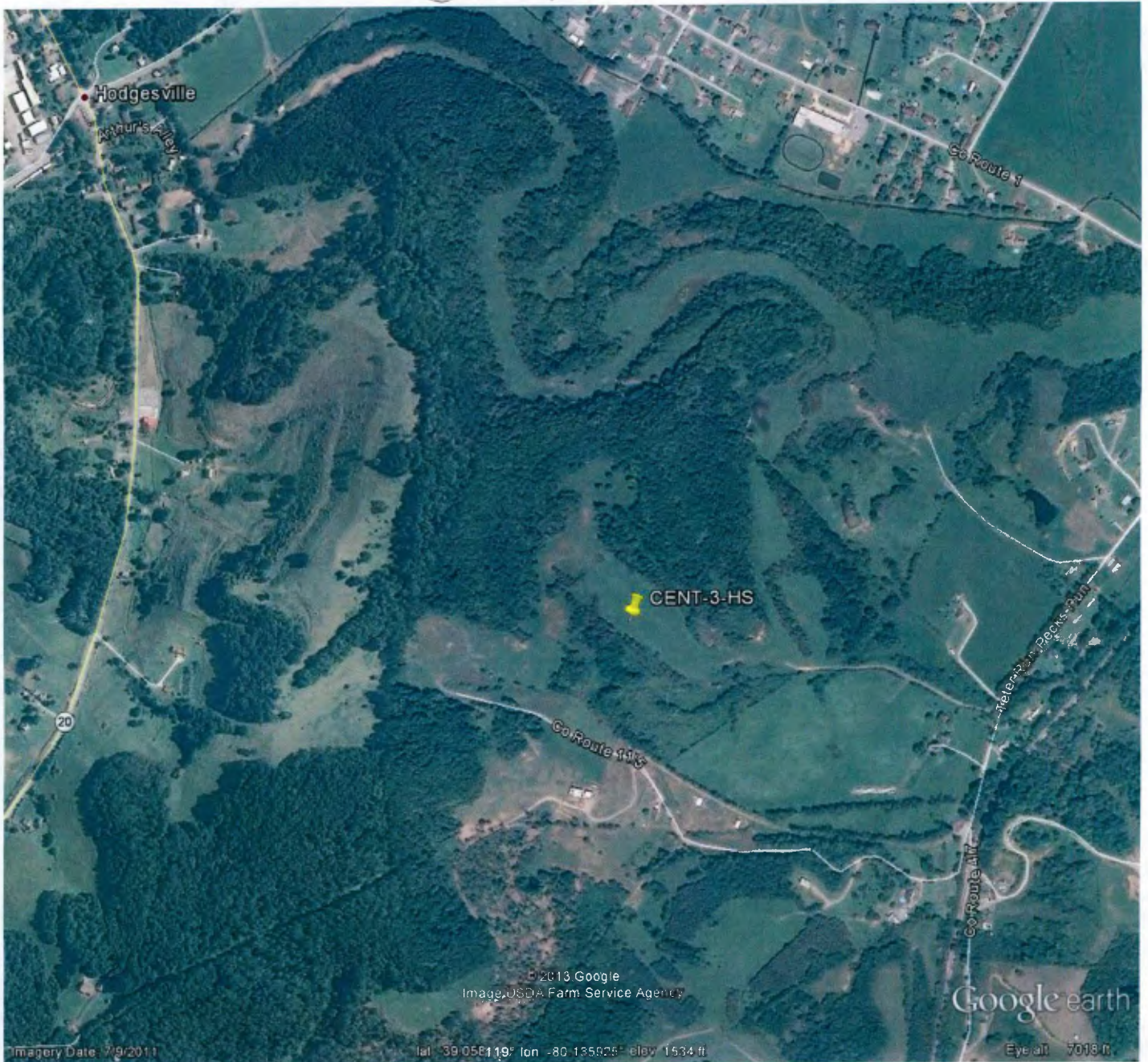
Field Reviewed? Yes No

RECEIVED
FEB 04 2013



Safety Plan for Well # CENT3AHS CNX Gas Company LLC

W. Baker June 19, 2013



Approval Sheet

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

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

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

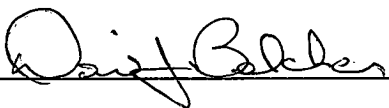
This plan has met the requirements of the Policy Statement Deep Well Drilling Procedures and Site Safety Plan Requirements as set forth by:

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

And

West Virginia Oil and Gas Conservation Commission.

Approved this day 19th of month June, 2013 by



Date: 6/19/13

Date: _____

Plan Modification*

Revision No.	Description of Revision	Consol Preparer	Consol Reviewer/Approver	Agency Approval	Date

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

Safety Plan for Well #CENT3AHS

CNX Gas Company LLC

1.0 Site Requirements

Appendix A provides information which shows the location of the access road, pit, flare line, nearby dwellings and prevailing wind direction. Note: The pit will be constructed to be less than 5000 bbls.

2.0 Site Safety Plan

2.1. Pre-spud Safety Meeting

Prior to beginning drilling operations, a pre-spud safety meeting shall be held which:

- Includes personnel employed and involved in the drilling operations, and
- Includes the District Oil and Gas Inspector (or other designated Office of Oil and Gas representative).

Please list the above personnel as a record of attendance for Pre-Spud Meeting

Name	Organization	Job Title
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____
11. _____	_____	_____

12. _____
13. _____
14. _____
15. _____
16. _____
18. _____
19. _____
20. _____

2.2 Personnel and Visitor Log

The driller will maintain a current headcount of all persons present at the site at any given time. Therefore, all personnel and visitors must notify the driller upon entering the site and notify upon departure. This tabulation will be maintained in the doghouse.

2.3 Evacuation Plan

The Drilling Supervisor will establish one muster points at which all persons on site will assemble for personnel safety and verification of headcount.

Included in Appendix A. are site specific maps and drawings that may assist in the emergency response and evacuation process.

The Drilling Supervisor and/or the Toolpusher will secure the Personnel and Visitor log before evacuating the site in order to perform a headcount at the muster point.

2.4 Safety Meetings

Safety meetings will be conducted as follows:

- Pre-Spud,
- Pre-Tour,
- Post Accident/Near Miss, and
- As-Needed.

A record of each meeting will be made and maintained on site for the duration of the drilling period. Typically, the drilling company will conduct these safety meetings with Consol personnel participating as needed. These records may be maintained separate from this plan.

2.5 Material Safety Data Sheets (MSDS)

MSDS for all materials and chemicals will be readily available and maintained in the operations trailer on the well site. Should a material for which there is not a MSDS on file be brought onto the site a copy of the MSDS that accompanies the shipment will be filed with the rest on the MSDS on site.

2.6 Emergency Response Personnel

Local first responders will be familiarized with the potential incidents that are related to the oil and gas development so that those agencies have the capability to provide the support necessary for the implementation of this SSP. This may include (within 7 days from land disturbance or well work activities): providing first responder agencies with a copy of this SSP and arranging tours of sites in the area.

Requesting public emergency response assistance for this location would be accomplished via telephone to Barbour County Dispatch which can be reached by dialing 911. From there, they will dispatch the appropriate and available emergency response agencies depending on the nature and extent of the emergency. This location is within the Philippi Volunteer Fire Department's Area.

Barbour County Dispatch	911 emergency
West Virginia State Police	304-457-1101
Philippi Volunteer Fire Dept.	911/ 304-457-1234
Broadus Hospital	304-457-1760
Barbour County Health Dept.	304-457-1670
DEP Oil & Gas Inspector Bill Hatfield	304-767-1828

Below are the emergency contacts for Consol personnel and contractors:

	Extension (304)	Cellular	Home (304)
Lambert, Scott * Safety	884-2067	641-3339	269-3888
Roddy, Dave * ENVIRONMENTAL		406-4792	
Casto, Bristin	884-2121	641-1978	641-1978
Walsh, John	884-2139	641-3640	472-0514
Estanich, Joe	884-2013	641-3649	842-5270
Krcek, Robert	884-2126	641-1544	363-8954
Fanning, Geoff	884-2046	724-833-0881	724-833-0881
Smith, Tim	884-2213	308-5171	308-5171
Bowman, Aaron	884-2231	406-8561	406-8561
Honce, Mike	884-2170	406-8909	406-8909
Miller, Anthony	884-2178	641-1481	476-7990
Martincic, Wes	884-2170	406-8103	406-8103
Lam, Nagi	884-2170	904-0596	904-0596
Spitler, Steve	884-2017	406-8478	406-8478
Drake, Dave *	884-2136	997-7766	997-7766
Eskey, Kirby *	884-2195	997-2934	997-2934
Heathco, Bill *	884-2054	641-0079	
Jones, Rich *	884-2177	641-3644	269-1552
McMillion, Travis *	884-2087	641-0648	765-7961
Pritt, Tod (Jamie L.) *	884-2148	641-0874	853-2638
Fredrick, Mike *	884-2051	641-0092	472-9124
Grogg, Mark *	884-2190	641-0893	462-8175
Smith, Craig *	884-2133	641-1377	924-6182
Stewart, Jason *	884-2006	685-6520	284-9306
Swisher, Keith	884-2047	641-9591	
Turner, Chris *	884-2142	641-3647	745-3329
Jeremy Jones	884-2118	276-970-1553	

* Production Coordinators

MATERIAL SUPPLIERS FOR WEST VIRGINIA		After Hours
Cook's Hardware	304-732-8466	
Foster Feed	304-269-1333	
McJunkin Appalachian (Buckhannon)	304-472-3565	Steve Schimmel 304-613-7901
McJunkin Appalachian (Hurricane)	800-649-8212	304-552-1237
Midway Tri-State	304-269-0680	Pager, 304-987-3809 for Daniel Turner
Miller Supply, Glenville, WV	304-462-5726	Pager, 304-987-3808 for Denver Riley
Miller Supply, Marietta, Ohio	740-373-6806	Pager, 304-987-3804 for Sam Moore
Miller Supply, Cheylan, WV	304-595-5105	Burl 304-462-5865
Miller Supply, Weston (Bob Sandy)	304-269-3850	Jason 304-462-5852
National Oilwell (Brian Rogers)	304-884-7344	Jeff 304-462-7029
Perkins Oil & Gas (Clay / Darrell)	304-659-3570	Shop phone will roll over to individuals
Priddy's Hardware	304-253-3679	Darrell 684-9584 Clay 740-473-2078
Producers Supply (Pa.)	724-627-6800	
Red Man Supply-Phil Stutler	304-269-8471	Phil 884-7476 Jim Posey 269-4212
Southern States	304-624-5054	
Swisher's Feed & Supply	304-269-3317	

CONTRACTORS FOR WEST VIRGINIA		After Hours
Alfred Construction (Steve)	304-842-7163	304-677-0160
Antler Welding	304-732-9520	304-732-8616
B & B Well Service	304-462-5694	304-678-9991
Brad Wilson	304-269-6160	304-269-3792
Chisler Brothers (Roy Dale)	304-879-5511	
D & R Roustabout (Don Carder)	304-269-0838	304-269-2565
Doss Enterprise (Dwayne)	304-269-5895 or 269-6802	304-677-0011 Terry Junkins 304-266-8619 304-462-4144
Echo Valley (Bill)	304-363-6289	304-871-6160 Brad Wilson 304- 269-6160
Eagle Oilfield Services (Scotty)	304-462-7057	304-871-2147
Frame Oilfield Services (Rick)	304-462-7843	304-476-7843
G-Force Contracting (Jamie)	304-203-2555	304-269-1668
Gasfield Services	276-880-2323	276-971-6080
Gould Construction	304-269-6057	
Huffman Construction (Ed)	304-745-3952	304-677-3952
J.W. Pit	304-988-3300	
Key Energy (Darrell)	304-472-1363	655-8888
Larry Lambert	304-687-9254	304-682-5351
Pethal, Don	304-269-2047	304-641-2223
Poncove	304-934-7500	304-228-7375
Robey Excavation (Mike & Brian)	304-783-4948	304-677-0897 304-677-9141
Ryans Environmental	304-842-5578	800-649-5578
S.S. Services (Stu)	304-462-7178	304-462-5500 © 644-0462
Shackleford Construction (Jim)	304-462-8823	
Southall Contracting	304-269-6527	304-641-2882
Sowards	304-743-2320	
STE (Summit Transport Environmental)	304-269-3382	304-269-5644 © 641-0059
Stalnaker & Son	304-439-1821	
Swiger Logging	304-782-4241	304-871-5055
Trenton Energy (Gerald Hall)	304-869-3805	304-869-3800
Wilson & Wilson Well Service	304-986-2485	304-986-3611
MATERIAL SAFETY DATA SHEETS	HOT LINE	800-451-8346
MISS UTILITY	800-245-4848	

3.0 Casing Requirements/Activities

3.1 Drilling, Completion, and Production Activities

- **Drilling**

A pre-spud notification of at least 24 hours will be given to the local area DEP inspector. A Pre-spud safety meeting will be conducted with all company and contract personnel prior to "rig up" or any associated activity. Once "rig up" operations has commenced, there will be drilling engineers on site for 24 hour operations. Their primary job responsibilities are hazard and risk analysis, as well as maintaining a safe and environmentally compliant site. They will also be monitoring and recording daily drilling activities to ensure all parameters remain in compliance.

- **Completion**

Once drilling operations are complete, a pre-completions safety meeting will be conducted will all company and contract personnel prior to beginning activities. Once completions activities has commenced, there will be completions engineers on site for 24 hour operations. Their primary job responsibilities are hazard and risk analysis, as well as maintaining a safe and environmentally compliant site. They will also be monitoring and recording daily completions activities to ensure all parameters remain in compliance.

- **Production**

Once the wells have been turned in line, there will be well operators on site for 24 hours, 7 days a week. Their primary job responsibilities are hazard and risk analysis, as well as maintaining a safe and environmentally compliant site. They also will be monitoring casing and tubing pressures, gas volumes, and water production. It will also be vital that the production tanks and pits be monitored as well to remain in compliance. Once 24 hour monitoring is no longer needed, there will be a well operator on site for 12 hours a day, 7 days a week. Their duties will include hazard and risk analysis of any work being done, maintaining a safe and environmentally compliant site, and general housekeeping duties to ensure a clean and efficient work space. The casing and tubing pressure, gas volumes, as well as water production for each well will be monitored on a daily basis. Operators will also monitor the pits and water tanks on location to make sure that they are in compliance.

Refer to WW-6B below for further detail

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION

1) Well Operator: CNX Gas Company LLC 494458046 Upshur Warren Century
Operator ID County District Quadrangle

2) Operator's Well Number: CENT3AHS Well Pad Name: CENT3HS

3 Elevation, current ground: 1534' Elevation, proposed post-construction: 1536'

4) Well Type: (a) Gas Oil
Other _____
(b) If Gas: Shallow _____ Deep
Horizontal

5) Existing Pad? Yes or No: No

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):
Formation - Marcellus, Depth - 7815', Thickness - 90', Pressure - 3000#

7) Proposed Total Vertical Depth: 8205'

8) Formation at Total Vertical Depth: Huntersville Chert

9) Proposed Total Measured Depth: 14921'

10) Approximate Fresh Water Strata Depths: 85', 852', 945'

11) Method to Determine Fresh Water Depth: Reference offset wells

12) Approximate Saltwater Depths: None Reported

13) Approximate Coal Seam Depths: 945'

14) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

15) Does land contain coal seams tributary or adjacent to, active mine? No

16) Describe proposed well work: Drill and stimulate new horizontal Marcellus well. Well to be drilled to a TMD of 14921'. Well to be drilled to a TVD of 8205' for logging purposes, formation at TVD - Huntersville Chert. Well will be plugged back to an approximate depth of 7200' (approximate due to exact Kick of 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.

17) Describe fracturing/stimulating methods in detail:
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.

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): 12.46 Acres

19) Area to be disturbed for well pad only, less access road (acres): 9.74 Acres

Received

MAY 20 2013

Rec'd 5/20/13

20)

CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft.</u>	<u>FOOTAGE: For Drilling</u>	<u>INTERVALS: Left in Well</u>	<u>CEMENT: Fill -up (Cu. Ft.)</u>
Conductor	20"	N	L.S.	81.3#	80'	80'	Grout to Surface
Fresh Water	13 3/8"	N	J 55	54.5#	1000'	1000'	PTC w/ Approval: Class A Type Cement
Coal							
Intermediate	9 5/8"	N	J-55	36#	2500'	2500'	CEC w/ Approval: Class A Type Cement
Production	5 1/2"	N	P-110	20#	14921'	14921'	2400 psi P-110 P12 LHM 5 Class A Tail
Tubing	2 3/8"	N	J-55	4.7#	8405'	8405'	
Liners							

<u>TYPE</u>	<u>Size</u>	<u>Wellbore Diameter</u>	<u>Wall Thickness</u>	<u>Burst Pressure</u>	<u>Cement Type</u>	<u>Cement Yield</u>
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	12640	Class A Type	1.26
Tubing	2 3/8"	8 3/4" & 8 1/2"	0.190	7700	-----	-----
Liners						

PACKERS

Kind:	None			
Sizes:	None			
Depths Set:	None			

21) 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 fourth joint until inside Surface casing. Production - Rigid bow spring centralizer on first joint then every 2 joints (free floating) through the lateral and the curve.
(Note: cementing the 5 1/2" casing completely in open hole lateral and curve.)

22) Describe all cement additives associated with each cement type. Conductor - 2% CaCl₂. Fresh Water/Coal - 2% CaCl₂. Intermediate - 2% CaCl₂. Production: 2.8% Cement extender, 0.7% Fluid Loss Additive 0.5% High Temperature Retarder, 0.2% Friction Reducer.

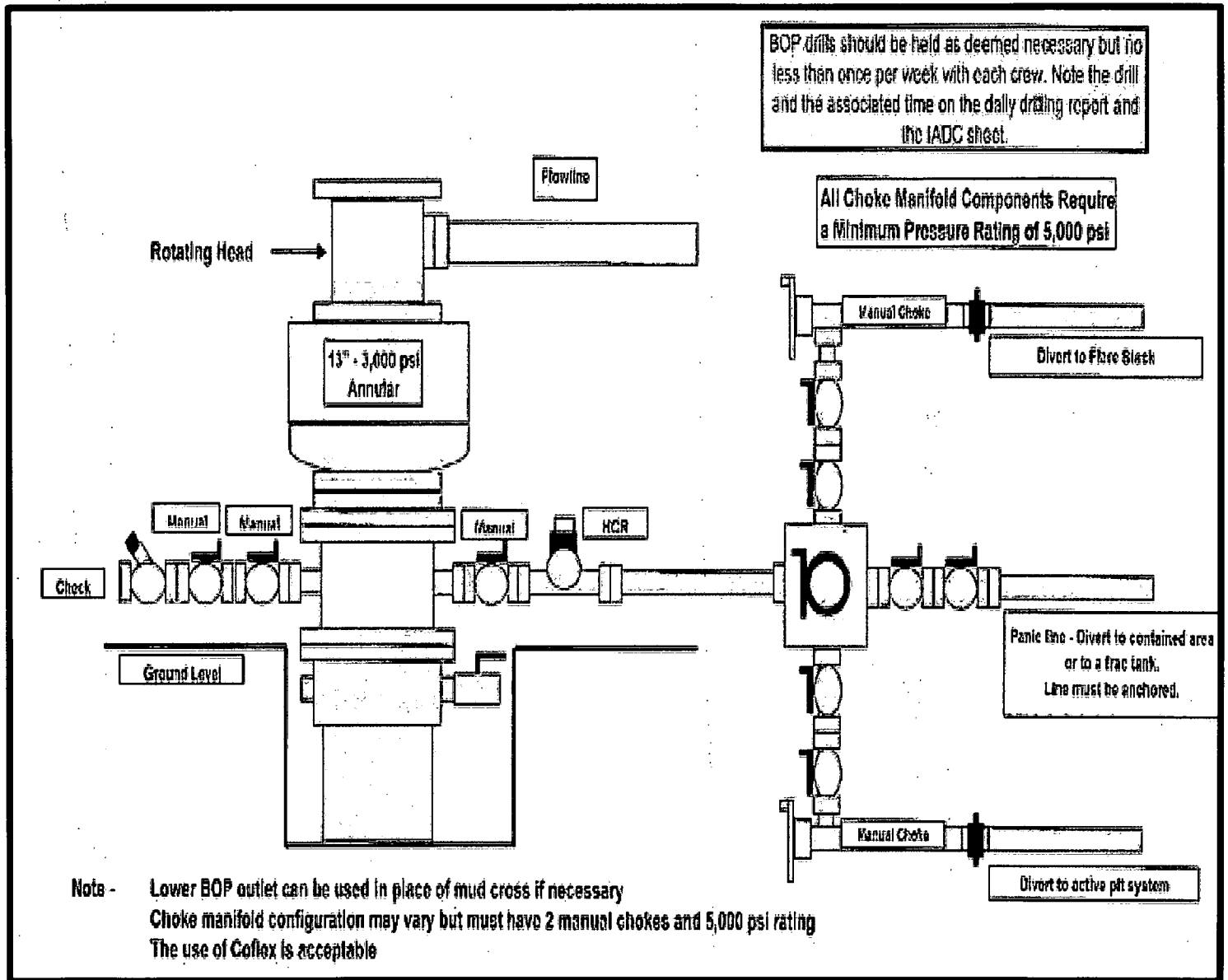
23) Proposed borehole conditioning procedures. Conductor - The hole is drilled w/ air and casing is ran in air. Apart from insuring the hole is clean via air circulation at TD there are no other conditioning procedures. Fresh Water/Coal - The hole is drilled w/ air and casing is ran in air. Once casing is on bottom the casing shoe will be cleared 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 fresh water and gel prior to cementing. (Note: Drilling soap may be utilized if the hole gets wet/damp during the drilling of all air holes with the exception of the conductor). Production - The hole is drilled with synthetic oil base mud and once at TD the hole 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.

4.0 BOP Requirements and Wellhead

4.1 BOP Equipment

The following is a list of all BOP equipment with types, sizes and ratings to be utilized and available during the drilling of the deep well.



4.2 Procedure and Schedule for Testing BOP Equipment

Well Control Equipment Testing

- i. Perform all tests described below using clear water or an appropriate clear liquid for subfreezing temperatures with a viscosity similar to water.
- ii. Annular type preventers shall be tested to 50 percent of rated working pressure. This test shall be performed prior to drilling out 9 5/8" casing shoe.
- iii. Valves shall be tested from working pressure side during BOPE tests with all downstream valves open.
- iv. All of the above described tests and/or drills shall be recorded in the drilling log.

4.3 BOP Installation Schedule

The BOP will be installed after running intermediate casing. BOP equipment shall be installed on the innermost string of casing after the intermediate casing.

4.4 BOP Training

All supervisors and toolpushers used on this well will be BOP trained and certified. A trained person will be present during the drilling operations. Training dates of personnel are located in Appendix C. Training certificates will be available for review upon request.

4.5 Drilling Record

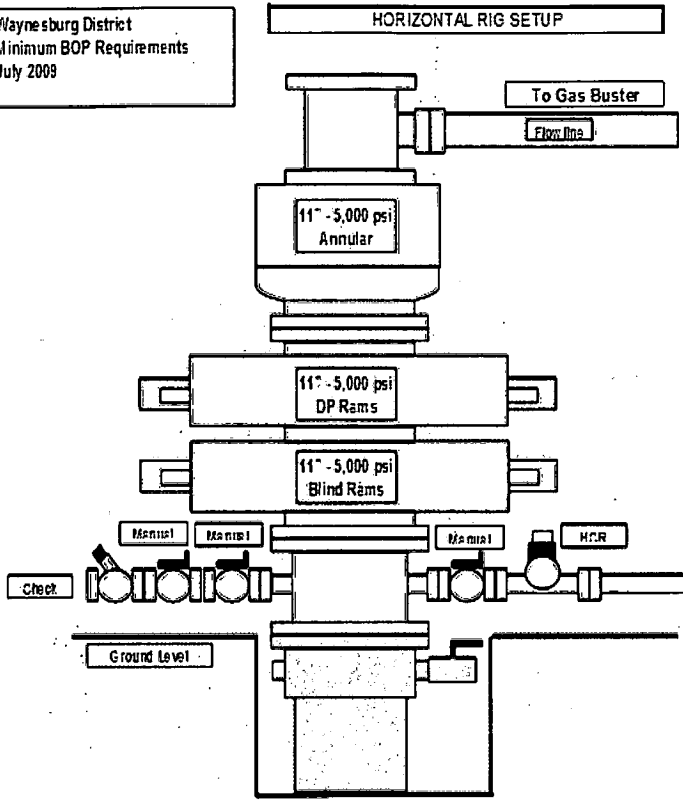
Detailed records of significant drilling events such as lost circulation, fluid entry, abnormal pressures, etc. are maintained through a daily log in the doghouse. The daily log allows the drilling superintendant to enter daily reports containing the specified information. The records are then retained electronically in Consol's office in Jane Lew, WV.

The Emergency Response Plan for this operating area requires the district oil and gas inspector or the designated Office of Oil and Gas representative be notified as soon as possible of any unusual drilling events such as large kicks that occur during drilling operations. Any encounter of hydrogen sulfide gas requires immediate notification of the DEP Office of Oil and Gas.

4.6 Wellhead Assembly

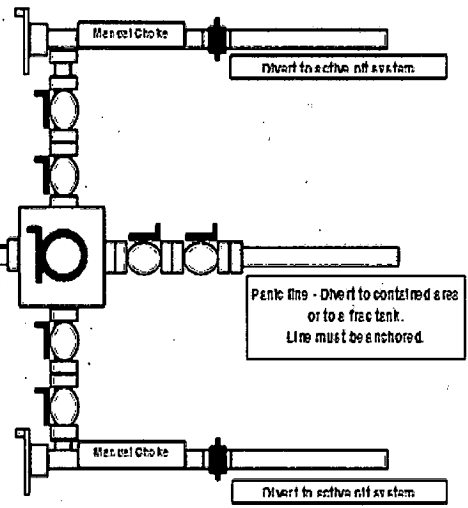
Below is a diagram of the wellhead to be installed upon completion of fracturing operations.

Waynesburg District
 Minimum BOP Requirements
 July 2009



BOP drills should be held as deemed necessary but no less than once per week with each crew. Note the drill and the associated time on the daily drilling report and the IADC sheet.

All Choke Manifold Components Require a Minimum Pressure Rating of 5,000 psi

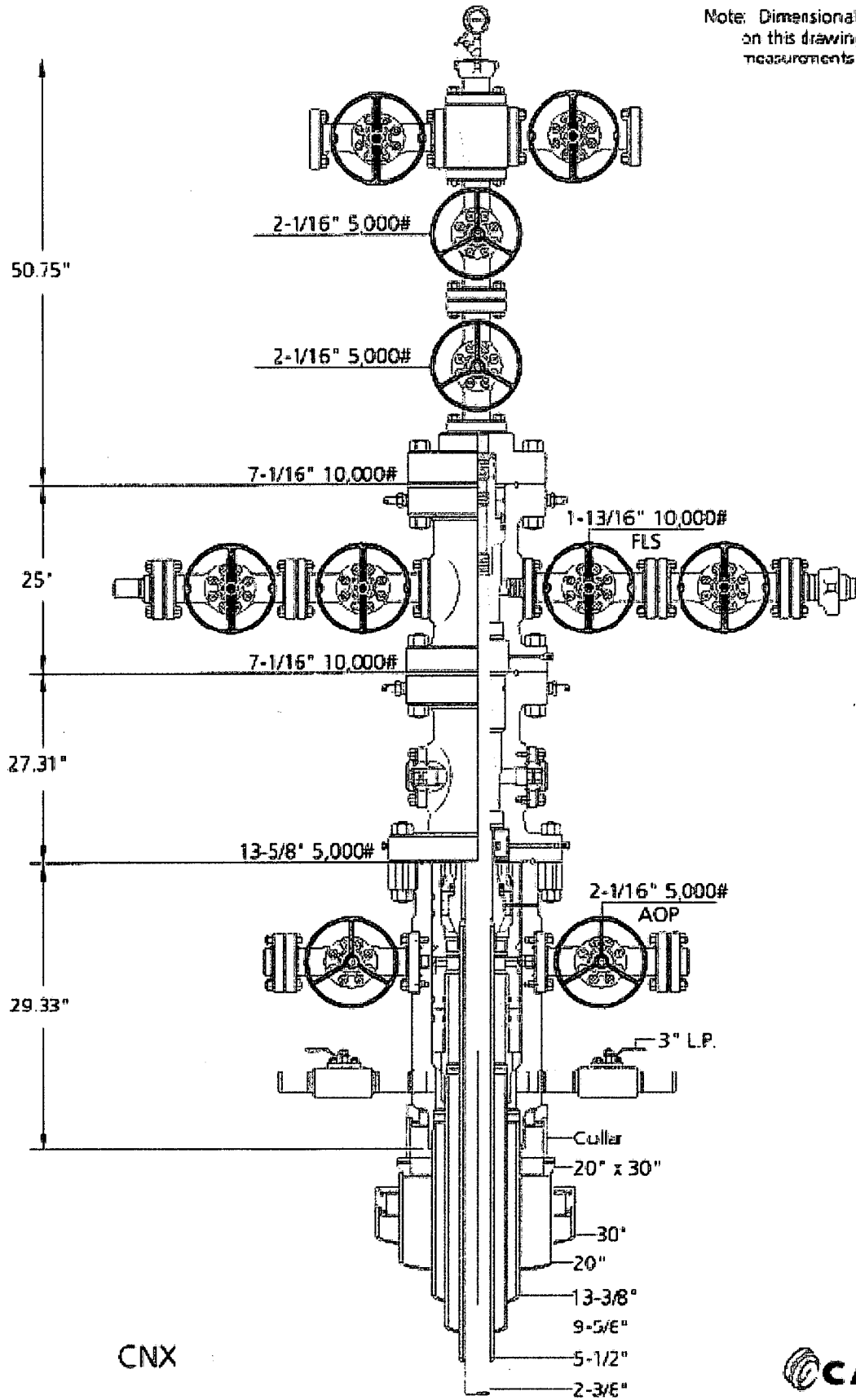


Note - Lower BOP outlet can be used in place of mud cross if necessary
 Choke manifold configuration may vary but must have 2 manual chokes and 5,000 psi rating
 The use of Coflex is acceptable

Remote Controls

Remote controls shall be readily accessible to the driller. Remote controls for all systems shall be capable of closing the preventer. Remote controls systems shall be capable of both opening and closing the preventer.

Note: Dimensional information reflected on this drawing are estimated measurements only.



CNX

 **CAMERON**

DATE	11-30-12	DESIGNED BY	C.R./J.L.
REV		DRAWN BY	
			# 21028853-A

5.0 Well Flaring Operations

5.1 Size, Construction and Length of Flare Line

The flare line will be a 3" diameter, steel line that extends a minimum of 50' from the well. A small diameter steel line will parallel the flow line and serve as the pilot to ignite the flare. The end of the kill line will also be at the terminus of the flow line.

5.2 Flare Anchor and Choke Assembly

The line will be anchored to the surface of the ground by cross pinning it in place using metal staking at multiple points along the line. A 2" kill line will replace any need for a choke assembly.

5.3 Flare Lighting System

The system for lighting the flare will be ¼" pilot line fueled by propane. A flare gun will be used as a backup. Notification to the local fire department prior to lighting the flare will be given immediately if practicable and as soon as possible thereafter.

5.4 Flare Safe Distances

The flare line(s) discharge shall be located not less than 50 feet from the well head, having straight lines unless turns are targeted with running tees, and shall be positioned downwind of rig and trailers. The flare system shall have an effective method for ignition. All flammable material beyond the end of the flare line will be cleared to a minimum distance of 50 feet. The drill pit will be less than 5000 bbls capacity.

5.5 Flare Duration

The flare operations, upon ignition, will last approximately 14 continuous days per well drilled and completed.

6.0 Well Killing Operations

If well killing is necessary, a contracted service company will be on stand-by. Contracted service company has appropriate chemicals and mixing units to provide KCL water or weighted mud if necessary for killing operations.

In event the decision is made to activate the BOP, a soft closure method will be utilized.

7.0 Hydrogen Sulfide Operations

7.1 H2S Monitoring

We do not anticipate any H2S while drilling.

7.2 H2S Training

We do not anticipate any H2S while drilling.

7.3 Personal Protection Equipment

The following personal protection equipment will be available and in use as needed on location:

- Hardhats,
- safety shoes,
- safety glasses and/or safety goggles/face shields,
- hearing protection earplugs, and
- work gloves

In the event that other hazards are identified or presented during the drilling operation, we will attempt to eliminate the hazard, and if not practical, additional PPE will be provided to mitigate the risk to the worker.

7.4 H2S Notification and Control

We do not anticipate any H2S while drilling.

8.0 Notification

In an emergency which requires the notification of residents and emergency personnel that may be affected during drilling activity, the emergency response plan will be immediately implemented. This plan specifies the roles and responsibilities of onsite personnel in case of emergency and addresses emergency notification of potentially affected residents and public emergency response personnel.

All CONSOL Gas HAZWOPER trained at the first responder operations level.

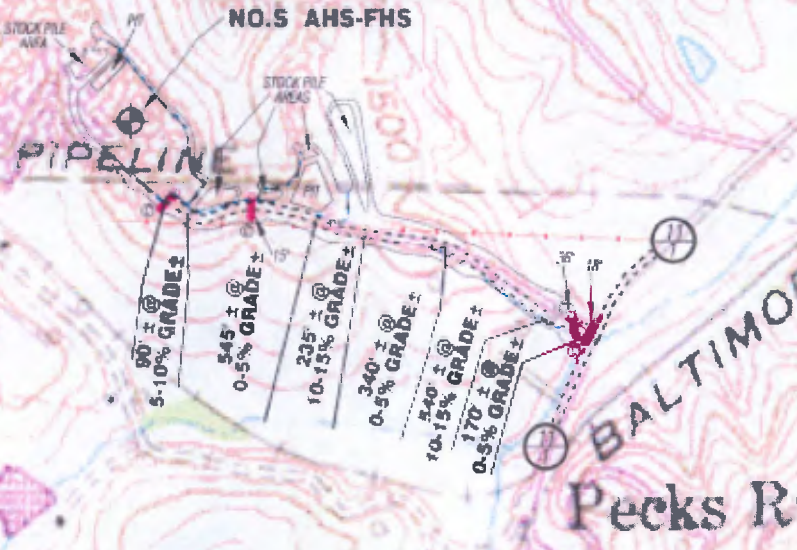
For well # **CENT3AHS**, no residents dwell within 1500' of location.

A list of Potentially Affected Parties, if applicable, is in Appendix D. This is a tabulation of all businesses, residence, schools within a one mile radius. This represents the current owners of record as recorded in the courthouse.

V. WHITE LEASE CENT 3 WELL NO.S AHS-FHS

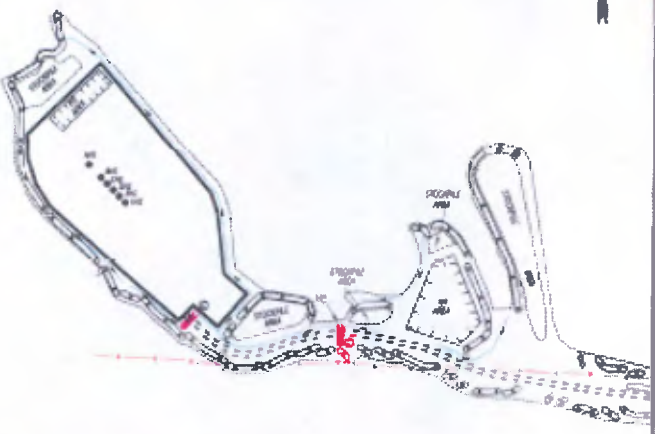


PROPOSED GAS WELL NO.S AHS-FHS



Detail Sketch for Proposed AHS-FHS Wells

NOTE: SEE SITE PLAN CENTER FOR COMPLETE
CONSTRUCTION & FINISH & SETBACK
CONTRACT DETAILS



ALL ROAD SHOWINGS ARE AN EXISTING OR AS SHOWN
PROPERTY SHALL BE MAINTAINED AS ACCORDANCE WITH THE
THE STATE ROAD DEPARTMENT REQUIREMENTS OF ECONOMIC STATE ROAD
SHALL BE MAINTAINED AS ACCORDANCE WITH THE STATE ROAD
DEPARTMENT REQUIREMENTS AND REQUIREMENTS OF THE STATE

SECURITY CONCERNS (HEAVY AND APPROXIMATELY REQUIRE CONCRETE
FOUNDATIONS TO BE CONSTRUCTED AT ALL EXISTING AND PROPOSED
WELLS AND ALL OTHERS AS SET BACK FROM THE PROPERTY LINE AND
GAS PIPE LINES. THIS CONSTRUCTION SHALL BE CONSTRUCTED AND
REMOVED AND MAINTAINED AT ALL TIMES FROM THE PROPOSED
WELL CONSTRUCTION AND APPROXIMATELY REQUIRE CONCRETE
FOUNDATIONS SHALL BE CONSTRUCTED AND SET BACK AS NOTED.

ALL WELLS CONSTRUCTION SHALL BE APPROXIMATELY AS SHOWN BY THE
THE STATE ROAD DEPARTMENT REQUIREMENTS AND REQUIREMENTS OF THE
PLAN.

PROPERTY SETBACKS AND CONSTRUCTION SHALL BE APPROXIMATELY AS
SHOWN.

ALL CONSTRUCTION SHALL BE APPROXIMATELY AS SHOWN.

ALL CONSTRUCTION SHALL BE APPROXIMATELY AS SHOWN.

ALL CONSTRUCTION SHALL BE APPROXIMATELY AS SHOWN.

ALL CONSTRUCTION SHALL BE APPROXIMATELY AS SHOWN.

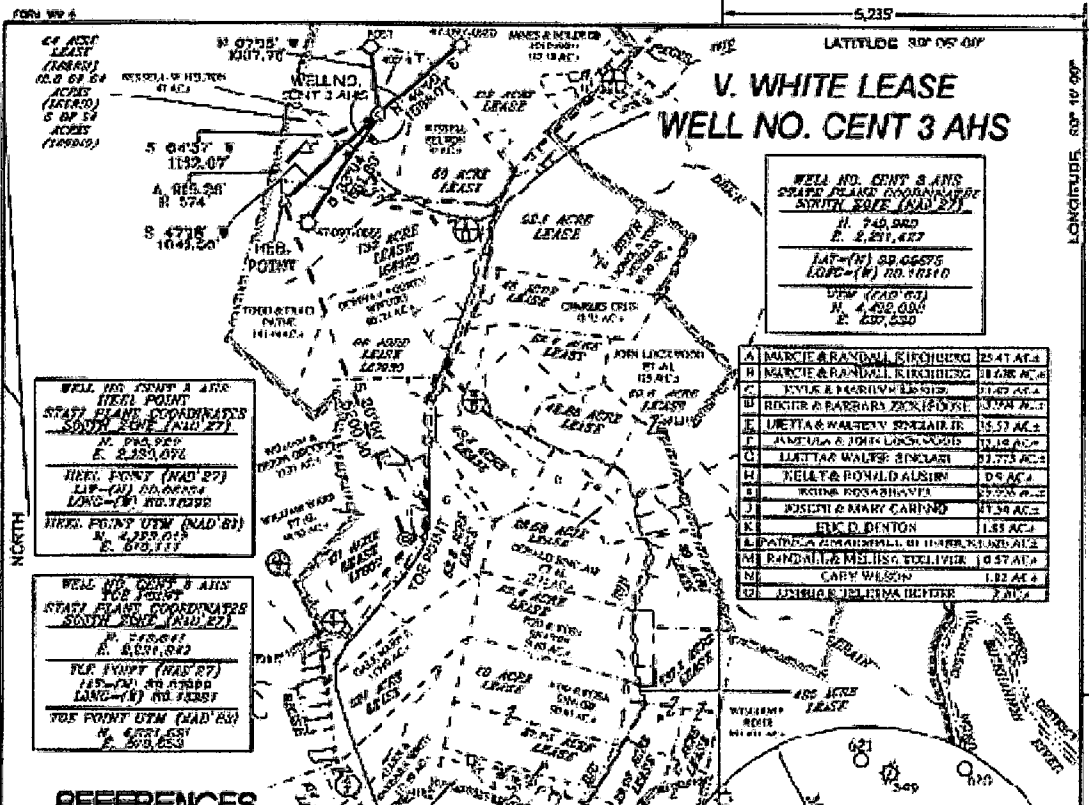
SLS
SOUTH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV 26031
PH: 304/487-5656 FAX: 304/487-5625 E-MAIL: sls@surveys.com

DESIGNED BY K.G.W.	PLZ NO. 1788	DATE 01/25/13	LOAD FILE 17888-1000
-----------------------	-----------------	------------------	-------------------------

TOPO SECTION OF CENTURY 7.5'
USGS TOPO QUADRANGLE

Legend:

- PROPOSED GAS WELL
- PROPOSED PIPELINE
- PROPOSED SETBACK
- PROPERTY LINE
- STOCK PILE AREA

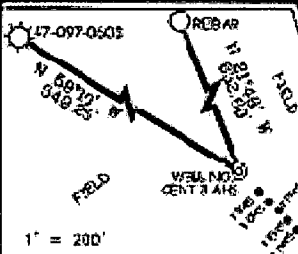


WELL NO. CENT 3 AHS
 STAFF PLANE COORDINATES
 SOUTH EDGE (NAD 83)
 N. 740,500
 E. 2,211,427
 LAT=(N) 39.06675
 LONG=(W) 80.18110
 UTM (NAD 83)
 N. 4,452,000
 E. 200,530

WELL NO. CENT 3 AHS
 STAFF PLANE COORDINATES
 SOUTH EDGE (NAD 83)
 N. 740,500
 E. 2,211,427
 UTM (NAD 83)
 N. 4,452,000
 E. 200,530

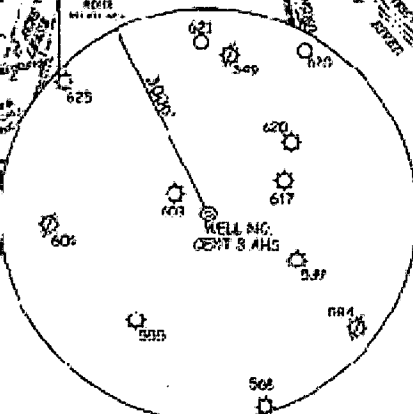
WELL NO. CENT 3 AHS
 STAFF PLANE COORDINATES
 SOUTH EDGE (NAD 83)
 N. 740,500
 E. 2,211,427
 UTM (NAD 83)
 N. 4,452,000
 E. 200,530

REFERENCES



NOTES ON SURVEY

1. TIES TO WELLS, REFERENCES, AND CORNERS ARE BASED ON 420 SOUTH FOR THE NAD 83 PLANETOCENTRIC SYSTEM SOUTH ZONE 18Q 31.
2. LEASE BOUNDARIES SHOWN HEREIN FORMERLY A WELL OPERATED BY TWD, D&L AND AROUND CORNER AND WELL PILES.
3. SURFACE OWNER AND ADDRESS INFORMATION TAKEN FROM THE ADJACENT AND COUNTY CLERK RECORDS OF DEEDS, DEEDS IN JUD. 2012.
4. WELL LOG ALONG (UNITS) ESTABLISHED BY DEPT. SURVEY GROUP.



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

P.S.
677

Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JANUARY 28, 20 13
 OPERATOR'S WELL NO. CENT 3 AHS
 API WELL NO. 47
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 69023AHSR142241
 PROVEN SOURCE OF ELEVATION GPS (SURVEY GRADE) SCALE 1" = 200'

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

WELL TYPE: OIL LIQUID WASTE IF GAS PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1634.2 WATERSHED PECKB RUN
 DISTRICT WARREN COUNTY UPSHUR QUADRANGLE CENTURY 7.6
 SURFACE OWNER JERRELL HILTON ALPINE# 437
 ROYALTY OWNER V. WHITE ET AL LEASE ACREAGE 64, 133.99, & 101 1/2
 PROPOSED WORK: LEASE NO.
 DRILL CONVERT GRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REFLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH TVD 8,395' / TMD 14,821'

WELL OPERATOR CNX GAS COMPANY, LLC. DESIGNATED AGENT JEREMY JONES
 ADDRESS P.O. BOX 1248 ADDRESS P.O. BOX 1248
JANE LEW, WV 26378 JANE LEW, WV 26378

LONITUDE 80° 10' 00"

COUNTY NAME

PERMIT

Driving Directions to CENT 3

CNX Gas Company

Beginning at the intersection of Interstate Route 79 (I-79) and U.S. Route 119/U.S. Route 33 in Lewis County, West Virginia; proceed on U.S. Route 119/U.S. Route 33 in an easterly direction 10.3 miles +/- to the off ramp for U.S. Route 119 and West Virginia State Route 20 Buckhannon Exit;

Proceed North (turn left) onto State Route 20/US Route 119 traveling 5.3 miles to the town of Hodgesville and the intersection of County Route 1.

Turn right onto Upshur County Route 1 traveling in an eastern direction for 1.5 miles to the intersection of County Route 11/1.

Turn right onto County Route 11/1 traveling in a southern direction 0.5 miles to an existing gas well road on the right.

The Well Access Road Entrance Latitude and Longitude: (NAD 83)

Latitude: 39.05447°

Longitude: -80.17807°



OPERATOR: CNX Gas Company, LLC.

LEASE NAME AND NUMBER: V. Lease Well No. Cent 3 AHS

COMMENTS

The initial mapping review of the area surrounding the proposed well site revealed the below listed surface owner(s) that were potentially utilizing groundwater (potable) for Human Consumption or other purposes within 2500' of the proposed well site. The following landowners will be notified of the opportunity to request a water sample.

*Please note that the following information is subject to change upon field inspection.

INDIVIDUAL CONTACTED OR NOTIFIED

Owner/Occupant: Todd F. Payne, Traci K. Payne & Todd Payne

Address: Rt 5 Box 197 A, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 91

Owner/Occupant: Russell W. Helton

Address: Rt 5 Box 198, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 94

Owner/Occupant: Patricia Ann & Samuel J. Christian

Address: RT 5 Box 197AA, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 93.1

Owner/Occupant: Samuel J. & Patricia Ann Christian

Address: RT 5 Box 197AA, Buckhannon, WV 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 93.2

Owner/Occupant: Russell W. Helton

Address: Rt 5 Box 198, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 7D Par # 1

Owner/Occupant: Lionel R. & Toni C. Newman
Address: RT 5 Box 197, Buckhannon, WV, 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 2

Owner/Occupant: Travis C. & Megan G. Bennett
Address: RT 3 Box 165D, Buckhannon, WV, 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 2.1

Owner/Occupant: Christopher D. Alkire c/o WV Housing Dev. Fund
Address: 814 Virginia St. E. Charleston, WV, 25301 Letter/Notice Date: _____
Comments: Map 7D Par # 2.2

Owner/Occupant: James & Kim Lowther
Address: RT 5 Box 197-B, Buckhannon, WV, 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 2.3

Owner/Occupant: Lucetta J. & Walter V. Simclair Jr.
Address: 15 Pecks Run Rd., Buckhannon, WV, 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 6

Owner/Occupant: Jeffrey Scott Johnson & Judy Lynn Johnson
Address: RR 5 Box 197-C, Buckhannon, WV, 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 55

Owner/Occupant: Florinda Soles
Address: RT 5 Box 198-B-C, Buckhannon, WV, 26201 Letter/Notice Date: _____
Comments: Map 7C Par # 46.3

Owner/Occupant: _____
Address: _____ Letter/Notice Date: _____
Comments: _____

V. LEASE WELL NO. CENT 3 AHS



Professional Energy Consultants

 SLS
 716 8th St
 Charleston, WV 25301
 Phone: 304.762.1234
 Fax: 304.762.1235
 Email: info@slsenergy.com

DRAWN BY: H.D.W. FILE NO: 7999 DATE: 01-25-13 CAD FILE: 799902012.dwg

TOPO SECTION OF: CENTURY, WV 7.5' QUAD		
COUNTY	DISTRICT	TAX MAP-PARCEL NO.
UPSHUR	WARREN	EC-94

OPERATOR:
 CNX GAS COMPANY, LLC.
 P.O. BOX 1248
 JANE LEW, WV 26379

6/19/13

Per Amanda Langford Wright this includes businesses, churches, schools etc..

CR

CENT3HS SURFACE OWNERS WITHIN A MILE RADIUS

NAME:	ADDRESS:	PHONE #:
ADAMS ARGIL WOODROW	ROUTE 1 BOX 222	BUCKHANNON WV 26201 9725 472-8596
ADAMS THOMAS W	ROUTE 1 BOX 222	BUCKHANNON WV 26201 9725 472-8596
AKERS DAVID P & MARGARET W	ROUTE 5 BOX 364	BUCKHANNON WV 26201 9114 472-2226
ANDREW ERNEST S II & KAREN S	ROUTE 5 BOX 198 BBB	BUCKHANNON WV 26201 9113 *
AREY ED & SONS INC	P O BOX 206	BUCKHANNON WV 26201 0206 472-3506
AREY GERALD C	190 POCAHONTAS STREET	BUCKHANNON WV 26201 2566 472-4161
BALTIMORE & OHIO RR CO	500 WATER ST C910	JACKSONVILLE FL 32202 4423 904-633-1000
BARGER CLYDE R & NANCY A	ROUTE 5 BOX 398 C	BUCKHANNON WV 26201 9117 *
BENNETT BRUCE L BENNETT JACQUELINE D	RT 1 BOX 294	BUCKHANNON WV 26201 9770 472-8303
BENNETT CHRISTOPHER C	ROUTE 5 BOX 196-1	BUCKHANNON WV 26201 9110 *
BENNETT TRAVIS C & MEGAN G	RR 5 BOX 198-0	BUCKHANNON WV 26201 9113 *
BENNETT TRESSIE L	P O BOX 2031	BUCKHANNON WV 26201 7031 *
BENSON BARBARA E	ROUTE 1 BOX 219	BUCKHANNON WV 26201 9725 473-1156
BENSON DOUGLAS A & MICHELE D	ROUTE 1 BOX 219	BUCKHANNON WV 26201 9725 472-1057
BOARD OF EDUCATION OF UPSHUR COUNTY		BUCKHANNON WV 26201 472-3212
BOSLEY CAROL D SOTHEN RICKY V	RT 1 BOX 91	VOLGA WV 26238 9140 *
BOWSER LORRAINE M & RONALD F	RR 5 BOX 517	BUCKHANNON WV 26201 9120 *
BOYLES JIMMIE R & LINDA	ROUTE 5 BOX 372	BUCKHANNON WV 26201 9114 472-1253
BROWN LARRY D & LINDA L	RT 5 BOX 374	BUCKHANNON WV 26201 9114 472-3121
BROWN ROBERT A BROWN ANNA LORRAINE	RR 1 BOX 216	BUCKHANNON WV 26201 9725 *
BYRD DAVID R	RT 1 BOX 92-A	VOLGA WV 26238 9140 472-5890
CALHOUN BARBARA J & RALPH SR	RT 5 BOX 370	BUCKHANNON WV 26201 472-3173
CAMPBELL HELEN G WILSON JENA D	RT 5 BOX 395-A	BUCKHANNON WV 26201 9116 *
CANTER JIMMY LEE & MARTHA JANE		472-3216
CARBONARA CARL F	P O BOX 208	VOLGA WV 26238 0208 457-5163
CARPENTER DAVID L & JOYCE L	ROUTE 5 BOX 395-B	BUCKHANNON WV 26201 9116 472-8529
CARR CRYSTAL C & STEPHEN M	ROUTE 5 BOX 196 B	BUCKHANNON WV 26201 9108 472-4819
CARRICO JOSEPH & DEBRA GILLUM	ROUTE 5 BOX 399	BUCKHANNON WV 26201 9117 472-6861
CHAMBERLAIN LAURIE ANN FORNEY ROBERT LAVERN	RR 1 BOX 210A	BUCKHANNON WV 26201 473-0268
CHANNELL JUNIOR W	ROUTE 1 BOX 214D	BUCKHANNON WV 26201 9724 472-4195
CHRISTIAN SAMUEL J CHRISTIAN PATRICIA ANN	RT 5 BOX 197-AA	BUCKHANNON WV 26201 9110 *
CLAYPOOL ROSCOE E	ROUTE 5 BOX 395-1	BUCKHANNON WV 26201 9805 472-7498
COASTAL LUMBER CO	P O BOX 709	BUCKHANNON WV 26201 *
COSTELLO CARL B & JENNIFER L	ROUTE 5 BOX 195-1	BUCKHANNON WV 26201 9108 473-1007
COTTRELL DONNA S AKA SAPP DONNA S	RT 5 BOX 371-A	BUCKHANNON WV 26201 9114 *
CRAVER MARIANNE FORTUNA CARL	320 JEFFERSON ST	CARNEY'S POINT NJ 08069 2353 *
CRISS CHARLES SAMUEL & PEGGY J	RT 10 BOX 406	BUCKHANNON WV 26201 9470 *
CRISS CHARLES SAMUEL CRISS ROBIN ANN	RT 5 BOX 196-C	BUCKHANNON WV 26201 9110 *
CRISS DENVER ALLEN C/O RUTH CRISS	ROUTE 10 BOX 406	BUCKHANNON WV 26201 9470 *
CRITCHFIELD CHRISTOPHER L CRITCHFIELD DONNA J	RT 1 BOX 300	BUCKHANNON WV 26201 9770 472-1355
CURRENCE RICKY L	RR 5 BOX 382	BUCKHANNON WV 26201 9114 *
CUTLIP DERRICK B	RT 1 BOX 298	BUCKHANNON WV 26201 9770 *
CUTRIGHT DAVID M & SARAH A	59 PEACE LN	BUCKHANNON WV 26201 5900 *
CUTRIGHT JERRY M & SHARON K	ROUTE 5 BOX 388	BUCKHANNON WV 26201 9114 *
CUTRIGHT TERRY B & BRENDA	ROUTE 5 BOX 510	BUCKHANNON WV 26201 9119 *
DEAK RICHARD SPRINGFIELD EVA FAY	RR 5 BOX 189-B	BUCKHANNON WV 26201 9108 473-0639
DEAN RANDALL L JR & VANESSA L	RR 5 BOX 398	BUCKHANNON WV 26201 9117 *
DEAN RONALD RAY	70 SHUMAKER ROAD	BUCKHANNON WV 26201 8405 472-7602
DEBARR CHARLENE L DEBARR DAVID L	392 FROG RUN RD	BUCKHANNON WV 26201 8152 *
DEMASTES LEONARD G JR & GENEVIEVE	RT 1 BOX 229	BUCKHANNON WV 26201 9725 472-5177
DENEX PETROLEUM CORP	ROUTE 5 BOX 560	BUCKHANNON WV 26201 9126 457-1193
DEYNZER PAUL A & BENETTA P	RT 6 BOX 136	BUCKHANNON WV 26201 8813 *
DILTS WILLIAM C & HELEN R	RT 5 BOX 395-K	BUCKHANNON WV 26201 472-5446
EDMOND JAMES M & RHONDA K	ROUTE 5 BOX 198-BA-1	BUCKHANNON WV 26201 9113 *
ELLIS TODD N SILMAN MELISSA S	RT 5 BOX 365	BUCKHANNON WV 26201 9114 472-9069
EUBANK ROBERT SR & MARY	ROUTE 1 BOX 214-B	BUCKHANNON WV 26201 9724 472-6306
EVANS GARY W	118 HICKORY FLAT RD	BUCKHANNON WV 26201 8535 472-0788
FINSTER JAMES S	RR 1 BOX 214-A	BUCKHANNON WV 26201 9724 472-0958
GABRIEL JULIE J GABRIEL MARK A	RT 5 BOX 198-B2A	BUCKHANNON WV 26201 9113 *
GARRETT DELANA MAE	RT 5 BOX 375-A	BUCKHANNON WV 26201 9114 472-7907
GARRISON JOSEPH H & LOUISE	ROUTE 5 BOX 376-C	BUCKHANNON WV 26201 9114 472-7966
GEORGE KAREN K	ROUTE 5 BOX 376 A	BUCKHANNON WV 26201 9114 *
GIBBS EDWARD F & SHARON K	RT 1 BOX 276	BUCKHANNON WV 26201 472-6629
GIBSON MILDRED P SWIGER DAVID R	PO BOX 833	BUCKHANNON WV 26201 0833 *
GIFFORD PAUL J & JOSEPH M	ROUTE 5 BOX 363	BUCKHANNON WV 26201 9114 472-0143
GOSS JOHN II	ROUTE 5 BOX 395L	BUCKHANNON WV 26201 9116 472-6310
GRILL JOSEPH GRILL LURAY	RR 5 BOX 198-BB	BUCKHANNON WV 26201 9113 *

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DOT 2006 Color, 0.8 inch, TBL
OIL GAS, Full Size, PDF, p11

7/11/2013 1:01:20 PM (SURVEY FEET)
J:\081192\SLS Well Impoundment\05113_0 CAD\113_1 H 09\way\pfe\372est 01.dgn

PROJECT INFORMATION

PROJECT NAME: CENT 03
 TAX PARCEL:
 WARREN DISTRICT
 MAP 6D PARCEL 84 (TOTAL PROPERTY AREA = 47 +/- ACRES)
 MAP 7D PARCEL 1 (TOTAL PROPERTY AREA = 50 +/- ACRES)
 SURFACE OWNER:
 RUSSELL HELTON
 WARREN DISTRICT
 UPSHUR COUNTY, WV
 TOTAL PROPERTY AREA: 97 +/- ACRES
 TOTAL DISTURBANCE AREA: 12.10 +/- ACRES
 OIL AND GAS ROYALTY OWNER:
 V. WHITE OR ASSIGNS
 WARREN DISTRICT
 UPSHUR COUNTY, WV
 TOTAL PROPERTY AREA: 84 +/- ACRES

SITE LOCATION:
 THE CENT 03 SITE IS LOCATED 4305' +/- SOUTHEAST OF THE JUNCTION OF WV ST RT. 20 AND CO. RT. 1 AND ALSO 3825' SOUTHWEST OF JUNCTION OF CO. RTS. 1 AND 1/11.

LOCATION COORDINATES

CENT 03 WELL PAD CENTER
 LATITUDE: 39.05682 LONGITUDE: 80.16473 (NAD 83)

CENT 03 IMPOUNDMENT CENTER
 LATITUDE: 39.05608 LONGITUDE: 80.18217 (NAD 83)

CENT 03 ACCESS ROAD AT CR 11/1
 LATITUDE: 39.05446 LONGITUDE: 80.17807 (NAD 83)

GENERAL DESCRIPTION

THE WELL PAD AND ASSOCIATED IMPOUNDMENT IS BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

SITE DISTURBANCE COMPUTATIONS

WELL PAD/ACCESS ROAD/STOCKPILES AREA = 10.85 +/- ACRES
 IMPOUNDMENT AREA = 1.25 +/- ACRES
 TOTAL SITE DISTURBANCE AREA = 12.10 +/- ACRES

ENTRANCE PERMIT

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

MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET #1226977489. IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE PROJECT.

FLOODPLAIN NOTE

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT ARE LOCATED IN FEMA FLOOD ZONES A AND X PER THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 54097C0050D, DATED 09/29/2010.

ENVIRONMENTAL NOTES

A WETLAND DELINEATION WAS PERFORMED ON SEPTEMBER 26, 2012 AND OCTOBER 1, 2012, BY GREEN RIVERS TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE DECEMBER 6, 2012 REPORT FOR CENT 03 WAS PREPARED BY GREEN RIVERS. SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE REPORT DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WVDEP. IT IS STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION DESCRIBED BY THIS REPORT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

GEOTECHNICAL NOTES

A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY TRIAD ENGINEERING, INC. ON DECEMBER 17, 2012. THE REPORT PREPARED BY TRIAD ENGINEERING, INC. DATED JANUARY 3, 2013 REFLECTS THE RESULTS OF THE SUBSURFACE INVESTIGATION. PLEASE REFER TO THE SUBSURFACE INVESTIGATION REPORT BY TRIAD ENGINEERING, INC. FOR ADDITIONAL INFORMATION, AS NEEDED.

RESTRICTIONS NOTES

1. THERE ARE NO PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE PAD AND LOD. THERE ARE WETLANDS WITHIN 100 FEET OF THE PAD AND LOD, AND A WAIVER FROM THE WVDEP WILL BE APPLIED FOR THROUGH THE ARMY CORPS OF ENGINEERS.
2. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE PAD AND LOD.
3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE PAD AND LOD.
4. THERE ARE NO KNOWN EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELL(S) BEING DRILLED. GREENHORNE & O'MARA, NOW STANTEC IS NOT RESPONSIBLE FOR ANY EXISTING WATER WELL OR DEVELOPED SPRING DISCOVERED DURING CONSTRUCTION.
5. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE PAD.
6. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE PAD.

GRID NORTH AND ELEVATIONS SHOWN HEREON WERE ESTABLISHED BY SURVEY GRADE GPS



MISS Utility of West Virginia
 1-800-245-4848
 West Virginia State Law
 (Section XIV, Chapter 24-C)
 Requires that you call two
 business days before you dig in
 the state of West Virginia.
 IT'S THE LAW!

CENTURY QUADRANGLE
 WEST VIRGINIA
 7.5 MINUTE SERIES
 2000' 0' 2000'

API#9703847

CENT 03 SITE PLAN

CNX GAS COMPANY, LLC

(PROPOSED WELL NO. CENT 3AHS, CENT 3BHS, CENT 3CHS,
 CENT 3DHS, CENT 3EHS, CENT 3FHS)

**LOCATED WITHIN THE WATERSHED OF UNNAMED TRIBUTARIES TO PECKS RUN
 IN WARREN DISTRICT, UPSHUR COUNTY, WEST VIRGINIA**

Electronic Version of Plans Can Be Viewed at: [OIL GAS\SAY FILES\REVIEWS](#)

**APPROVED
 WVDEP OOG**
 SAY 7/11/2013

LIST OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	OVERALL PLAN SHEET INDEX
4-5	WELL PAD AND IMPOUNDMENT LAYOUT
6	WELL PAD ACCESS ROAD CROSS SECTIONS
7-8	ACCESS ROAD PROFILE AND SECTIONS
9-11	WELL PAD, ASSOCIATED IMPOUNDMENT, AND ACCESS ROAD RECLAMATION PLAN
12-13	STREAM CROSSING DETAILS
14-17	CONSTRUCTION DETAILS
18	CONSTRUCTION QUANTITIES

LEGEND	
<p>EX. INDEX CONTOUR EX. INTERMEDIATE CONTOUR EX. BOUNDARY LINE EX. EDGE OF ROAD PAVEMENT EX. GUARDRAIL EX. FENCELINE EX. GATE EX. OVERHEAD UTILITY EX. OVERHEAD UTILITY RW EX. UTILITY POLE EX. GUY WIRE EX. TELEPHONE LINE EX. GASLINE EX. GASLINE RW EX. WATERLINE EX. WATER WELL EX. GAS WELL EX. TREELINE EX. REFERENCE TREE EX. DELINEATED STREAM EX. DELINEATED WETLAND EX. BUILDING</p>	<p>PRDP. INDEX CONTOUR PRDP. INTERMEDIATE CONTOUR PRDP. CUT LINE PRDP. FILL LINE PRDP. LIMITS OF DISTURBANCE PRDP. WELL HEAD PRDP. CONTAINMENT BERM PRDP. PERIMETER SAFETY FENCE PRDP. ACCESS GATE WITH EMERGENCY LIFELINE PRDP. ORANGE SAFETY FENCE PRDP. ROAD CENTERLINE PRDP. FLAT BOTTOM DITCH WITH CHECK DAMS PRDP. CULVERT PRDP. RIP-RAP OUTLET PROTECTION PRDP. RIP-RAP INLET PROTECTION PRDP. CDMPT FILTERSOCK PRDP. ROCK CONSTRUCTION ENTRANCE X-SECTION GRID INDEX X-SECTION GRID INTERMEDIATE X-SECTION PROPOSED GRADE X-SECTION EXISTING GRADE</p>



THIS DOCUMENT WAS PREPARED BY STANTEC FOR CNX GAS COMPANY, LLC.

TITLE SHEET
CENT 03
 WARREN DISTRICT
 UPSHUR COUNTY, WV

<p>OPERATOR CNX GAS COMPANY, LLC OPERATOR ID: 494458046 P.O. BOX 1248 JANE LEW, WV 26378 PHONE: (304) 889-2009</p>	<p>ENGINEER STANTEC CONSULTING, INC. 111 ELKINS STREET FAIRMONT, WV 26554 PHONE: (304) 367-9401</p>	<p>SURVEYOR SMITH LAND SURVEYING, INC. PO BOX 150 226 WEST MAIN STREET GLENVILLE, WV 26351 PHONE: (304) 482-5634</p>
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DATE: 07/11/2013
 SCALE: AS SHOWN
 DESIGNED BY: JMR/RLH
 FILE NO.: SLS-7886
 SHEET 1 OF 18
 REV:

GROGGS DEBRA J GROGGS WILLIAM R	40 PECKS RUN RD	BUCKHANNON WV 26201 8407	472-3971
GROGGS O MICHAEL & PAMELA JO	42 PECKS RUN ROAD	BUCKHANNON WV 26201 8407	472-7683
GROGGS WILLIAM ROY & DEBRA J	40 PECKS RUN ROAD	BUCKHANNON WV 26201 8407	472-3971
HALL MARVIN M & JUDITH A	ROUTE 1 BOX 273 A	BUCKHANNON WV 26201 9729	472-3289
HARRIS GRACE A & GREGORY B	PO BOX 338	BUCKHANNON WV 26201 0338	*
HARRIS PHRONDA KARLA	RR 5 BOX 391	BUCKHANNON WV 26201 9114	*
HARRISON LACO D & EDITH J	3015 ROCK CAVE RD	CRAWFORD WV 26343 8132	*
HARVEY BENJAMIN T	RT 5 BOX 369	BUCKHANNON WV 26201 9114	472-7894
HEASTON UNITED METHODIST CHURCH	5277 CLARKSBURG RD	BUCKHANNON WV 26201 8455	*
HEATER ANDY L & KAREN M	ROUTE 1 BOX 90	VOLGA WV 26238 9140	*
HELTON RUSSELL W	ROUTE 5 BOX 198	BUCKHANNON WV 26201 9113	472-0981
HINER ROBERT L & DELMA G	ROUTE 5 BOX 376	BUCKHANNON WV 26201 9114	472-7323
HODGES JAMES & TINA	ROUTE 5 BOX 398-F	BUCKHANNON WV 26201 9118	*
HODGES JUDSON J	80 SHUMAKER	BUCKHANNON WV 26201 8405	304-472-0826
HODGESVILLE PUBLIC SERVICE D5T	188 FAYETTE STREET	BUCKHANNON WV 26201 2352	472-1904
HOLT KENNETH W & KATHY J	ROUTE 1 BOX 300 A	BUCKHANNON WV 26201 9770	304-472-8153
HOMMES FRANK I & VICKI J	RT 5 BOX 355	BUCKHANNON WV 26201 9141	473-0825
HORSTMAN ERNESTINE M HORSTMAN ROBERT T	RR 1 BOX 304	BUCKHANNON WV 26201 9770	304-472-7675
HULCHER IRENE N & ALBERT H III	RT 1 BOX 296	BUCKHANNON WV 26201	*
HULCHER JOANNA A	ROUTE 1 BOX 212	BUCKHANNON WV 26201 9724	472-9476
HUMPHREY JOHN C	P O BOX 1040	BUCKHANNON WV 26201 1040	*
HURT DON O & JUNE M	RT 5 BOX 367	BUCKHANNON WV 26201	472-3118
JIANG HUADE WEI LIYA	RT 10 BOX 16	BUCKHANNON WV 26201 8804	472-1888
JOHNSON JAMES W & MILDRED H	ROUTE 5 BOX 198-A	BUCKHANNON WV 26201 9113	472-6919
JOHNSON JEFFREY SCOTT JOHNSON JODY LYNN	RR 5 BOX 197-C	BUCKHANNON WV 26201 9110	*
JORDAN ERMA	P O BOX 3	BUCKHANNON WV 26201 0003	472-4445
KARICKHOFF BRYAN J	ROUTE 5 BDX 359	BUCKHANNON WV 26201 9114	472-6498
KARICKHOFF DALE & MARY	RUTE 5 BOX 362	BUCKHANNON WV 26201 9114	472-3721
KARICKHOFF DALE L	RR 5 BOX 362	BUCKHANNON WV 26201	472-3721
KARICKHOFF KERMIT A	ROUTE 1 BOX 210	BUCKHANNON WV 26201 9724	472-3291
KELLY JOYCE C & OLIVER L	ROUTE 1 BOX 229 A	BUCKHANNON WV 26201 9725	472-2622
KESLING REBECCA ANN	ROUTE 5 BOX 198-E	BUCKHANNON WV 26201 9113	472-5280
KIMBLE COLLETTE D & JAMES A	ROUTE 5 BOX 198BA2	BUCKHANNON WV 26201 9113	472-8699
KIRCHBERG MARCIE W & RANDALL M	ROUTE 5 BOX 196	BUCKHANNON WV 26201 9108	473-0354
KNABENSHUE EVELYN IDA	ROUTE 5 BOX 361	BUCKHANNON WV 26201 9114	*
KNABENSHUE TIMOTHY K & KAREN L	ROUTE 5 BOX 384	BUCKHANNON WV 26201 9114	472-8372
KNICELY GAILENE KNICELY TERENCE	RT 5 BOX 371	BUCKHANNON WV 26201 9114	472-7994
KNICELY JAMES & DOROTHY	ROUTE 5 BOX 511	BUCKHANNON WV 26201 9119	472-5658
LANDIS ADDIE LOU LANDIS CHARLES THOMAS	RT 5 BOX 395-D	BUCKHANNON WV 26201 9116	472-5126
LANTZ MICHAEL & LINDA	6 FISHING CAMP RD	BUCKHANNON WV 26201	473-1963
LAROSA JOSEPH LAROSA DOMINICK	PO BOX 219	COALTON WV 26257 0219	301-469-8070, 301-365-3060
LINGER KYLE & MARILYN	ROUTE 5 BOX 195	BUCKHANNON WV 26201 9108	472-5093
LOCKWOOD JOHN B LOCKWOOD NANCY L	RT 5 BOX 395-C	BUCKHANNON WV 26201 9116	472-2625
LONG HUNTER RAY LONG ROCHELLE G	RR 1 BOX 293	BUCKHANNON WV 26201 9770	*
LOVE JOHN W & LINDA J	ROUTE 5 BOX 395	BUCKHANNON WV 26201 9116	472-5384
LOWTHER JAMES LOWTHER KIM	RT 5 BOX 197-B	BUCKHANNON WV 26201 9110	*
MARPLE ARVEDA K & RICHARD A	RT 1 BOX 152	BUCKHANNON WV 26201	*
MARSH DANNY J	RT 5 BOX 395-J	BUCKHANNON WV 26201 9116	*
MARTENEY LINDA SUE ROHR	7 GILBERT ST	BUCKHANNON WV 26201 2012	*
MCCARTNEY GEORGE C MCCARTNEY ANGELA J	RT 5 BOX 389	BUCKHANNON WV 26201 9114	472-4389
MCCAULEY DANIEL K	ROUTE 5 BOX 385	BUCKHANNON WV 26201 9114	*
MCDANIELS DENNIS LYLE	ROUTE 5 BOX 198-B3	BUCKHANNON WV 26201 9113	*
MCHENRY DANIEL C & KATHIE L	ROUTE 1 BOX 216-B	BUCKHANNON WV 26201 9725	472-9631
MCKINNEY HAYWARD & MADELINE	RDUTE 1 BOX 290 E	BUCKHANNON WV 26201 9770	*
MCLAIN CHARLES & IRIS	ROUTE 5 BOX 396	BUCKHANNON WV 26201 9117	*
MILLER BARRY W & SUSAN A	ROUTE 5 BOX 198 G	BUCKHANNON WV 26201 9113	472-8566
MILLER SUSAN MILLER VIRGIL D	RT 5 BOX 196A	BUCKHANNON WV 26201 9110	472-7447
MILLER WILLARD MARK	ROUTE 5 BOX 361 A	BUCKHANNON WV 26201 9114	*
MOORE ANTHONY W	ROUTE 1 BOX 212 A	BUCKHANNON WV 26201 9724	472-0864
MOORE BRENDA S MOORE R R	RT 1 BOX 212M	BUCKHANNON WV 26201 9724	472-4730
MODRE CHERYL L MOORE GERALD A	RT 1 BOX 214 E	BUCKHANNON WV 26201 9724	472-3835
MOORE GERALDINE B	ROUTE 1 BOX 212 A	BUCKHANNON WV 26201 9724	472-0864
MOORE KENNETH	ROUTE 1 BOX 212 A	BUCKHANNON WV 26201 9724	472-0864
MOORE MICHAEL & MICHELLE	RR 5 BOX 198C	BUCKHANNON WV 26201 9113	472-7375
MOORE RANDALL E	RT 1 BOX 212-M	BUCKHANNON WV 26201 9724	472-4730
NEWMAN LIONEL R NEWMAN TONI C	RT 5 BOX 197	BUCKHANNON WV 26201 2620	*
NICHOLSON ROBERT FRANKLIN JR NICHOLSON LUANN	ROUTE 1 BOX 225	BUCKHANNON WV 26201 9725	*
NORMAN BARBARA J	ROUTE 5 BOX 380	BUCKHANNON WV 26201 9114	472-7451
PAYNE PHILIP MARK	RR 5 BOX 198-B1A	BUCKHANNON WV 26201 9113	*
PAYNE TODD F & TRACI K	ROUTE 5 BOX 197-A	BUCKHANNON WV 26201 9110	472-1817, cell 677-8010

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 10

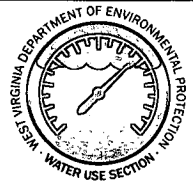
PERRY DANNY F & DEBRA D	ROUTE 5 BOX 198D	BUCKHANNON WV 26201 9113	472-8057
PHILLIPS AUTRY W & GRACE E	ROUTE 5 BOX 390	BUCKHANNON WV 26201 9114	472-7004
PHILLIPS LARRY R & HELEN R	ROUTE 5 BOX 394	BUCKHANNON WV 26201 9114	*
PLUMMER ROBY W & DONNA J	9607 MASON AVE	BALTIMORE MD 21234 2110	*
POWERS DATHA DIANE	RT 5 BOX 198-B-1	BUCKHANNON WV 26201 9113	*
PRIMOVERO RICK & CYNTHIA	ROUTE 1 BOX 290 C	BUCKHANNON WV 26201 9770	*
QUEEN BENJAMIN T & BETTY A	ROUTE 5 BOX 307	BUCKHANNON WV 26201 9150	472-2546
QUEEN LEO GENE & NAOMI D	ROUTE 1 BOX 273-2	BUCKHANNON WV 26201 9729	472-4871
RICE CLARENCE ARTHUR RICE VONDA JO	ROUTE 1 BOX 288	BUCKHANNON WV 26201 9770	*
RICE DONALD W & EVA V	RT 1 BOX 287	BUCKHANNON WV 26201 9770	472-6501
RICE MARTHA JEAN	ROUTE 1 BOX 286	BUCKHANNON WV 26201 9770	*
RICHARDS LINDA & PHILLIP	RR 5 BOX 398-E	BUCKHANNON WV 26201	473-0286
ROBINSON CECIL & TRUDIE	RT 1 BOX 290D	BUCKHANNON WV 26201 9770	*
ROESSING GEORGE	P O BOX 47	BUCKHANNON WV 26201 0047	*
ROHR JAMES L II	RR 1 BOX 232	FRENCH CREEK WV 26218 9759	*
RUSSELL PAUL J	56 PECKS RUN ROAD	BUCKHANNON WV 26201 8407	*
SANDRETH HOLLY J TENNEY JASON M	HC 31 BOX 159	BUCKHANNON WV 26201 8705	472-1162
SHAVER ROD E & ROSA L	ROUTE 5 BOX 190-A	BUCKHANNON WV 26201 9108	*
SINCLAIR BRYAN	36 PECKS RUN ROAD	BUCKHANNON WV 26201 8407	473-1915
SINCLAIR DELORES J & WILLIAM K	ROUTE 5 BOX 395-E	BUCKHANNON WV 26201 9116	472-0088
SINCLAIR LUELLA J SINCLAIR WALTER V	35 PECKS RUN RD	BUCKHANNON WV 26201 8407	472-5402
SMARR TINA M & WILLIAM H	6493 ASHBY GROVE LOOP	HAYMARKET VA 20169	*
SMITH DOROTHY	RR 5 BOX 198-B	BUCKHANNON WV 26201 9113	*
SMITH GARFIELD A & HELEN S	ROUTE 1 BOX 214-B-1	BUCKHANNON WV 26201 9724	*
SMITH RICHARD E & ELLEN	27 PECKS RUN ROAD	BUCKHANNON WV 26201 8407	472-2614
SNYDER ANTONIA RAE SNYDER KEVIN JAMES			473-1969
SOLES FLORINDA	ROUTE 5 BOX 198-B-C	BUCKHANNON WV 26201 9113	473-1964
STARKEY TIP & DEBBIE	ROUTE 3 BOX 339-16	BUCKHANNON WV 26201 9454	472-2842
STERNEMAN PAUL F STERNEMAN TRUEY J	RT 1 BOX 211-A	BUCKHANNON WV 26201 9724	472-3984
STRADER BETTY CRAVEN	ROUTE 1 BOX 275	BUCKHANNON WV 26201 9729	472-8263
STRAWDER JACQUELINE SUE STRAWDER PAUL E	RR 5 BOX 355-1	BUCKHANNON WV 26201 9131	472-3073
STREETS JACK STREETS SARAH	RT 1 BOX 299	BUCKHANNON WV 26201 9770	*
TAYLOR HARRY E & BETTY	ROUTE 5 BOX 378 C	BUCKHANNON WV 26201 9114	472-7326
TRIPLETT ROBIN QUEEN	P O BOX 1011	BUCKHANNON WV 26201 1011	472-0981
TRIPLETT RYAN M & AMANDA D	RR 5 BOX 395-H	BUCKHANNON WV 26201 9116	*
TRSTS HEASTON UNITED METHODIST	7 LATHAM STREET	BUCKHANNON WV 26201 2726	472-4765
TRSTS WARREN DISTRICT COMMUNITY BLDG			472-7060
TYJORD LLC	43 TURKEY RUN RD	BUCKHANNON WV 26201 8409	*
UNIVERSAL COAL CORP	P O BOX 247	BUCKHANNON WV 26201 0247	472-3350
VRANA SANDRA M	ROUTE 5 BOX 393	BUCKHANNON WV 26201 9114	472-2397
WARD PHILLIP PAUL	90 SHUMAKER ROAD	BUCKHANNON WV 26201 8405	472-7155
WARD WILLIAM R	2 FISHING CAMP ROAD	BUCKHANNON WV 26201 8406	460-2002
WARE GUY W & BARBARA J	RT 9 BOX 341	BUCKHANNON WV 26201 8511	472-7257
WARNER ROBERT W & KRISTINA D	ROUTE 1 BOX 292	BUCKHANNON WV 26201 9770	*
WAYBRIGHT CARL R & CHARLOTTE A	RT 1 BOX 300-B	BUCKHANNON WV 26201 9770	472-5716
WEST BILLI R & LARRY S	ROUTE 5 BOX 196-2	BUCKHANNON WV 26201 9110	*
WEST RUSSELL A JR & WANDA L	ROUTE 5 BOX 375	BUCKHANNON WV 26201 9114	472-6307
WILSON DEBORAH	RT 1 BOX 150-A	VOLGA WV 26238	*
WILT JANET L	RT 5 BOX 398-D	BUCKHANNON WV 26201	*
WINANS ROBERT L & JENNIFER L	ROUTE 5 BOX 368	BUCKHANNON WV 26201 9114	*
WINTERS DONNA R WINTERS RODNEY W	61 PECKS RUN RD	BUCKHANNON WV 26201 8407	304-472-2317
WINTERS GREGORY A WINTERS ROXANNE SHARA	RR 5 BOX 198-A-B1	BUCKHANNON WV 26201 9113	*
WOOD KENNETH O & EDNA M	ROUTE 5 BOX 381	BUCKHANNON WV 26201 9114	472-6699
WRIGHT MABEL L & VINCENT T	ROUTE 5 BOX 378	BUCKHANNON WV 26201 9114	472-1783
WRIGHT ROBERT L & GAY A	ROUTE 5 BOX 377	BUCKHANNON WV 26201 9114	472-5732
WRIGHT ROBERT L JR & TAMERA JO	ROUTE 1 BOX 300 C	BUCKHANNON WV 26201 9770	472-2989
XANDER DENNIS & NICK PERPERAS	ROUTE 5 BOX 560	BUCKHANNON WV 26201 9126	457-1193
ZICKEFOOSE BRIAN L ZICKEFOOSE DEBRA R	RT 1 BOX 211	BUCKHANNON WV 26201 9724	472-0610
ZICKEFOOSE ROGER L & BARBARA A	ROUTE 5 BOX 198	BUCKHANNON WV 26201 9113	472-3635
ZIRKLE ARNOLD J & GAYLE S	ROUTE 1 BOX 302	BUCKHANNON WV 26201 9770	*
	RT 10 BOX 406	BUCKHANNON WV 26201 9470	*

FEB 04 2013

west virginia department of environmental protection



Water Management Plan: Primary Water Sources



WMP-01090

API/ID Number: 047-097-03847

Operator:

Consol Energy - WV

CENT3AHS

Important:

For each proposed primary water source (including source intakes for purchased water sources) identified in your water management plan, and summarized herein, DEP has made an evaluation concerning water availability over the specified date range. DEP's assessment is based on the following considerations:

- Statistical analysis of historical USGS stream gauge data (transferred to un-gauged locations as necessary);
- Identification of sensitive aquatic life (endangered species, mussels, etc.);
- Quantification of known existing demands on the water supply (Large Quantity Users);
- Minimum flows required by the Army Corps of Engineers; and
- Designated stream uses.

Based on these factors, DEP has provided, for each intake location (and origination point for purchased water), a reference gauge location and discharge flow reading which must be surpassed prior to withdrawals. Additionally, DEP has established a minimum passby flow at the withdrawal location which must also be surpassed prior to withdrawals. These thresholds are considered terms of the permit and are enforceable as such.

DEP is aware that some intake points will be used for multiple wells and well sites. In these cases, the thresholds set by the Water Management Plan are to be interpreted as total withdrawal limits for each location over the specified date range regardless of how many wells are supported by that intake.

For all purchased water intakes, determinations of water availability are made at the original source intake location. It is the responsibility of the Oil and Gas Operator, not the seller, to cease withdrawal of water from the seller when flows are less than the minimum gauge reading at the stream gauge referenced by the Water Management Plan in order to protect stream uses.

Note that the determinations made herein are based on the best available data, but it is impossible to predict water availability in the future. While the DEP has carefully established these minimum withdrawal thresholds, it remains the operator's responsibility to protect aquatic life at all times. Approval to withdrawal is contingent upon permission from the land owner. It is the responsibility of the operator to secure and maintain permission prior to any withdrawals.

The operator is reminded that 24-48 hours prior to withdrawing (or purchasing) water, DEP must be notified by email at DEP.water.use@wv.gov.

MODIFICATION Effective: 11/18/2013

APPROVED NOV 18 2013

Source Summary

MODIFICATION

Effective: 11/18/2013

WMP- 01090

API Number:

047-097-03847

Operator:

Consol Energy - WV

CENT3AHS

Stream/River

o Source **Tygart Valley River** Barbour Owner: **Consol Energy**

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
8/1/2013 8/1/2014 11,089,400 39.190421 -80.017423

Regulated Stream? Ref. Gauge ID: 3054500 TYGART VALLEY RIVER AT PHILIPPI, WV

Max. Pump rate (gpm): **1,470** Min. Gauge Reading (cfs): **355.01** Min. Passby (cfs) **344.41**

DEP Comments:

o Source **Buckhannon River** Upshur Owner: **Consol Energy**

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
8/1/2013 8/1/2014 11,089,400 38.803115 -80.206603

Regulated Stream? Ref. Gauge ID: 3052120 Buckhannon River at Alton WV

Max. Pump rate (gpm): **1,470** Min. Gauge Reading (cfs): **46.28** Min. Passby (cfs) **42.14**

DEP Comments:

Source Summary

MODIFICATION

Effective: 11/18/2013

WMP-01090

API Number:

047-097-03847

Operator:

Consol Energy - WV

CENT3AHS

Ground Water

o Source **PHL1 Groundwater Well** Barbour Owner: **Consol Energy**

Start Date End Date Total Volume (gal) Max. daily purchase (gal) Intake Latitude: Intake Longitude:
8/1/2013 8/1/2014 11,089,400 39.191287 -80.019039

Regulated Stream? Ref. Gauge ID: 9999994 TYGART VALLEY RIVER AT PHILIPPI, WV

Max. Pump rate (gpm): 900 Min. Gauge Reading (cfs): 113.00 Min. Passby (cfs) 113.00

DEP Comments: Refer to USGS Stream Gauging Station 03054500

Source Detail

MODIFICATION

Effective: 11/18/2013

WMP- 01090

API/ID Number: 047-097-03847

Operator:

Consol Energy - WV

CENT3AHS

Source ID: 28624

Source Name: PHL1 Groundwater Well
Consol Energy

Source Latitude: 39.191287

Source Longitude: -80.019039

HUC-8 Code: 5020001

Drainage Area (sq. mi.): 931.43 County: Barbour

Anticipated withdrawal start date: 8/1/2013

Anticipated withdrawal end date: 8/1/2014

Total Volume from Source (gal): 11,089,400

Max. Pump rate (gpm): 900

Max. Simultaneous Trucks:

Max. Truck pump rate (gpm):

- Endangered Species?
- Trout Stream?
- Regulated Stream?
- Proximate PSD?
- Gauged Stream?
- Mussel Stream?
- Tier 3?

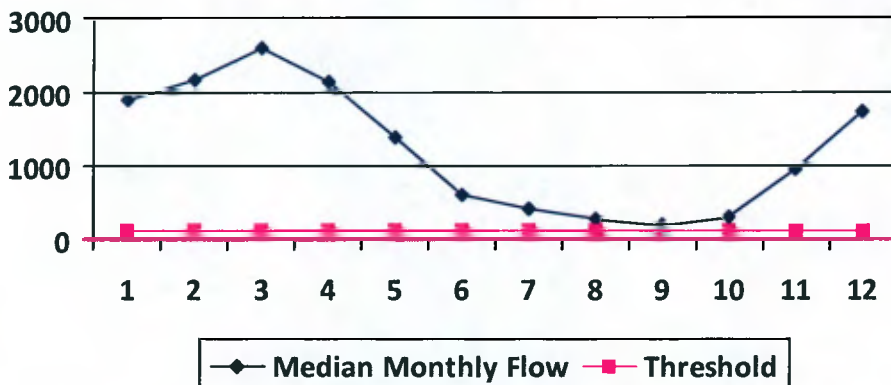
Reference Gaug: 9999994 TYGART VALLEY RIVER AT PHILIPPI, WV

Drainage Area (sq. mi.): 914.00

Gauge Threshold (cfs): 111

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	1,901.06	115.12	1,786.94
2	2,155.51	115.12	2,041.39
3	2,600.93	115.12	2,486.81
4	2,132.23	115.12	2,018.12
5	1,375.48	115.12	1,261.37
6	586.10	115.12	471.99
7	402.01	115.12	287.89
8	280.57	115.12	166.46
9	177.42	115.12	63.30
10	286.75	115.12	172.64
11	950.89	115.12	836.78
12	1,738.34	115.12	1,624.22

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 113.12

Upstream Demand (cfs): 0.00

Downstream Demand (cfs): 0.00

Pump rate (cfs): 2.01

Headwater Safety (cfs): 0.00

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): 113.01

Passby at Location (cfs): 113.12

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

MODIFICATION

Effective: 11/18/2013

WMP- 01090

API/ID Number: 047-097-03847

Operator:

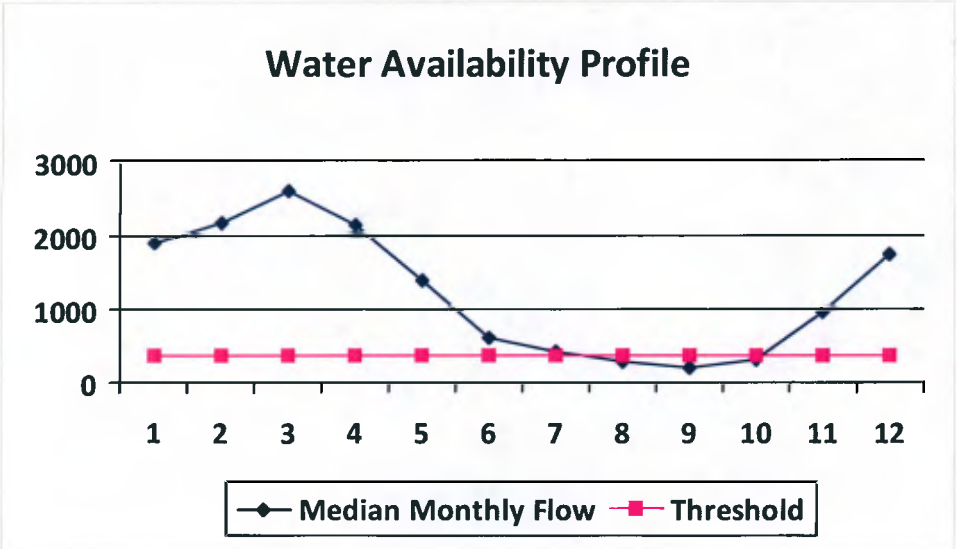
Consol Energy - WV

CENT3AHS

Source ID: 28622 Source Name: Tygart Valley River Source Latitude: 39.190421
 Consol Energy Source Longitude: -80.017423
 HUC-8 Code: 5020001
 Drainage Area (sq. mi.): 931.43 County: Barbour
 Anticipated withdrawal start date: 8/1/2013
 Anticipated withdrawal end date: 8/1/2014
 Total Volume from Source (gal): 11,089,400
 Max. Pump rate (gpm): 1,470
 Endangered Species? Mussel Stream?
 Trout Stream? Tier 3?
 Regulated Stream?
 Proximate PSD? Taylor County PSD
 Gauged Stream?
 Max. Simultaneous Trucks: 0
 Max. Truck pump rate (gpm):

Reference Gaug: 3054500 TYGART VALLEY RIVER AT PHILIPPI, WV
 Drainage Area (sq. mi.): 914.00 Gauge Threshold (cfs): 341

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	1,901.06	361.51	1,542.64
2	2,155.51	361.51	1,797.09
3	2,600.93	361.51	2,242.51
4	2,132.23	361.51	1,773.82
5	1,375.48	361.51	1,017.07
6	586.10	361.51	227.69
7	402.01	361.51	43.59
8	280.57	361.51	-77.84
9	177.42	361.51	-181.00
10	286.75	361.51	-71.66
11	950.89	361.51	592.48
12	1,738.34	361.51	1,379.92



Water Availability Assessment of Location

Base Threshold (cfs): 347.50
 Upstream Demand (cfs): 10.73
 Downstream Demand (cfs): 0.00
 Pump rate (cfs): 3.28
 Headwater Safety (cfs): 0.00
 Ungauged Stream Safety (cfs): 0.00
 Min. Gauge Reading (cfs): 355.01
 Passby at Location (cfs): 347.50

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

MODIFICATION

Effective: 11/18/2013

WMP- 01090

API/ID Number: 047-097-03847

Operator:

Consol Energy - WV

CENT3AHS

Source ID: 28623 Source Name: Buckhannon River
 Consol Energy Source Latitude: 38.803115
 Source Longitude: -80.206603

HUC-8 Code: 5020001

Drainage Area (sq. mi.): 93.62 County: Upshur

Anticipated withdrawal start date: 8/1/2013
 Anticipated withdrawal end date: 8/1/2014
 Total Volume from Source (gal): 11,089,400
 Max. Pump rate (gpm): 1,470
 Max. Simultaneous Trucks: 0
 Max. Truck pump rate (gpm):

Endangered Species? Mussel Stream?
 Trout Stream? Tier 3?
 Regulated Stream?
 Proximate PSD?
 Gauged Stream?

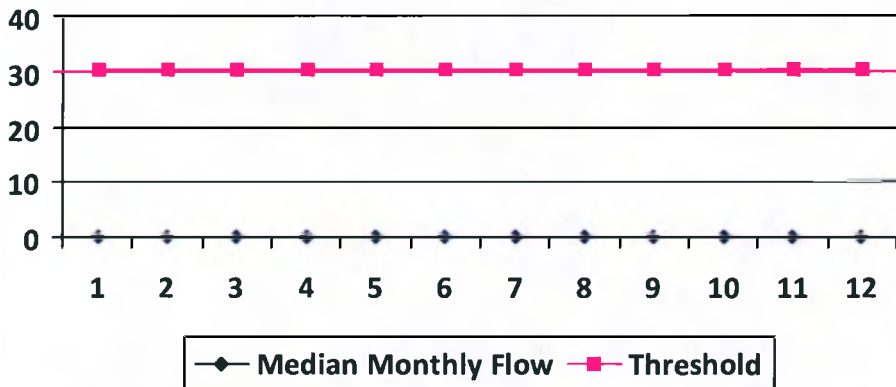
Reference Gaug 3052120 Buckhannon River at Alton WV

Drainage Area (sq. mi.) 94.70

Gauge Threshold (cfs): 30.5

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	0.00	33.43	-
2	0.00	33.43	-
3	0.00	33.43	-
4	0.00	33.43	-
5	0.00	33.43	-
6	0.00	33.43	-
7	0.00	33.43	-
8	0.00	33.43	-
9	0.00	33.43	-
10	0.00	33.43	-
11	0.00	33.43	-
12	0.00	33.43	-

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 30.15
 Upstream Demand (cfs): 0.00
 Downstream Demand (cfs): 0.00
 Pump rate (cfs): 3.28
 Headwater Safety (cfs): 0.00
 Ungauged Stream Safety (cfs): 0.00

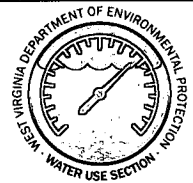
Min. Gauge Reading (cfs): 33.78
 Passby at Location (cfs): 30.15

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

west virginia department of environmental protection



Water Management Plan: Secondary Water Sources



WMP-01090

API/ID Number 047-097-03847

Operator: Consol Energy - WV

CENT3AHS

MODIFICATION

Effective: 11/18/2013

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Multi-site impoundment

Source ID:	28626	Source Name	Warder North Impoundment	Source start date:	8/1/2013
				Source end date:	8/1/2014
Source Lat:	39.192505	Source Long:	-80.025198	County	Barbour
Max. Daily Purchase (gal)		Total Volume from Source (gal):	11,089,400		
DEP Comments:					

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-189

WMP-01090

API/ID Number 047-097-03847

Operator: Consol Energy - WV

CENT3AHS

MODIFICATION

Effective: 11/18/2013

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Source ID: 28627 Source Name: Warder South Impoundment Source start date: 8/1/2013
 Source end date: 8/1/2014
 Source Lat: 39.19097 Source Long: -80.025198 County: Barbour
 Max. Daily Purchase (gal): Total Volume from Source (gal): 11,089,400
 DEP Comments:

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-190

Source ID: 28630 Source Name: PHL28 Tank Pad Source start date: 8/1/2013
 Source end date: 8/1/2014
 Source Lat: 39.201747 Source Long: -80.034491 County: Barbour
 Max. Daily Purchase (gal): Total Volume from Source (gal): 11,089,400
 DEP Comments:

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-1332

WMP-01090

API/ID Number 047-097-03847

Operator: Consol Energy - WV

CENT3AHS

MODIFICATION

Effective: 11/18/2013

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Recycled Frac Water

Source ID: 28625 Source Name Various
Commercial Supplier Source start date: 8/1/2013
Source end date: 8/1/2014

Source Lat: 39.5088 Source Long: -80.126418 County Marion

Max. Daily Purchase (gal) Total Volume from Source (gal): 11,089,400

DEP Comments:

Source ID: 28631 Source Name Source start date: 8/1/2013
Source end date: 8/1/2014

Source Lat: 39.219211 Source Long: -80.018059 County Barbour

Max. Daily Purchase (gal) Total Volume from Source (gal): 11,089,400

DEP Comments:

WMP-01090

API/ID Number 047-097-03847

Operator: Consol Energy - WV

CENT3AHS

MODIFICATION

Effective: 11/18/2013

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Source ID:	28632	Source Name:	Various	Source start date:	8/1/2013
				Source end date:	8/1/2014
Source Lat:		Source Long:		County:	
Max. Daily Purchase (gal)		Total Volume from Source (gal):	11,089,400		
DEP Comments:	Sources include, but are not limited to: PHL4 and PHL13 well pads.				



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

**WATER MANAGEMENT PLAN/
WATER ADDENDUM**

For Horizontal Oil and Gas Well Permits

Office of Oil and Gas
Phone: (304) 926-0450

DEP Office Use only	
Date Received by Oil & Gas:	
Administratively Complete - Oil & Gas:	Yes <input type="checkbox"/> No <input type="checkbox"/>
Date Received by Water Use:	
Complete - Water Use:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>JH</i>

Section I - Operator Information

API: 47-097 - 03847 Modification #2
County Permit

Operator Name: CNX Gas Company, LLC	
Operator ID: 494458046	*Registered in the Frac Water Reporting Website? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Mailing Address: CONSOL ENERGY PO Box 1248 Jane Lew, WV 26378	Contact Name/ Title (Water Resources Manager): Amanda Langford Supervisor of Permitting – WV Region
Contact Phone: 304-884-2009	Contact Email: amandalangford@consolenergy.com

Received

OCT 25 2013

WVDEP
Water Use Section

*If no, the operator will be required to register with the WVDEP Water Use Section; contact dep.water.use@wv.gov

Section II - Well Overview

Operator's Well Number: CENT3AHS			
Anticipated Frac Date: 08/01/13	Location (decimal degrees, NAD 83)		
	Latitude: N 4,323,401	Longitude: E 570,524	County: Upshur

Section III - Source Water Overview (check all that apply)

Streams/Rivers <input checked="" type="checkbox"/>	Lakes/Reservoirs <input type="checkbox"/>	Ground Water <input checked="" type="checkbox"/>	Purchased Water (PSD) <input type="checkbox"/>
Purchased Water (private) <input checked="" type="checkbox"/>	Recycled Frac Water <input checked="" type="checkbox"/>	Multi-Site Impoundment <input checked="" type="checkbox"/>	
Other (describe) :			
Total anticipated water volume to be used (gal): 11,089,400 (CENT3HS pad to total 70,351,400)			

Section III (a) - Surface Water Source (to be completed for each surface water withdrawal location print additional pages as necessary)

Source Name: Tygart Valley River		
Location (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378		Phone: 304-884-2000
Obtained Landowner Permission? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Proposed Withdrawal Details

Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 29.4 million gal	Max. Pump Rate (gpm): 1470
No. of Pump Trucks: NA - pipeline	Max. Pump Rate per Truck (gpm): NA	No. Trucks Simultaneously Pumping: NA	

Determination that sufficient flow is available downstream from proposed intake point

Allow passby to be calculated by the DEP (Preferred)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(If no, advance written authorization by DEP is required. Attach authorization and details.)

Section III (a) - Surface Water Source (to be completed for each surface water withdrawal location print additional pages as necessary)

Source Name: Buckhannon River		
Location (decimal degrees, NAD 83)		
Latitude: N 39.023344	Longitude: W -80.167812	County: Uphsur
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378		Phone: 304-884-2000
Obtained Landowner Permission? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Proposed Withdrawal Details

Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 29.4 million gal	Max. Pump Rate (gpm): 1680
No. of Pump Trucks: NA - pipeline	Max. Pump Rate per Truck (gpm): NA	No. Trucks Simultaneously Pumping: NA	

Determination that sufficient flow is available downstream from proposed intake point

Allow passby to be calculated by the DEP (Preferred)? Yes No

(If no, advance written authorization by DEP is required. Attach authorization and details.)

Aquatic Life Protection

Describe Entertainment and Impingement Prevention Plan: Please See Attachment A

Describe Invasive Species Transfer Prevention Plan: Please See Attachment B

Stream details

DEP Office Use Only			
Contact Recreation <input type="checkbox"/>	Aquatic Life-Trout Water <input type="checkbox"/>	Aquatic Life-Warm Water <input type="checkbox"/>	Drinking Water Supply <input type="checkbox"/>
Industrial <input type="checkbox"/>	Agriculture <input type="checkbox"/>	Irrigation <input type="checkbox"/>	Reference Gauge <input type="checkbox"/>
Gauged Stream <input type="checkbox"/>	Stream Final Code	Regulated by	
Trout? <input type="checkbox"/>	Sensitive Aquatic Species? <input type="checkbox"/>	Tier 3 Stream? <input type="checkbox"/>	Within 1 mile upstream of a PSD? Yes <input type="checkbox"/> No <input type="checkbox"/>
Mussels? <input type="checkbox"/>	Upstream Drainage Area?		

Section III(b) - Ground Water Source (to be completed for each groundwater withdrawal location print additional pages as necessary)

Well Permit #: N/A	Well name: PHL1 Water Well	
Location (decimal degrees, NAD 83)		
Latitude: 4338455.685 m	Longitude: 584720.300 m	County: Barbour
Aquifer: (if known)		
Landowner name and address: CNX Gas Company LLC	Phone: 304-884-2000	
Obtained Landowner Permission? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input checked="" type="checkbox"/> * New well (Drill Date): 6/25/13 <input type="checkbox"/> Existing Well	

If drilling a new well, please submit well logs to DEP's Water Use Section, Wells must be drilled and plugged in accordance with DHHR regulations

Total Depth: 305'	Type of Casing: Steel	Casing Diameter: 20"	Screen Interval: Open Rock Bore	Screen Size: 90'-300'
Static Water Elevation: 1281.98	Top of Casing Elevation: 1326.37	Surface Elevation: 1323.31	Type of Well Cap: 22" custom discharge head	
Withdrawal Details				
Start Date:	End Date:	Total Withdrawal from Source	Max. Pump Rate (gpm):	

09/01/13	09/01/14	(gal):	700 up to 900 gpm
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Analysis of potential groundwater impacts

Static Water Level Prior to Test: <u>41.33</u>	Feet below grade
Drawdown (Water Level/Elevation During Pump Test): <u>6.34</u>	Feet
Duration of Pump Test: <u>9.5</u>	Hours
Gallons Per Minute During Pump Test: <u>482</u>	Gpm
Time to Return to Static Water Level After Pump Test: <u>24.3 (90%)</u>	Hours

Section III (c) - Purchased Water Source (to be completed for each water supplier, print additional pages as necessary)

Supplier Name and Contact Information: Fairmont Brine Processing Jeff Van der Weele 724-640-8295 John Mandarino 412-400-2530 168 AFR Drive Fairmont, WV 26554			
Location (decimal degrees, NAD 83)			
Latitude:		Longitude:	
		County: Marion	
Public Water Provider <input type="checkbox"/>		Waste Water Treatment Plant <input checked="" type="checkbox"/>	
		Industrial (intake locations must be provided) <input type="checkbox"/>	
Commercial Supplier (intake locations must be provided) <input type="checkbox"/>		Private (intake locations must be provided) <input type="checkbox"/>	
Start Date: 09/01/13	End Date: 09/01/14	Total Purchase from Source (gal):	Max. Daily Purchase (gal):
Supplier intake details:			

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Section III (d) – Lake/Reservoir Water Source (to be completed for each lake/reservoir)

Lake/Reservoir Name: NA			
Location (decimal degrees, NAD 83)			
Latitude:	Longitude:	County:	
Landowner name and address:			
Permission to withdraw obtained from owner:		Minimum release (cfs):	
Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Withdrawal Details			
Start Date:	End Date:	Total Withdrawal from Source (gal):	Max. Pump Rate (gal):

Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: PHL28 Tank Site			
Referenced WMP#: NPDES Permit # WV0115924			
Location (decimal degrees, NAD83)			
Latitude: N 39-12-06.29	Longitude: W 80-02-04.17	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner:		Intake Type:	
Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Permanent Structure <input checked="" type="checkbox"/>	Or Temporary Structure <input type="checkbox"/>
Withdrawal Details from Impoundment to well-site			
Start Date:	End Date: 9/01/14	Total Withdrawal from Source (gal): 6 million	

Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: Warder North Impoundment			
Referenced WMP#: 00189			
Location (decimal degrees, NAD83)			
Latitude: N 39.1925051	Longitude: W 80.0251983	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 3,696,000	

Impoundment filling details - source		
Source Name: Tygart Valley River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour

Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: Warder South Impoundment			
Referenced WMP#: 00190			
Location (decimal degrees, NAD83)			
Latitude: N 39.1910970	Longitude: W 80.0251983	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 3,570,000	

Impoundment filling details - source		
Source Name: Tygart Valley River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour

Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: PHL13 Flowback Pit			
Referenced WMP#: N/A API: 047-001-03220			
Location (decimal degrees, NAD83)			
Latitude: 39.219211094	Longitude: 80.018059809	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 1.8 million	

Impoundment filling details - source		
Source Name: Buckhannon River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 38.803115	Longitude: W 80.206603	County: Upshur

Section III (f) - Reused Frac Water (to be completed for each source, print additional pages as necessary)

API # of Previous Well (where water was obtained from):	Total withdrawal from source (gal):
PHL 4 Pad:	50,000
PHL4AHS 047-001-03247	
PHL4BHS 047-001-03248	
PHL4CHS 047-001-03249	
PHL13 Pad:	100,000
PHL13AHS 047-001-03220	
PHL13BHS 047-001-03221	
PHL13CHS 047-001-03222	
PHL13DHS 047-001-03223	
PHL13EHS 047-001-03238	
PHL13FHS 047-001-03239	
33306 - Marcellus 47-001-02985	2 to 5 bbl per day
33914 - Marcellus 47-001-03072	1 to 3 bbl per day
33094 - CBM 47-001-02795	2 to 3 bbl per day
14124 - CBM 47-001-02904	3 to 4 bbl per day
6699 - CBM 47-41-04794	1 to 2 bbl per day
Date of Water Transfer	
Start Date: 08/01/13	End Date: 08/01/14

Section IV - Planned Disposal Method

	Name	Location (NAD 83)	Permit #	Fracturing	Stimulation	Production
UIC	US Steel 11385	Lat: 39.1881	47-001-00561 & 34-013-2-0614- 00-00	25%	25%	25%
		Long: 80.0242				
NPDES (Treatment Plant)	Lat:					
	Long:					
Re-Use						
Other	Lat:					
	Long:					

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-nitrilopropionamide
 CAS: 10222-01-2
 2nd Chemical Component as listed on MSDS: Polyethylene Glycol Mixture
 CAS: 25322-68-3

Type: Scale Inhibitor (DAP-901)
 1st Chemical Component as listed on MSDS: Methanol
 CAS: 67-56-1
 2nd Chemical Component as listed on MSDS: Phosphoric 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
 Chemical 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 (DWP-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

Section VI - Operator Comments


Tygart Valley River stream gage 03054500 at Philippi, WV will be used to monitor river flow levels. Additionally, pass by flows will be set up in this area using a stake and ribbon system. The sites will be monitored daily during withdrawal to ensure appropriate water levels are maintained. Finally, the WV DEP water withdrawal tool will be monitored daily for added support.

According to EPA reporting year 2010 Causes of Impairment Reports, Tygart Valley River is an impaired water body. Designated uses include: Agriculture and Wildlife, Public Water Supply, Warm Water Fishery, Water Contact Recreation, Water Supply Industrial, Water Transport, Cooling and Power all of which are impaired.

Please note that this WMP has been updated to incorporate the following changes:

1. Section III (b) page 3 ~ Added the PHL1 Water Well as a groundwater source.
2. Section III (c) page 4 ~ Added Fairmont Brine Processing as a purchased water source.
3. Section III (e) page 5 ~ Added the PHL28 Tank Site as a multi-site impoundment source.
4. Section III (f) page 13 ~ Added wells to the re-used frac water portion.

Section VII - Plan Reviewed By

DEP Office Use only		
API# 47-097-03847		
Jason Hamner Name	 Signature	11/8/13 Date
Comments		



Entrainment and Impingement Prevention Plan

The proposed withdrawal and intake will be made tamper-resistant and semi-permanent. The system shall consist of an onshore structural support, a submerged intake device, associated piping, an intake filter, quick-connect couplings and a jet pump. The intake device will be constructed with a Johnson Screens® intake screen or a similar product with maximum openings of 1/4 inch. The intake screen length and diameter will be sized accordingly to provide sufficient open area to maintain an intake velocity less than 0.5 feet per second. Using the Johnson Hi-Flow Screen, the opening area for an 8" diameter screen is 444 square inches. Assuming a maximum pumping rate of 1470 gallons per minute (gpm), a one 16" x 15" screen section will be more than adequate to maintain the design intake velocity with a margin of safety. The final screen length and diameter will be determined based on site conditions, pump selection and approved withdrawal volume.

The intake device will be connected to a jet pump using aluminum and/or corrugated plastic quick-connect piping and couplings. The intake piping will have a pressure rating of at least 150 pounds per square inch. The final piping diameter and length will be determined based upon the site conditions, pump selection and approved withdrawal volume. To secure the intake device the intake device will be placed on the bed of the stream. The intake will be designed to extend into a deeper portion of the stream. Submergence will detour low specific gravity items from entering. The cam-lock quick-connect couplings will be locked when not in use to prevent connection and unauthorized water withdrawal.

The selected jet pump will be either electric or diesel powered and capable of flow rates of 1470 gallons per minute (gpm). A flow limiting valve and/or orifice plate will be used to restrict the instantaneous flow rate. Final product selection and site design, including pump type, pipe sizing and anchoring will be determined based on site conditions and the permitted withdrawal volume but shall adhere to the requirements mentioned above.

The velocity of the strainer is 1.6 ft³/sec and the velocity of the basin is .315 ft³/sec compared to currents both are relatively low. The screen opening and intake velocity for water at the screens surface will prevent fish from being entrained or impinged on the screen. The intake screen size and dimensions were influenced by different swimming abilities of various species and age classes of fish present at the water withdrawal site. The watercourse will not be blocked to the passage of fish.

The intake screen will be periodically monitored during operations to ensure that the screening has not collapsed to below the minimum distance between the water intake and screen surface, that there are no openings in the mesh or gaps between the mesh and frame of intake structure greater than 2.4 mm and that the screen has not become blocked by debris.

INVASIVE SPECIES TRANSFER PREVENTION PLAN



Prepared: December 15, 2011

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Introduction

The invasion of aquatic habitats by non-indigenous species, also known as non-native and exotic species can compete with native species for food, habitat, and can directly or indirectly kill native species, degrade habitat, and alter food webs.

AIS may enter water bodies through various human assisted vectors¹. Oil and gas drilling activities associated with the withdrawal and transport of water may unknowingly introduce AIS into new waters.

Actions taken to prevent the introduction of new AIS will include best management practices for the withdrawal of water of streams and transport of water.

Purpose of the plan

The purpose of this BMP is to identify measures to deter the transfer of aquatic invasive species (“AIS”) between water bodies associated with oil and gas drilling activities. AIS are plants and animals that have been introduced into new ecosystems causing unintended environmental, recreational, economic or health impacts. This BMP will outline actions recommended to be newly implemented, in addition to existing efforts, in order to close pathways and prevent new aquatic invasive species from entering and becoming established.

Vector and Pathway Definition

A vector is a physical means by which a non-indigenous species is transported to a new region, primarily by humans, whether deliberate or accidental. Within a vector, one or more pathways or routes of transfer exist by which an invasive species is transferred from one ecosystem to another.

Various vectors provide a mechanism through which AIS may enter a water body. This BMP addresses potential AIS invasion.

¹ Vectors are the modes of transmission, and pathways are routes taken.

Prevention

The most effective method of preventing the unintentional introduction of non-native species is to identify the pathways by which they are introduced and to develop environmentally sound methods to interdict introductions. Water intake structures and water transportation equipment have been identified as potential pathways in the oil and gas industry.

Define Vulnerable Receiving Environment

The receiving environment is that in which the activity takes place. This is taken to include any transit environments. It is important that all locations within the project site or operation area—not just the final destination – are considered. Areas outside the destination may include vehicles or infrastructure en route to the project or operation area.

Invasion of aquatic habitats by non-indigenous species via vehicles and/or machinery en route to the well location is not a concern within project areas as no stream crossings are located along the access road to the proposed well site and no in-stream work is required.

Awareness

Raising awareness of AIS among “on the ground” personnel (including oil and gas company staff and external contractors and service providers) has two main functions. Firstly, it increases the knowledge of AIS, which can help prevent their potential transmission, and secondly, it increases vigilance in detecting any infestations at an early stage – the only point at which eradication of an infestation is likely to be effective. Key species should be highlighted and personnel made aware of AIS (that are both visible and easily recognized) where the species have been a cause of concern. Where key AIS are not visible (eg. spores, fungi) ensure that the pathway and methods for preventing transmission are highlighted.

Existing or New AIS Infestation

Projects and operations are likely to be operating in environments where at least some AIS are already present. Measures should be taken to contain and prevent local transfer of the AIS. Where it is necessary or desirable to use infested areas, movement through the area should be limited as much as possible. Activities should be implemented to restrict AIS pathways.

Monitoring should be undertaken to record any spread of infestation. If expansion of the population is recorded, investigation of the pathways responsible is encouraged.

Engineering Controls at Intake Assembly

Water intake shall include check valves, backflow preventers, or other alternatives designed to prevent a pathway of backflow water from water transportation equipment to the water source.

Cleaning/Drying of Equipment

The following procedures to prevent vectors and pathways should be performed in the withdrawal assembly, which should be relocated to another body of water:

1. The assembly should be dismantled into individual components.
2. All vegetation, mud, silt, sediment, and/or other debris shall be physically removed from each individual component.
3. Allow all individual components to remain continually dry and in the original waterbody's flood plain for a minimum of 5 days.

It is recommended that no biocides, algacides, or other chemicals be used to clean the assembly or its individual components at or near the water source without appropriate cautionary measures.

Early Detection and Rapid Response

Even the best prevention efforts cannot stop all introductions. Early detection of incipient invasions and quick coordinated responses will be used to eradicate or contain invasive species before they become too widespread. West Virginia Department of Environmental Protection (WV DEP) will be notified if initial evidence of an invasion is suspected. A professional biologist will assess the watershed for the suspected invasive species and provide a proper plan of eradication or containment.

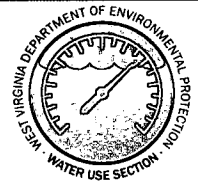
References:

Pennsylvania Fish and Boat Commission – Clean Your Gear.
www.fish.state.pa.us/cleanyourgear.htm

Sea Grants Invasive Species Inventory – www.pserie.psu.edu/seagrant/ais/



Water Management Plan:
Secondary Water Sources



WMP-01090 API/ID Number 047-097-03847 Operator: Consol Energy - WV
CENT3AHS

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Multi-site impoundment

Source ID:	14050	Source Name	Warder North Impoundment	Source start date:	8/1/2013
				Source end date:	8/1/2014
Source Lat:	39.192505	Source Long:	-80.025198	County	Barbour
Max. Daily Purchase (gal)		Total Volume from Source (gal):	9,100,000		
DEP Comments:					

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-189

WMP-01090

API/ID Number 047-097-03847

Operator: Consol Energy - WV

CENT3AHS

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Source ID: 14051	Source Name: Warder South Impoundment	Source start date: 8/1/2013
		Source end date: 8/1/2014
Source Lat: 39.19097	Source Long: -80.025198	County: Barbour
Max. Daily Purchase (gal):	Total Volume from Source (gal):	11,089,400
DEP Comments:		

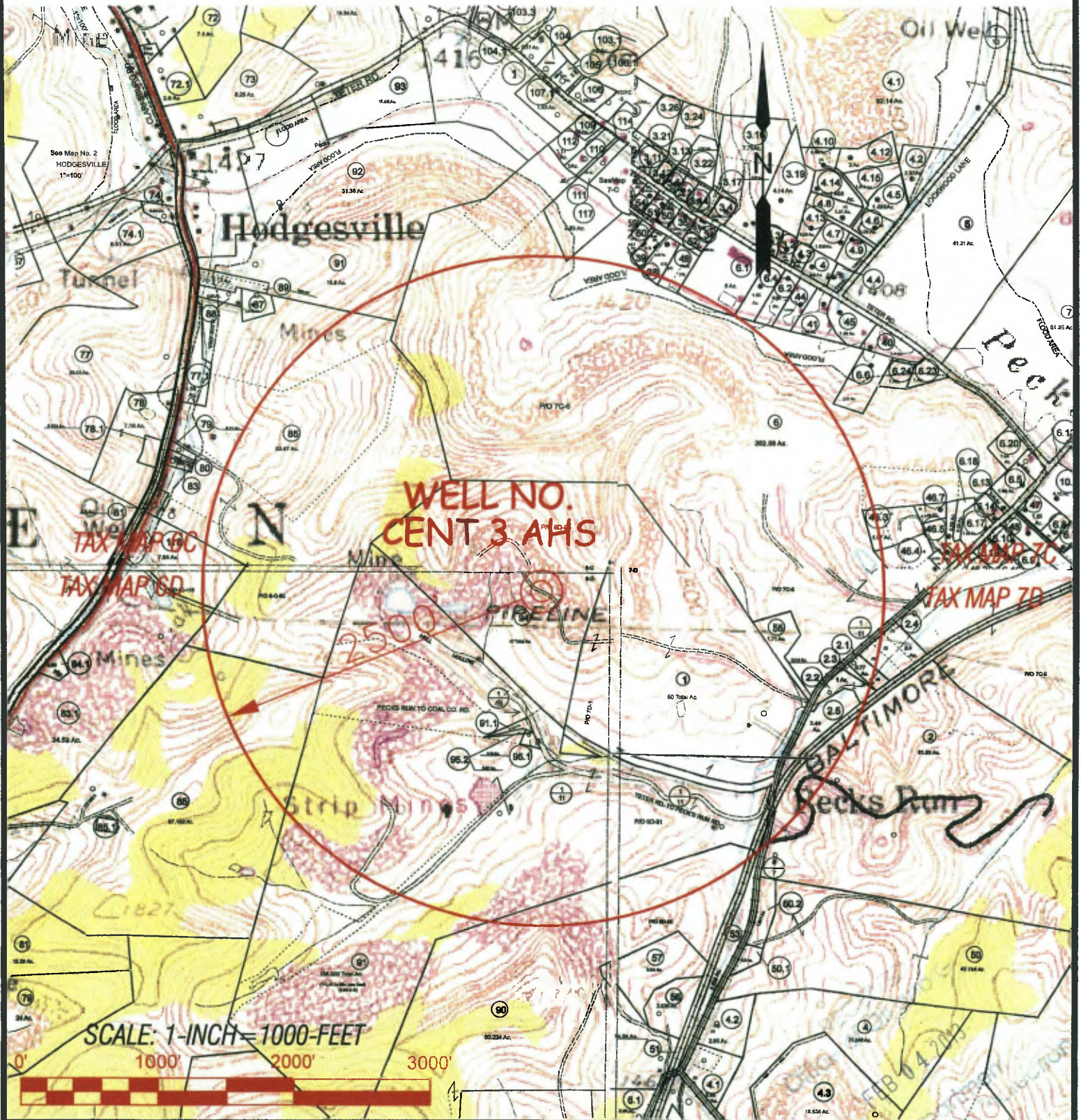
The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.


Reference: WMP-190

Recycled Frac Water

Source ID: 14052	Source Name: PHL13 Flowback Pit; PHL 4	Source start date: 8/1/2013
		Source end date: 8/1/2014
Source Lat:	Source Long:	County:
Max. Daily Purchase (gal):	Total Volume from Source (gal):	11,089,400
DEP Comments:		

V. LEASE WELL NO. CENT 3 AHS



 <p>Professional Energy Consultants A DIVISION OF S&H LAND SURVEYING</p> <p>SURVEYORS PROJECT MGMT ENVIRONMENTAL ENGINEERS</p> <p>228 Vicki Lane SE P.O. Box 112 Glenview, WV 26331 (206) 452-2834</p> <p>26665 Oakes Bottom Road Shelbyville, OH 43157 (740) 571-9211</p> <p>HONESTY INTEGRITY QUALITY</p>	<p>TOPO SECTION OF: CENTURY, WV 7.5' QUAD.</p>			<p>OPERATOR:</p> <p>CNX GAS COMPANY, LLC. P.O. BOX 1248 JANE LEW, WV 26379</p>
	<p>DRAWN BY: K.D.W.</p> <p>FILE NO.: 7898</p> <p>DATE: 01-25-13</p> <p>CADD FILE: 7898WS3AHS.dwg</p>	<p>COUNTY: UPSHUR</p> <p>DISTRICT: WARREN</p>	<p>TAX MAP-PARCEL NO.: 6D-94</p>	



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

WATER MANAGEMENT PLAN/ WATER ADDENDUM For Horizontal Oil and Gas Well Permits

Office of Oil and Gas
Phone: (304) 926-0450

DEP Office Use only	
Date Received by Oil & Gas	02/04/2013
Administratively Complete - Oil & Gas	Yes <input type="checkbox"/> No <input type="checkbox"/>
Date Received by Water Use	
Complete - Water Use	Yes <input type="checkbox"/> No <input type="checkbox"/>

Section I - Operator Information

API: 47-097 - 03847 Modification?
County Permit

Operator Name: CNX Gas Company, LLC	
Operator ID: 494458046	*Registered in the Frac Water Reporting Website? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Mailing Address: CONSOL ENERGY PO Box 1248 Jane Lew, WV 26378	Contact Name/ Title (Water Resources Manager): Amanda Langford Supervisor of Permitting – WV Region
Contact Phone: 304-884-2009	Contact Email: amandalangford@consolenergy.com

*If no, the operator will be required to register with the WVDEP Water Use Section; contact dep.water.use@wv.gov

Section II - Well Overview

Operator's Well Number: CENT3AHS			
Anticipated Frac Date: 08/01/13	Location (decimal degrees, NAD 83)		
	Latitude: N 4,492,098	Longitude: E 697,530	County: Upshur

Section III - Source Water Overview (check all that apply)

Streams/Rivers <input checked="" type="checkbox"/>	Lakes/Reservoirs <input type="checkbox"/>	Ground Water <input checked="" type="checkbox"/>	Purchased Water (PSD) <input type="checkbox"/>
Purchased Water (private) <input checked="" type="checkbox"/>	Recycled Frac Water <input checked="" type="checkbox"/>	Multi-Site Impoundment <input checked="" type="checkbox"/>	
Other (describe) :			
Total anticipated water volume to be used (gal): 11,089,400 (CENT3HS pad to total 70,351,400)			

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FEB 04 2013
E-MAIL

Section III (a) - Surface Water Source (to be completed for each surface water withdrawal location print additional pages as necessary)

Source Name: Tygart Valley River		
Location (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378		Phone: 304-884-2000
Obtained Landowner Permission? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Proposed Withdrawal Details

Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 29.4 million gal	Max. Pump Rate (gpm): 1470
No. of Pump Trucks: NA - pipeline	Max. Pump Rate per Truck (gpm): NA	No. Trucks Simultaneously Pumping: NA	

Determination that sufficient flow is available downstream from proposed intake point

Allow passby to be calculated by the DEP (Preferred)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(If no, advance written authorization by DEP is required. Attach authorization and details.)

Aquatic Life Protection

Describe Entertainment and Impingement Prevention Plan: Please See Attachment A
Describe Invasive Species Transfer Prevention Plan: Please See Attachment B

Stream details

DEP Office Use Only			
Contact Recreation <input type="checkbox"/>	Aquatic Life-Trout Water <input type="checkbox"/>	Aquatic Life-Warm Water <input type="checkbox"/>	Drinking Water Supply <input type="checkbox"/>
Industrial <input type="checkbox"/>	Agriculture <input type="checkbox"/>	Irrigation <input type="checkbox"/>	Reference Gauge:
Gauged Stream : <input type="checkbox"/>	Stream Final Code:	Regulated by:	
Trout? <input type="checkbox"/>	Sensitive Aquatic Species? <input type="checkbox"/>	Tier 3 Stream? <input type="checkbox"/>	Within 1 mile upstream of a PSD? Yes <input type="checkbox"/> No <input type="checkbox"/>
Mussels? <input type="checkbox"/>	Upstream Drainage Area?		

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Section III(b) - Ground Water Source (to be completed for each groundwater withdrawal location print additional pages as necessary)

Well Permit #:	Well name:		
Location (decimal degrees, NAD 83)			
Latitude:	Longitude:	County:	
Aquifer: (if known)			
Landowner name and address:		Phone:	
Obtained Landowner Permission? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<input checked="" type="checkbox"/> * New well (Drill Date): _____ <input type="checkbox"/> Existing Well	

If drilling a new well, please submit well logs to DEP's Water Use Section, Wells must be drilled and plugged in accordance with DHHR regulations

Total Depth:	Type of Casing:	Casing Diameter:	Screen Interval:	Screen Size:
Static Water Elevation:	Top of Casing Elevation:	Surface Elevation:	Type of Well Cap:	
Withdrawal Details				
Start Date:	End Date:	Total Withdrawal from Source (gal):	Max. Pump Rate (gpm):	

Analysis of potential groundwater impacts

Static Water Level Prior to Test: _____	Feet below grade
Drawdown (Water Level/Elevation During Pump Test): _____	Feet
Duration of Pump Test: _____	Hours
Gallons Per Minute During Pump Test: _____	Gpm
Time to Return to Static Water Level After Pump Test: _____	Hours

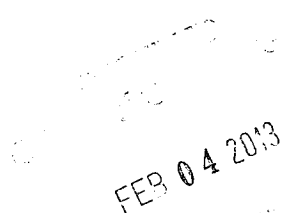
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Section III (c) - Purchased Water Source (to be completed for each water supplier, print additional pages as necessary)

Supplier Name and Contact Information: NA			
Location (decimal degrees, NAD 83)			
Latitude:	Longitude:	County:	
Public Water Provider <input type="checkbox"/>	Waste Water Treatment Plant <input type="checkbox"/>	Industrial (intake locations must be provided) <input type="checkbox"/>	
Commercial Supplier (intake locations must be provided) <input type="checkbox"/>		Private (intake locations must be provided) <input type="checkbox"/>	
Start Date:	End Date:	Total Purchase from Source (gal):	Max. Daily Purchase (gal):
Supplier intake details:			

Section III (d) - Lake/Reservoir Water Source (to be completed for each lake/reservoir)

Lake/Reservoir Name: NA			
Location (decimal degrees, NAD 83)			
Latitude:	Longitude:	County:	
Landowner name and address:			
Permission to withdraw obtained from owner:		Minimum release (cfs):	
Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Withdrawal Details			
Start Date:	End Date:	Total Withdrawal from Source (gal):	Max. Pump Rate (gal):


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Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: Warder North Impoundment			
Referenced WMP#: 00189			
Location (decimal degrees, NAD83)			
Latitude: N 39.1925051	Longitude: W 80.0251983	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 3,696,000	

Impoundment filling details - source		
Source Name: Tygart Valley River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour

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Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: Warder South Impoundment			
Referenced WMP#: 00190			
Location (decimal degrees, NAD83)			
Latitude: N 39.1910970	Longitude: W 80.0251983	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 3,570,000	

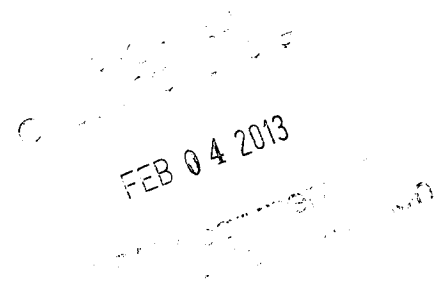
Impoundment filling details - source		
Source Name: Tygart Valley River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour

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 WV DEPARTMENT OF ENVIRONMENTAL PROTECTION

Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: PHL13 Flowback Pit			
Referenced WMP#: N/A API: 047-001-03220			
Location (decimal degrees, NAD83)			
Latitude: 39.219211094	Longitude: 80.018059809	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 1.8 million	

Impoundment filling details - source		
Source Name: Buckhannon River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 38.803115	Longitude: W 80.206603	County: Upshur



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Section III (f) - Reused Frac Water (to be completed for each source, print additional pages as necessary)

API # of Previous Well (where water was obtained from):		Total withdrawal from source (gal):	
PHL 4 Pad:		50,000	
PHL4AHS	047-001-03247		
PHL4BHS	047-001-03248		
PHL4CHS	047-001-03249		
PHL13 Pad:		100,000	
PHL13AHS	047-001-03220		
PHL13BHS	047-001-03221		
PHL13CHS	047-001-03222		
PHL13DHS	047-001-03223		
PHL13EHS	047-001-03238		
PHL13FHS	047-001-03239		
Date of Water Transfer			
Start Date: 08/01/13		End Date: 08/01/14	

Section IV - Planned Disposal Method

	Name	Location (NAD 83)	Permit #	Fracturing	Stimulation	Production
UIC	US Steel 11385	Lat: 39.1881	47-001-00561 & 34-013-2-0614- 00-00	25%	25%	25%
		Long: 80.0242				
NPDES (Treatment Plant)	Lat:					
	Long:					
Re-Use						
Other	Lat:					
	Long:					

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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-nitrilopropionamide
 CAS: 10222-01-2
 2nd Chemical Component as listed on MSDS: Polyethylene Glycol Mixture
 CAS: 25322-68-3

Type: Scale Inhibitor (DAP-901)
 1st Chemical Component as listed on MSDS: Methanol
 CAS: 67-56-1
 2nd Chemical Component as listed on MSDS: Phosphoric 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
 Chemical 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 (DWP-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

COALITION FOR CLEAN WATER
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Section VI - Operator Comments

Tygart Valley River stream gage 03054500 at Philippi, WV will be used to monitor river flow levels. Additionally, pass by flows will be set up in this area using a stake and ribbon system. The sites will be monitored daily during withdrawal to ensure appropriate water levels are maintained. Finally, the WV DEP water withdrawal tool will be monitored daily for added support.

According to EPA reporting year 2010 Causes of Impairment Reports, Tygart Valley River is an impaired water body. Designated uses include: Agriculture and Wildlife, Public Water Supply, Warm Water Fishery, Water Contact Recreation, Water Supply Industrial, Water Transport, Cooling and Power all of which are impaired.

The water needed for CENT3AHS will be approximately 11,089,400 million gallons of water to be used at the site. 70,351,400 million gallons will be applied for all 5 wells on pad. The CENT3AHS lateral currently measures 5350' and it is expected to be modified to 8900' at a later date.

Please note that this WMP will be modified at a later date to include the Cinelli, Webber, and PHL28 Tank Site Impoundments as well as the Philippi 1 Water Well. Would like to list all sources should we encounter low flow. These are all in the process of being designed and/or permitted at this time.

Brief description for your reference:

Cinelli Impoundment: (8.47 million gallons) Engineer Design nearly complete and ready for submittal.

(NAD 83) Lat: 39.05608

Lon: 80.18271

Webber Impoundment: (11 million gallons) Engineer Design nearly complete and ready for submittal.

(NAD 83) Lat: 39.091283532

Lon: 80.108288131

PHL28 Tank Site: (6 million gallons) NPDES permit application submitted 01/21/13.

(NAD 83) Lat: 39-12-06.29

Lon: 80-02-04.17

Philippi 1 Water Well: Currently being drill and completed

(NAD 83) Lat: 39-11-28.67

Lon: 80-01-9.18

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Section VII - Plan Reviewed By

DEP Office Use only		
API#		
Name:	Signature:	Date:
Comments		

FEB 04 2013

WMP#: 01090



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

WATER MANAGEMENT PLAN/ WATER ADDENDUM

For Horizontal Oil and Gas Well Permits
Office of Oil and Gas
Phone: (304) 926-0450

DEP Office Use only	
Date Received by Oil & Gas:	2-11-13
Administratively Complete - Oil & Gas:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Date Received by Water Use:	
Complete - Water Use:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section I - Operator Information

API: 47-097 - 03847 Modification?
County Permit

Operator Name: CNX Gas Company, LLC	
Operator ID: 494458046	*Registered in the Frac Water Reporting Website? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Mailing Address: CONSOL ENERGY PO Box 1248 Jane Lew, WV 26378	Contact Name/ Title (Water Resources Manager): Amanda Langford Supervisor of Permitting - WV Region
Contact Phone: 304-884-2009	Contact Email: amandalangford@consolenergy.com

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FEB 12 2013
WVDEP
Water Use Section

*If no, the operator will be required to register with the WVDEP Water Use Section; contact dep.water.use@wv.gov

Section II - Well Overview

Operator's Well Number: CENT3AHS			
Anticipated Frac Date: 08/01/13	Location (decimal degrees, NAD 83)		
	Latitude: N 43.323,404 39.056847	Longitude: E 570.524 -80.184911	County: Upshur

Section III - Source Water Overview (check all that apply)

Streams/Rivers <input checked="" type="checkbox"/>	Lakes/Reservoirs <input type="checkbox"/>	Ground Water <input checked="" type="checkbox"/>	Purchased Water (PSD) <input type="checkbox"/>
Purchased Water (private) <input checked="" type="checkbox"/>	Recycled Frac Water <input checked="" type="checkbox"/>	Multi-Site Impoundment <input checked="" type="checkbox"/>	
Other (describe):			
Total anticipated water volume to be used (gal): 11,089,400 (CENT3HS pad to total 70,351,400)			

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Section III (a) - Surface Water Source (to be completed for each surface water withdrawal location print additional pages as necessary)

Source Name: Tygart Valley River		
Location (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378		Phone: 304-884-2000
Obtained Landowner Permission? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Proposed Withdrawal Details

Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 29.4 million gal	Max. Pump Rate (gpm): 1470
No. of Pump Trucks: NA - pipeline	Max. Pump Rate per Truck (gpm): NA	No. Trucks Simultaneously Pumping: NA	

Determination that sufficient flow is available downstream from proposed intake point

Allow passby to be calculated by the DEP (Preferred)? Yes No

(If no, advance written authorization by DEP is required. Attach authorization and details.)

Aquatic Life Protection

Describe Entertainment and Impingement Prevention Plan: Please See Attachment A

Describe Invasive Species Transfer Prevention Plan: Please See Attachment B

Stream details

DEP Office Use Only			
Contact Recreation <input type="checkbox"/>	Aquatic Life Trout Water <input type="checkbox"/>	Aquatic Life Warm Water <input type="checkbox"/>	Drinking Water Supply <input type="checkbox"/>
Industrial <input type="checkbox"/>	Agriculture <input type="checkbox"/>	Irrigation <input type="checkbox"/>	Reference Gauge <input type="checkbox"/>
Gauged Stream <input type="checkbox"/>	Stream Final Code	Regulated by	
Trout? <input type="checkbox"/>	Sensitive Aquatic Species? <input type="checkbox"/>	Tier 3 Stream? <input type="checkbox"/>	Within 1 mile upstream of a PSD? Yes <input type="checkbox"/> No <input type="checkbox"/>
Mussels? <input type="checkbox"/>	Upstream Drainage Area? Received Office of Oil & Gas		

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Section III(b) - Ground Water Source (to be completed for each groundwater withdrawal location
print additional pages as necessary)

Well Permit #:		Well name:	
Location (decimal degrees, NAD 83)			
Latitude:	Longitude:	County:	
Aquifer: (if known)			
Landowner name and address:		Phone:	
Obtained Landowner Permission?		<input checked="" type="checkbox"/> * New well (Drill Date): _____ <input type="checkbox"/> Existing Well	
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

If drilling a new well, please submit well logs to DEP's Water Use Section. Wells must be drilled and plugged in accordance with DHHR regulations

Total Depth:	Type of Casing:	Casing Diameter:	Screen Interval:	Screen Size:
Static Water Elevation:	Top of Casing Elevation:	Surface Elevation:	Type of Well Cap:	
Withdrawal Details				
Start Date:	End Date:	Total Withdrawal from Source (gal):	Max. Pump Rate (gpm):	

Analysis of potential groundwater impacts

Static Water Level Prior to Test: _____	Feet below grade
Drawdown (Water Level/Elevation During Pump Test): _____	Feet
Duration of Pump Test: _____	Hours
Gallons Per Minute During Pump Test: _____	Gpm
Time to Return to Static Water Level After Pump Test: _____	Hours

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Section III (c) - Purchased Water Source (to be completed for each water supplier, print additional pages as necessary)

Supplier Name and Contact Information: NA			
Location (decimal degrees, NAD 83)			
Latitude:	Longitude:	County:	
Public Water Provider <input type="checkbox"/>	Waste Water Treatment Plant <input type="checkbox"/>	Industrial (intake locations must be provided) <input type="checkbox"/>	
Commercial Supplier (intake locations must be provided) <input type="checkbox"/>		Private (intake locations must be provided) <input type="checkbox"/>	
Start Date:	End Date:	Total Purchase from Source (gal):	Max. Daily Purchase (gal):
Supplier intake details:			

Section III (d) – Lake/Reservoir Water Source (to be completed for each lake/reservoir)

Lake/Reservoir Name: NA			
Location (decimal degrees, NAD 83)			
Latitude:	Longitude:	County:	
Landowner name and address:			
Permission to withdraw obtained from owner:		Minimum release (cfs):	
Yes <input type="checkbox"/>	No <input type="checkbox"/>		
Withdrawal Details			
Start Date:	End Date:	Total Withdrawal from Source (gal):	Max. Pump Rate (gal):

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Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: Warder North Impoundment			
Referenced WMP#: 00189			
Location (decimal degrees, NAD83)			
Latitude: N 39.1925051	Longitude: W 80.0251983	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 3,696,000	

Impoundment filling details - source		
Source Name: Tygart Valley River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour

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Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: Warder South Impoundment			
Referenced WMP#: 00190			
Location (decimal degrees, NAD83)			
Latitude: N 39.1910970	Longitude: W 80.0251983	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378			
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>	
Withdrawal Details from Impoundment to well-site			
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 3,570,000	

Impoundment filling details - source		
Source Name: Tygart Valley River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 39.190421	Longitude: W 80.017423	County: Barbour

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Section III (e) - Multi-Site impoundment (to be completed for each source, print additional pages as necessary)

Impoundment Name and Owner: PHL13 Flowback Pit				}	<i>Recycled Tra Water</i>
Referenced WMP#: N/A API: 047-001-03220					
Location (decimal degrees, NAD83)					
Latitude: 39.219211094	Longitude: 80.018059809	County: Barbour	Registered LQU? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Landowner name and address: CONSOL ENERGY One Energy Drive Jane Lew, WV 26378					
Permission to Withdraw Obtained from Owner: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Intake Type: Permanent Structure <input checked="" type="checkbox"/> Or Temporary Structure <input type="checkbox"/>			
Withdrawal Details from Impoundment to well-site					
Start Date: 08/01/13	End Date: 08/01/14	Total Withdrawal from Source (gal): 1.8 million			

Impoundment filling details - source		
Source Name: Buckhannon River		
Location of intake (decimal degrees, NAD 83)		
Latitude: N 38.803115	Longitude: W 80.206603	County: Upshur

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Section III (f) - Reused Frac Water (to be completed for each source, print additional pages as necessary)

API # of Previous Well (where water was obtained from):		Total withdrawal from source (gal):	
PHL 4 Pad: PHL4AHS 047-001-03247 PHL4BHS 047-001-03248 PHL4CHS 047-001-03249		50,000	
PHL13 Pad: PHL13AHS 047-001-03220 PHL13BHS 047-001-03221 PHL13CHS 047-001-03222 PHL13DHS 047-001-03223 PHL13EHS 047-001-03238 PHL13FHS 047-001-03239		100,000	
Date of Water Transfer			
Start Date: 08/01/13		End Date: 08/01/14	

Section IV - Planned Disposal Method

	Name	Location (NAD 83)	Permit #	Fracturing	Stimulation	Production
UIC	US Steel 11385	Lat: 39.1881	47-001-00561 & 34-013-2-0614- 00-00	25%	25%	25%
		Long: 80.0242				
NPDES (Treatment Plant)	Lat:					
	Long:					
Re-Use						
Other	Lat:					
	Long:					

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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-nitropropionamide
 CAS: 10222-01-2
 2nd Chemical Component as listed on MSDS: Polyethylene Glycol Mixture
 CAS: 25322-68-3

Type: Scale Inhibitor (DAP-901)
 1st Chemical Component as listed on MSDS: Methanol
 CAS: 67-56-1
 2nd Chemical Component as listed on MSDS: Phosphoric 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
 Chemical 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 (DWP-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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Section VI - Operator Comments

Tygart Valley River stream gage 03054500 at Philippi, WV will be used to monitor river flow levels. Additionally, pass by flows will be set up in this area using a stake and ribbon system. The sites will be monitored daily during withdrawal to ensure appropriate water levels are maintained. Finally, the WV DEP water withdrawal tool will be monitored daily for added support.

According to EPA reporting year 2010 Causes of Impairment Reports, Tygart Valley River is an impaired water body. Designated uses include: Agriculture and Wildlife, Public Water Supply, Warm Water Fishery, Water Contact Recreation, Water Supply Industrial, Water Transport, Cooling and Power all of which are impaired.

The water needed for CENT3AHS will be approximately 11,089,400 million gallons of water to be used at the site. 70,351,400 million gallons will be applied for all 5 wells on pad. The CENT3AHS lateral currently measures 5350' and it is expected to be modified to 8900' at a later date.

Please note that this WMP will be modified at a later date to include the Cinelli, Webber, and PHL28 Tank Site Impoundments as well as the Philippi 1 Water Well. Would like to list all sources should we encounter low flow. These are all in the process of being designed and/or permitted at this time.

Brief description for your reference: *Sources may not be used until the WMP is mod. to include them.*

*Cinelli Impoundment: (8.47 million gallons) Engineer Design nearly complete and ready for submittal.
(NAD 83) Lat: 39.05608
Lon: 80.18271*

*Webber Impoundment: (11 million gallons) Engineer Design nearly complete and ready for submittal.
(NAD 83) Lat: 39.091283532
Lon: 80.108288131*

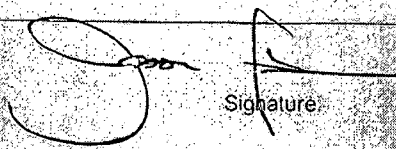
*PHL28 Tank Site: (6 million gallons) NPDES permit application submitted 01/21/13.
(NAD 83) Lat: 39-12-06.29
Lon: 80-02-04.17*

*Philippi 1 Water Well: Currently being drill and completed
(NAD 83) Lat: 39-11-28.67
Lon: 80-01-9.18*

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Section VII - Plan Reviewed By

DEP Office Use only		
API# 47-097-03647		
Jean Hume Name:	 Signature:	3/29/13 Date:
Comments		

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Office of O&E

FEB 11



Entrainment and Impingement Prevention Plan

The proposed withdrawal and intake will be made tamper-resistant and semi-permanent. The system shall consist of an onshore structural support, a submerged intake device, associated piping, an intake filter, quick-connect couplings and a jet pump. The intake device will be constructed with a Johnson Screens® intake screen or a similar product with maximum openings of 1/4 inch. The intake screen length and diameter will be sized accordingly to provide sufficient open area to maintain an intake velocity less than 0.5 feet per second. Using the Johnson Hi-Flow Screen, the opening area for an 8" diameter screen is 444 square inches. Assuming a maximum pumping rate of 1470 gallons per minute (gpm), a one 16" x 15" screen section will be more than adequate to maintain the design intake velocity with a margin of safety. The final screen length and diameter will be determined based on site conditions, pump selection and approved withdrawal volume.

The intake device will be connected to a jet pump using aluminum and/or corrugated plastic quick-connect piping and couplings. The intake piping will have a pressure rating of at least 150 pounds per square inch. The final piping diameter and length will be determined based upon the site conditions, pump selection and approved withdrawal volume. To secure the intake device the intake device will be placed on the bed of the stream. The intake will be designed to extend into a deeper portion of the stream. Submergence will detour low specific gravity items from entering. The cam-lock quick-connect couplings will be locked when not in use to prevent connection and unauthorized water withdrawal.

~~The selected jet pump will be either electric or diesel powered and capable of flow rates of 1470 gallons per minute (gpm). A flow limiting valve and/or orifice plate will be used to restrict the instantaneous flow rate. Final product selection and site design, including pump type, pipe sizing and anchoring will be determined based on site conditions and the permitted withdrawal volume but shall adhere to the requirements mentioned above.~~

The velocity of the strainer is 1.6 ft³/sec and the velocity of the basin is .315 ft³/sec compared to currents both are relatively low. The screen opening and intake velocity for water at the screens surface will prevent fish from being entrained or impinged on the screen. The intake screen size and dimensions were influenced by different swimming abilities of various species and age classes of fish present at the water withdrawal site. The watercourse will not be blocked to the passage of fish.

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back to the gas
FEB 11

The intake screen will be periodically monitored during operations to ensure that the screening has not collapsed to below the minimum distance between the water intake and screen surface, that there are no openings in the mesh or gaps between the mesh and frame of intake structure greater than 2.4 mm and that the screen has not become blocked by debris.

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Office of Oil & Gas

FEB 11

INVASIVE SPECIES TRANSFER PREVENTION PLAN



Prepared: December 15, 2011

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Office of Oil & Gas

FEB 11 2012

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INVASIVE SPECIES TRANSFER PREVENTION PLAN

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Introduction

The invasion of aquatic habitats by non-indigenous species, also known as non-native and exotic species can compete with native species for food, habitat, and can directly or indirectly kill native species, degrade habitat, and alter food webs.

AIS may enter water bodies through various human assisted vectors¹. Oil and gas drilling activities associated with the withdrawal and transport of water may unknowingly introduce AIS into new waters.

Actions taken to prevent the introduction of new AIS will include best management practices for the withdrawal of water of streams and transport of water.

Purpose of the plan

The purpose of this BMP is to identify measures to deter the transfer of aquatic invasive species ("AIS") between water bodies associated with oil and gas drilling activities. AIS are plants and animals that have been introduced into new ecosystems causing unintended environmental, recreational, economic or health impacts. This BMP will outline actions recommended to be newly implemented, in addition to existing efforts, in order to close pathways and prevent new aquatic invasive species from entering and becoming established.

Vector and Pathway Definition

A vector is a physical means by which a non-indigenous species is transported to a new region, primarily by humans, whether deliberate or accidental. Within a vector, one or more pathways or routes of transfer exist by which an invasive species is transferred from one ecosystem to another.

Various vectors provide a mechanism through which AIS may enter a water body. This BMP addresses potential AIS invasion.

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¹ Vectors are the modes of transmission, and pathways are routes taken.

FEB 11

Prevention

The most effective method of preventing the unintentional introduction of non-native species is to identify the pathways by which they are introduced and to develop environmentally sound methods to interdict introductions. Water intake structures and water transportation equipment have been identified as potential pathways in the oil and gas industry.

Define Vulnerable Receiving Environment

The receiving environment is that in which the activity takes place. This is taken to include any transit environments. It is important that all locations within the project site or operation area—not just the final destination – are considered. Areas outside the destination may include vehicles or infrastructure en route to the project or operation area.

Invasion of aquatic habitats by non-indigenous species via vehicles and/or machinery en route to the well location is not a concern within project areas as no stream crossings are located along the access road to the proposed well site and no in-stream work is required.

Awareness

Raising awareness of AIS among “on the ground” personnel (including oil and gas company staff and external contractors and service providers) has two main functions. Firstly, it increases the knowledge of AIS, which can help prevent their potential transmission, and secondly, it increases vigilance in detecting any infestations at an early stage – the only point at which eradication of an infestation is likely to be effective. Key species should be highlighted and personnel made aware of AIS (that are both visible and easily recognized) where the species have been a cause of concern. Where key AIS are not visible (eg. spores, fungi) ensure that the pathway and methods for preventing transmission are highlighted.

Existing or New AIS Infestation

Projects and operations are likely to be operating in environments where at least some AIS are already present. Measures should be taken to contain and prevent local transfer of the AIS. Where it is necessary or desirable to use infested areas, movement through the area should be limited as much as possible. Activities should be implemented to restrict AIS pathways.

Revised
Office of Oil & Gas

INVASIVE SPECIES TRANSFER PREVENTION PLAN

**CONSOL
ENERGY**

Monitoring should be undertaken to record any spread of infestation. If expansion of the population is recorded, investigation of the pathways responsible is encouraged.

Engineering Controls at Intake Assembly

Water intake shall include check valves, backflow preventers, or other alternatives designed to prevent a pathway of backflow water from water transportation equipment to the water source.

Cleaning/Drying of Equipment

The following procedures to prevent vectors and pathways should be performed in the withdrawal assembly, which should be relocated to another body of water:

1. The assembly should be dismantled into individual components.
2. All vegetation, mud, silt, sediment, and/or other debris shall be physically removed from each individual component.
3. Allow all individual components to remain continually dry and in the original waterbody's flood plain for a minimum of 5 days.

It is recommended that no biocides, algaecides, or other chemicals be used to clean the assembly or its individual components at or near the water source without appropriate cautionary measures.

Early Detection and Rapid Response

Even the best prevention efforts cannot stop all introductions. Early detection of incipient invasions and quick coordinated responses will be used to eradicate or contain invasive species before they become too widespread. West Virginia Department of Environmental Protection (WV DEP) will be notified if initial evidence of an invasion is suspected. A professional biologist will assess the watershed for the suspected invasive species and provide a proper plan of eradication or containment.

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**INVASIVE SPECIES TRANSFER
PREVENTION PLAN**

**CONSOL
ENERGY**

References:

Pennsylvania Fish and Boat Commission – Clean Your Gear.
www.fish.state.pa.us/cleanyourgear.htm

Sea Grants Invasive Species Inventory – www.pseric.psu.edu/seagrant/ais/

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**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached			

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

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

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

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: CNX Gas Company, LLC
 By: Jeremy Jones
 Its: Designated Agent-General Manager WV Gas Operations



FEB 04 2013
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



August 23, 2013

Ms. Laura Cooper
WV DEP Office of Oil & Gas
601 57th St., SE
Charleston, WV 25304

RE: CONSOL Energy's proposed CENT3AHS Well, in Upshur County, West Virginia
Drilling Under CR 4/7

Dear Ms. Cooper:

CONSOL Energy, Inc. (CNX) is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to CNX's right to drill under CR 4/7. Please be advised that according to the title information we have relied on in submitting this application, the State owns no oil and gas rights under said road(s) and/or railroad(s) that CNX has leased said rights from the appropriate parties as set forth on the accompanying Form WW-6A1.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Amanda Wright', written over a horizontal line.

Amanda Wright
Supervisor - Permitting
CONSOL Energy, Inc.

RECEIVED
Office of Oil and Gas

AUG 23 2013

WV Department of
Environmental Protection

THE RECORD DELTA
P.O. BOX 550
BUCKHANNON, WV 26201
(304) 472-2800
FEIN NO. 363672215

AFFIDAVIT

STATE OF WEST VIRGINIA, COUNTY OF UPSHUR, ✓
Carmela Rice, Legal Clerk of the Record Delta,
a Newspaper Published in Buckhannon in said county,
do hereby certify that the annexed

Consol Energy
PO Box 1248
One Energy Dr
Jane Lew WV 26378
ATTN: Kelly Eddy

CNX Gas Company, Inc Well # CENT3AHS
Was published once a week for Two Successive
weeks in said Record Delta Newspaper as aforesaid,
commencing on the 11th day of February, 2013

Legal Clerk: Carmela Rice

LEGAL ADVERTISEMENT INVOICE

ACCT# 7880 LEGAL# 7217

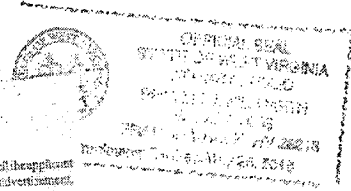
WEST VIRGINIA, UPSHUR COUNTY, TO WIT: ✓
Subscribed and sworn before me this 11th
day of February 2013.

DESCRIPTION CNX Gas Company, Inc Well # CENT3AHS

PUBLICATION DATES	PUBLICATION COST
2/11/2013	\$ 103.24
2/18/2013	\$ 77.43
	\$ -
	\$ -
	\$ -
	\$ -
	\$ -
	\$ -
	\$ -
AFFIDAVIT FEE	\$ 2.00
TOTAL	

Notary Public: Phyllis J. ...
My commission expires: 11 May 26, 2013

HORIZONTAL NATURAL GAS WELL WORK PERMIT
APPLICATION NOTICE BY PUBLICATIONS



Legal Rate: .11 1/5 cents p
75% of the

Notice is hereby given: Pursuant to West Virginia Code 22-6A-16(c) prior to filing an application for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: The Record Delta
Public Notice Date: 2/11/13

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface, including pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: CNX Gas Company, LLC Well Number: CENT3AHS
Address: P.O. Box 1248
Jane Lew, WV 26378

Business Conducted: Natural gas production.

Location - State: West Virginia County: Upshur
District: Warren Quadrangle County
UTM Coordinate NAD83 Northing: 4,323,401 M
UTM Coordinate NAD83 Easting: 570,524
Watershed: Pecks Run

Coordinate Conversion: To convert the coordinates above into longitude and latitude, visit: <http://www.fgdl.gov/arcgis/convert.html>

Electronic notification: To receive an email when applications have been received or issued by the Office of Oil and Gas, visit: <http://www.dnr.wv.gov/links/Pages/DEP/EmailList.aspx> to sign up.

Reviewing Applications: Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-226-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP@wv.gov.

Submitting Comments: Comments may be submitted online at <http://dncs.dep.wv.gov/dncs/comments/comments.htm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dnr.wv.gov/arcgis/convert.html

WW-PN
(5-04-2012)

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: The Record Delta

Public Notice Date: 2/11/13 & 2/18/13

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: CNX Gas Company LLC

Well Number: CENT3AHS

Address: P.O. Box 1248

Jane Lew, WV 26378

Received
Office of Oil & Gas

Business Conducted: Natural gas production.

FEB 11 2013

Location –

State: West Virginia

County: Upshur

District: Warren

Quadrangle: Century

UTM Coordinate NAD83 Northing: 4,323,401

UTM coordinate NAD83 Easting: 570,524

Watershed: Pecks Run

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit

<http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.oog@wv.gov.

Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

THE RECORD  DELTA 304-472-2800 All Major Credit Cards Accepted

CLASSIFIEDS

LEGAL NOTICES

HORIZONTAL NATURAL GAS WELL WORK PERMIT APPLICATION NOTICE BY PUBLICATIONS

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: The Record Delta

Public Notice Date: 2/1/13

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: CNX Gas Company, LLC **Well Number:** CENT3AHS

Address: P.O Box 1248
Jane Lew, WV 26378

Business Conducted: Natural gas production.

Location -

State: West Virginia County: Upshur
District: Warren Quadrangle: Century
UTM Coordinate NAD83 Northing: 4,492,098
UTM Coordinate NAD83 Easting: 697,530
Watershed: Pecks Run

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tags.dep.wv.gov/convert/utm_comus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/inside/dep/Pages/DEPMailingLists.aspx> to sign up.

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Submitting Comments:

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Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx (02-01, 02-08)

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OFFICE



WW-PN
(5-04-2012)

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: The Record Delta

Public Notice Date: 2/1/13

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Applicant: CNX Gas Company, LLC **Well Number:** CENT3AHS

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Business Conducted: Natural gas production.

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UTM Coordinate NAD83 Northing: 4,492,098
UTM coordinate NAD83 Easting: 697,530
Watershed: Pecks Run

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

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Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

OFFICE OF OIL AND GAS
FEB 04 2013

WW-6AC
(1/12)

FEB 11 2013

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

Date of Notice Certification: 01/28/2013

API No. 47- 097 - 3847
Operator's Well No. CENT3AHS
Well Pad Name: Century 3 Pad

Notice has been given:

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>570,524</u>
County: <u>Upshur</u>	Northing: <u>4,323,401</u>
District: <u>Warren</u>	Public Road Access: <u>County Route 1/11</u>
Quadrangle: <u>Century 7.5'</u>	Generally used farm name: <u>Russell W. Helton</u>
Watershed: <u>Pecks Run</u>	

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

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

Required Attachments:

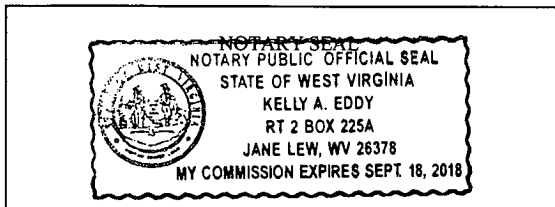
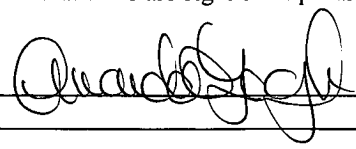
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

Certification of Notice is hereby given:

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

Well Operator: CNX Gas Company, LLC
By: Jeremy Jones
Its: Designated Agent-General Manager WV Gas Operations
Telephone: 304-884-2009, Amanda Langford

Address: P.O. Box 1248
Jane Lew, WV 26378
Facsimile: 304-884-2245
Email: amandalangford@consolenegy.com



Subscribed and sworn before me this 29th day of January 2013
Kelly A. Eddy Notary Public
My Commission Expires September 18, 2018

Oil and Gas Privacy Notice:

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

RECEIVED
Office of Oil and Gas
FEB 04 2013

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**
Date of Notice: 01/28/2013 **Date Permit Application Filed:** _____

Notice of:

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

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

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b), no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner.

Notice is hereby provided to:

SURFACE OWNER(s) J
 Name: Russell W. Helton
 Address: RT 5 Box 198
Buckhannon, WV 26201
 Name: _____
 Address: _____

COAL OWNER OR LESSEE J
 Name: Elemental Resources LLC
 Address: 1018 Kanawha Blvd E
Charleston, WV 25301-2841

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: Russell W. Helton
 Address: RT 5 Box 198
Buckhannon, WV 26201
 Name: _____
 Address: _____

COAL OPERATOR
 Name: None of the Declaration
 Address: _____

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

WATER PURVEYOR(s)
 Name: See Attached List
 Address: _____

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

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 OFFICE OF OIL AND GAS
 FEB 04 2013
 ALL DOCUMENTS
 MUST BE FILED WITH THE DIVISION

*Please attach additional forms if necessary.

Notice is hereby given:

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

This Notice Shall Include:

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

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall also 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.

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.

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.

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.

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 wellpad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items 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.

Written Comment:

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

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

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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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.

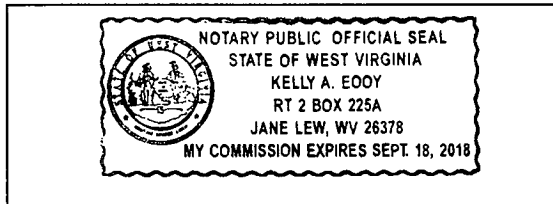
Notice is hereby given by:

Well Operator: CNX Gas Company, LLC
Telephone: 304-884-2009, Amanda Langford
Email: amandalangford@consolenegy.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.



Notary Seal

Subscribed and sworn before me this 29th day of January 2013
Kelly A. Eddy Notary Public
My Commission Expires September 18, 2018

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FEB 04 2013
DEPARTMENT OF ENVIRONMENTAL PROTECTION



SMITH LAND SURVEYING, INC.

P.O. BOX 150, GLENVILLE, WV 26351

(304) 462-5634 • FAX 462-5656

OPERATOR: CNX Gas Company, LLC.

LEASE NAME AND NUMBER: V. Lease Well No. Cent 3 AHS

COMMENTS

The initial mapping review of the area surrounding the proposed well site revealed the below listed surface owner(s) that were potentially utilizing groundwater (potable) for Human Consumption or other purposes within 2500' of the proposed well site. The following landowners will be notified of the opportunity to request a water sample.

*Please note that the following information is subject to change upon field inspection.

INDIVIDUAL CONTACTED OR NOTIFIED ✓

Owner/Occupant: Todd F. Payne, Traci K. Payne & Todd Payne

Address: Rt 5 Box 197 A, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 91

Owner/Occupant: Russell W. Helton ✓

Address: Rt 5 Box 198, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 94

Owner/Occupant: Patricia Ann & Samuel J. Christian ✓

Address: RT 5 Box 197AA, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 95.1

Owner/Occupant: Samuel J. & Patricia Ann Christian ✓

Address: RT 5 Box 197AA, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 6D Par # 95.2

Owner/Occupant: Russell W. Helton ✓

Address: Rt 5 Box 198, Buckhannon, WV. 26201 Letter/Notice Date: _____

Comments: Map 7D Par # 1

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Owner/Occupant: Lionel R. & Toni C. Newman
Address: RT 5 Box 197, Buckhannon, WV. 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 2

Owner/Occupant: Travis C. & Megan G. Bennett
Address: RT 5 Box 165D, Buckhannon, WV. 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 2.1

Owner/Occupant: Christopher D. Alkire c/o WV Housing Dev. Fund
Address: 814 Virginia St. E., Charleston, WV. 25301 Letter/Notice Date: _____
Comments: Map 7D Par # 2.2

Owner/Occupant: James & Kim Lowther
Address: RT 5 Box 197-B, Buckhannon, WV. 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 2.5

Owner/Occupant: Luetta J. & Walter V. Sinclair Jr.
Address: 35 Pecks Run Rd., Buckhannon, WV. 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 6

Owner/Occupant: Jeffrey Scott Johnson & Jody Lynn Jonhson
Address: RR 5 Box 197-C, Buckhannon, WV. 26201 Letter/Notice Date: _____
Comments: Map 7D Par # 55

Owner/Occupant: Florinda Soles
Address: RT 5 Box 198-B-C, Buckhannon, WV. 26201 Letter/Notice Date: _____
Comments: Map 7C Par # 46.3

Owner/Occupant: _____
Address: _____ Letter/Notice Date: _____
Comments: _____

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EJ

**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 least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

Date of Notice: 10/23/2012 ✓ **Date of Planned Entry:** _____

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Russell W. Helton
 Address: RT 5 Box 198
Buckhannon, WV 26201
 Name: _____
 Address: _____
 Name: _____
 Address: _____

COAL OWNER OR LESSEE

Name: Elemental Resources LLC
 Address: 1018 Kanawha Blvd E
Charleston, WV 25301-2841

MINERAL OWNER(s)

Name: See Attached List
 Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.05447 / -80.17807</u>
County: <u>Upshur</u>	Public Road Access: <u>County Route 1/11</u>
District: <u>Warren</u>	Watershed: <u>Pecks Run</u>
Quadrangle: <u>Century 7.5'</u>	Generally used farm name: <u>Russell W. Helton</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: CNX Gas Company, LLC
 Telephone: 304-884-2009, Amanda Langford
 Email: amandalangford@consolenegy.com

Address: P.O. Box 1248
Jane Lew, WV 26378
 Facsimile: 304-884-2245

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 DEPT. OF ENVIRONMENTAL PROTECTION
 FEB 04 2013

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.

Attachment to WW-6A3

CENT3HS Well Pad

Mineral Owner(s):

Joseph Grill /
RR 5 Box 198 BB
Buckhannon, WV 26201

Virginia Margaret White /
RT 5 Box 302
Buckhannon, WV 26201 /

Mack Frank Grill
1910 Longfield
San Antonio, TX 78248

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Office of Oil and Gas
FEB 04 2013
Erin M. ...
...

WW-6A5
(1/12)

Operator Well No. CENT3AHS

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.
Date of Notice: 01/28/2013 **Date Permit Application Filed:** _____

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

CERTIFIED MAIL **HAND**
RETURN RECEIPT REQUESTED **DELIVERY**

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

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Russell W. Hellon Name: _____
Address: RT 5 Box 198 Address: _____
Buckhannon, WV 26201 _____

Notice is hereby given:

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

State:	<u>West Virginia</u>	UTM NAD 83	Eastings:	<u>570,524</u>
County:	<u>Upshur</u>		Northings:	<u>4,323,401</u>
District:	<u>Warren</u>	Public Road Access:	<u>County Route 1/11</u>	
Quadrangle:	<u>Century 7.5'</u>	Generally used farm name:	<u>Russell W. Hellon</u>	
Watershed:	<u>Pecks Run</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator:	<u>CNX Gas Company, LLC</u>	Address:	<u>P.O. Box 1248</u>
Telephone:	<u>304-884-2009, Amanda Langford</u>		<u>Jane Lew, WV 26378</u>
Email:	<u>amandalangford@consolenergy.com</u>	Facsimile:	<u>304-884-2245</u>

Oil and Gas Privacy Notice:

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

Received
Office of Oil & Gas

FEB 11 2013

5035 0935 5003 6819 7011 3500 0000

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

K. Eddy

Postage	\$.66
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.31

Postmark Here: JAN 28 2013

Sent To: Russell W. Helton
 RT 5 Box 198
 Buckhannon, WV 26201
 Notice of Planned Operation &
 Notice of App- CENT3HS - Surface/water purv

PS Form 3800, August 2006 See Reverse for Instructions

5035 0935 5003 6819 7009 2250 0003

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

K. Eddy

Postage	\$.66
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.31

Postmark Here: JAN 28 2013

Sent To: Todd & Traci Payne
 RT 5 Box 197 A
 Buckhannon, WV 26201
 Notice of App-CENT3HS- Water Purv

PS Form 3800, August 2006 See Reverse for Instructions

6958 6789 8569 7009 2250 0003

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

K. Eddy

Postage	\$.66
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.31

Postmark Here: JAN 28 2013

Sent To: Elemental Resources LLC
 1018 Kanawha Blvd E
 Charleston, WV 25301-2841
 Notice of App - CENT3HS - Coal owner

PS Form 3800, August 2006 See Reverse for Instructions

6958 6789 8569 7009 2250 0003

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

K. Eddy

Postage	\$.66
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.31

Postmark Here: JAN 28 2013

Sent To: Patricia Ann & Samuel Christian
 RT 5 Box 197AA
 Buckhannon, WV 26201
 Notice of App-CENT3HS- Water Purv

PS Form 3800, August 2006 See Reverse for Instructions

6590 6789 8569 7009 2250 0003

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

K. Eddy

Postage	\$.66
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.31

Postmark Here: JAN 28 2013

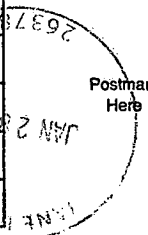
Sent To: Lionel R. & Toni C. Newman
 RT 5 Box 197
 Buckhannon, WV 26201
 Notice of App-CENT3HS- Water Purv

PS Form 3800, August 2006 See Reverse for Instructions

7009 2250 0003 6819 8637

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)
 For delivery information, visit our website at www.usps.com

OFFICIAL USE

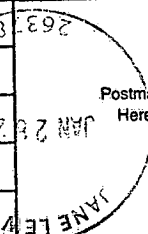
Postage	\$.66	
Certified Fee	3.10	
Return Receipt Fee (Endorsement Required)	2.55	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 6.31	

Sent To **Travis C. & Megan G. Bennett**
 Street, Apt. No. or PO Box No. **RR 2 Box 165D**
 City, State, ZIP+4 **Buckhannon, WV 26201**
 Notice of App-CENT3HS- Water Purv
 PS Form 3800, August 2005 See Reverse for Instructions

7009 2250 0003 6819 8637

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)
 For delivery information, visit our website at www.usps.com

OFFICIAL USE

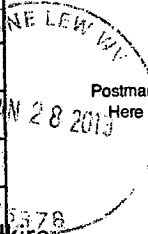
Postage	\$.66	
Certified Fee	3.10	
Return Receipt Fee (Endorsement Required)	2.55	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 6.31	

Sent To **Luetta J. & Walter V. Sinclair Jr.**
 Street, Apt. No. or PO Box No. **35 Pecks Run Rd**
 City, State, ZIP+4 **Buckhannon, WV 26201**
 Notice of App-CENT3HS- Water Purv
 PS Form 3800, August 2005 See Reverse for Instructions

7009 2250 0003 6819 8606

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)
 For delivery information, visit our website at www.usps.com

OFFICIAL USE

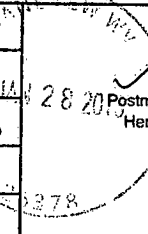
Postage	\$ 1.66	
Certified Fee	3.10	
Return Receipt Fee (Endorsement Required)	2.55	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 6.31	

Sent To **Christopher D. Alkire**
 Street, Apt. No. or PO Box No. **C/O WV Housing Dev. Fund**
 City, State, ZIP+4 **814 Virginia St. E. Charleston, WV 25301**
 Notice of App-CENT3HS- Water Purv
 PS Form 3800, August 2005 See Reverse for Instructions

7009 2250 0003 6819 851

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)
 For delivery information, visit our website at www.usps.com

OFFICIAL USE

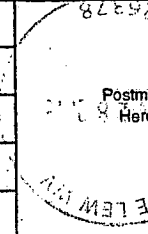
Postage	\$.66	
Certified Fee	3.10	
Return Receipt Fee (Endorsement Required)	2.55	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 6.31	

Sent To **Jeffrey & Jody Johnson**
 Street, Apt. No. or PO Box No. **RR 5 Box 197-C**
 City, State, ZIP+4 **Buckhannon, WV 26201**
 Notice of App-CENT3HS- Water Purv
 PS Form 3800, August 2005 See Reverse for Instructions

7009 2250 0003 6819 8644

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)
 For delivery information, visit our website at www.usps.com

OFFICIAL USE

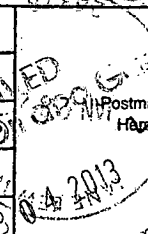
Postage	\$.66	
Certified Fee	3.10	
Return Receipt Fee (Endorsement Required)	2.55	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 6.31	

Sent To **James & Kim Lowther**
 Street, Apt. No. or PO Box No. **RR 5 Box 197-B**
 City, State, ZIP+4 **Buckhannon, WV 26201**
 Notice of App-CENT3HS- Water Purv
 PS Form 3800, August 2005 See Reverse for Instructions

7009 2250 0003 6819 8576

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)
 For delivery information, visit our website at www.usps.com

OFFICIAL USE

Postage	\$.66	
Certified Fee	3.10	
Return Receipt Fee (Endorsement Required)	2.55	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 6.31	

Sent To **Florinda Soles**
 Street, Apt. No. or PO Box No. **RR 5 Box 198-B-C**
 City, State, ZIP+4 **Buckhannon, WV 26201**
 Notice of App-CENT3HS- Water Purv
 PS Form 3800, August 2005 See Reverse for Instructions

7009 2250 0003 6819 8545

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 45
Certified Fee	295
Return Receipt Fee (Endorsement Required)	235
Restricted Delivery Fee (Endorsement Required)	5.75
Total Postage & Fees	\$ 575

K. Eddy

Russell W. Helton
 RT 5 Box 198
 Buckhannon, WV 26201
 CENT3-Notice of Plat Survey -
 Surface Owner

Postmark Here
 OCT 24 2012
 26378

For Instructions

7009 2250 0003 6819 8539

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 45
Certified Fee	295
Return Receipt Fee (Endorsement Required)	235
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 575

K. Eddy

Elemental Resources
 1018 Kanawha Blvd E
 Charleston, WV 25301-2841
 CENT3-Notice of Plat Survey -
 Coal Owner

Postmark Here
 OCT 24 2012
 26378

For Instructions

7009 2250 0003 6819 8521

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 45
Certified Fee	295
Return Receipt Fee (Endorsement Required)	235
Restricted Delivery Fee (Endorsement Required)	5.75
Total Postage & Fees	\$ 575

K. Eddy

Joseph Grill
 RR 5 Box 198 BB
 Buckhannon, WV 26201
 CENT3-Notice of Plat Survey -
 Mineral Owner

Postmark Here
 OCT 24 2012
 26378

For Instructions

7009 2250 0003 6819 8149

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 45
Certified Fee	295
Return Receipt Fee (Endorsement Required)	235
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 575

K. Eddy

Sent To
 Virginia Margaret White
 Street, Apt. No. or PO Box No. Rt 5 Box 302
 City, State, ZIP+4
 Buckhannon WV 26201 of Plat Survey - Mineral Owner

Postmark Here
 OCT 24 2012
 26378

PS Form 3800 August 2006 See Reverse for Instructions

7011 3500 0000 5003 0942

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 45
Certified Fee	295
Return Receipt Fee (Endorsement Required)	235
Restricted Delivery Fee (Endorsement Required)	5.75
Total Postage & Fees	\$ 575

K. Eddy

Mack Frank Grill
 1910 Longfield
 San Antonio, TX 78248
 CENT3-Notice of Plat Survey -
 Mineral Owner

Postmark Here
 OCT 24 2012
 26378

For Instructions

RECEIVED
 Department of Oil and Gas
 FEB 04 2013
 Environmental Protection

7111 3503 0000 005E TT02

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only - No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$.66
Certified Fee	3.10
Return Receipt Fee (Endorsement Required)	2.55
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.31

Postmark
Here

K. Eddy

Russell W. Helton
 RT 5 Box 198
 Buckhannon, WV 26201

Notice of Planned Operation &
Notice of App- CENT3HS - Surface/water pump

Instructions

RECEIVED
 Office of Oil and Gas
 FEB 04 2013
 BY: [Signature]
 [Title]

**OIL AND GAS ROAD
DISTRICT WIDE BONDING AGREEMENT
For DOH District 7**

THIS AGREEMENT, executed in duplicate, made and entered into this 20th day of March, 2012, by and between the WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, hereinafter called "DEPARTMENT," and CNX Gas Company, LLC, hereinafter called "COMPANY."

WITNESSETH:

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

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

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

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

I. For purposes of this Bonding Agreement, "Project Transportation Usage" of the Company shall be understood to mean use of one or more State Owned Roads for the delivery and removal of drilling materials and drilling equipment at the site or location of one or more of Company's horizontal gas well pad locations. To the extent reasonably practical, prior to commencing use of a State Owned Road for Project Transportation Usage after January 1, 2011, the Company shall submit to the Department a section or sections of current official WVDOH County Highway maps identifying the exact location of the proposed project and the State Owned Roads that the Company will utilize for the Project Transportation Usage.

II. Company and Department shall within 14 days of the Company's submittal, agree to a list of these sections of State Owned Roads, hereinafter called "Project Roads List", to be utilized for each of Company's projects, identified by route number and milepost; at a time to be mutually agreed to by the parties prior to initial commencement of Project Transportation Usage of a particular State Owned Road on a Project Roads List, the Company and Department will jointly review the condition of the roads and bridges on the Project Roads List. The Department will document the road type and surface condition and general right-of-way width of each section of road on the Project Road List. Either party may supplement this documentation with photographs, video or other evidence of the present condition of the road surface, shoulders, ditches, culverts, bridges or other structures or appurtenances of roads on the Project Road List, as well as approaches to the roads, utility facilities located within or along the right-of-way, or any other condition, including third-party activities, that may affect the duties and responsibilities of the parties under this Agreement. A copy of any such documentation must be made and provided to the other party within ten business days after the joint review of the roads on the Project Roads List.

III. Department shall issue a Project Agreement or Project Permit, as appropriate, to Company to use State Owned Roads and may include any minor or major improvements required of Company prior to, during or after Project with the assignment of responsibilities of

C. [unclear]
FEB 04 2013

both parties prior to, during and after the operator has completed well fracturing.

IV. In the Project Agreement/Project Permit, the Department shall not require the use of State Owned Roads other than the roads proposed by Company unless the Department has safety concerns as to the Company's proposed roads. A failure to agree on roads that may otherwise be lawfully used for a particular Project Transportation Usage shall result in the designation of the State Owned Roads proposed by Company, with milepost determinations as designated by Department. This Agreement shall only cover portions of State Owned Roads designated on the Project Roads List.

V. For the duration of Company's Project Transportation Usage of the Stated Owned Roads on the Project Roads List, whether by the Company, its contractors (while working on behalf of Company), agents, independent contractors or suppliers of drilling materials or drilling equipment, or employees, the Company agrees to pay for all reasonable maintenance and repair costs incurred by the Department to repair areas of the State Owned Roads included in the Project Roads List that were directly damaged by Company's Project Transportation Usage, as determined to be reasonably necessary and appropriate by the Department. The Department shall keep a record of all labor performed by Department employees and contractors for such maintenance and repairs and shall send an invoice for the same to Company.

VI. Company shall be responsible for the cost of all maintenance and repairs reasonably necessary to put the existing roadways, bridges and appurtenances on the Project Roads List utilized for the Project Transportation Usage in the condition that existed immediately prior to the Project Transportation Usage. Company shall not be required to pay for maintenance or repairs to put any areas of such roadways, bridges and appurtenances on the Project Roads List in a condition better than the condition that existed immediately prior to the Project Transportation Usage. Company shall also not be required to pay for maintenance or repairs to any areas of these roadways, bridges or appurtenances on the Project Roads List that are not actually utilized for the Project Transportation Usage or for damage not caused by Project Transportation Usage.

VII. Company shall notify the Department in writing of Company's final completion of Project Transportation Usage for particular roadways, bridges and appurtenances on the Project Roads List. Within fourteen days after its receipt of written notification of the completion of the Project Transportation Usage for all roads on a Project Roads List, the Department will review the condition of the roadways, bridges and appurtenances on the Project Roads List actually utilized for the Project Transportation Usage and advise Company of any final repairs reasonably necessary to leave these roads, bridges and appurtenances in a condition reasonably deemed by Department to be equal to their condition prior to commencement of Project Transportation Usage; and, upon completion of all such final repairs by or on behalf of Company and acceptance by Department, the Company shall be released from all further liability for maintenance or repairs to roads, bridges, or appurtenances on said Project Roads List. Any maintenance or repair work under the Project Agreement/Project Permit for roads, bridges or appurtenances on the Project Roads List may be performed by a contractor directly chosen by the Company as approved by the Department, the Department's workforce, or a private contractor hired by the Department through the public bid process in accordance with state law, all of which work shall be subject to the standards and specifications of the Department.

VIII. In order to ensure performance of Company's performance and payment obligations under this Bonding Agreement, the Company shall post a corporate surety bond, hereinafter called "Master Bond", with the Department named as the beneficiary, which form of bond shall be subject to the consent of the Department, not to be unreasonably withheld. The amount and form of the bond shall be in accordance with the Policy as set forth above. However, the amount of the Master Bond does not limit the amount of claims that may be made by the Department against the Company under this Bonding Agreement. The Company shall provide the Master Bond to the Department within one (1) month after the execution of this Bonding Agreement. The Master Bond shall secure the good faith performance of all payment obligations of Company under the terms of this Bonding Agreement respecting the roads, bridges and appurtenances on the Project Roads List for each Project Transportation Usage undertaken by the Company, and shall remain in effect until termination of this Agreement. Company shall not be obligated to provide any other bonds, sureties, or other guarantees of performance to the Department for Company's use of State Owned Roads, except as required in this Agreement.

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FEB 04 2013
E

IX. Company shall maintain Commercial General Liability Insurance in the amount of two million dollars, with a minimum coverage of one million dollars per occurrence, for personal injury or death to persons, or for property damage, resulting from Company's Project Transportation Usage and shall present evidence of such insurance to Department upon request.

X. Company's usage of State Owned Roads under the Project Agreement/Project Permit shall comply with all applicable Federal, State and local laws and regulations including, but not limited to, to the extent applicable, the National Environmental Policy Act, Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Rare, Threatened and Endangered Species Act, Section 401 Water Quality Certification, and hazardous waste requirements. Further, upon reasonable written request of Department, Company shall furnish Department with acceptable documentation of such compliance which is in the possession of the Company.

XI. Company shall defend, indemnify and hold Department harmless from and against any and all losses, damage, and liability, and from all claims for damages on account of or by reason of bodily injury, including death, which may be sustained, or claimed to be sustained, by any person or persons, including employees of Department, and from and against any and all claims, losses or liabilities for damages to property, arising out of the negligent or willful acts or omissions of Company, its agents, independent contractors and suppliers of drilling materials or drilling equipment, employees and contractors, in the performance of all Project Transportation Usage activities undertaken pursuant to this Agreement (collectively, "claims"). The Company shall not be responsible to indemnify, defend or hold harmless Department for any claims caused by the negligent or willful acts or omissions of the Department or its agents, employees and contractors or third parties not performing work at the direction of Company or delivering drilling equipment or drilling materials, including water, for use by or for company.

XII. If a provision of this Agreement is or becomes illegal, invalid or unenforceable in any jurisdiction, that shall not affect the validity or enforceability of any other provision of this Agreement; or the validity or enforceability in other jurisdictions of that or any other provision of this Agreement.

XIII. Department shall give Company a minimum of thirty days written notice of default under the terms of this Bonding Agreement and the opportunity to cure this default during such thirty-day period. If a default is not cured to the satisfaction of Department, or provision acceptable to Department is not made for a cure, Department may then elect to terminate this Bonding Agreement in whole or in part, and may in addition exercise its rights under the Master Bond or seek any other lawful relief available. Company may terminate this Bonding Agreement upon thirty days written notice to Department for any reason. In the event Company terminates this Agreement for any reason, it shall be liable for the repair and maintenance costs set forth above for prior Project Transportation Usage.

XIV. Nothing herein shall be construed to mean that Company shall have any jurisdiction or control over any public roads in the state road system.

XV. Company, its contractors, agents, employees and suppliers shall at all times be subject to applicable provisions of state and federal law, including without limitation laws requiring operation of vehicles in accordance with legal size and weight restrictions and posted weight limits. Oversize/overweight permits for vehicle or loads not otherwise conforming with law must be obtained in accordance with law; Department agrees to work in good faith with Company to review and grant (where authorized by law) such permits in a timely manner upon request by Company.

XVI. This Bonding Agreement shall be construed and enforced in accordance with the laws of the State of West Virginia, as they may be amended.

XVII. This Bonding Agreement shall be binding upon the successors and assigns of each party hereto.

01/04/2013

FEB 04 2013

IN WITNESS WHEREOF, the parties hereto have caused this Bonding Agreement to be executed by their duly authorized officers effective as of the date first above written.

WEST VIRGINIA DEPARTMENT OF
TRANSPORTATION,
DIVISION OF HIGHWAYS

Francis R. Leshner
Witness

By: Norma A. Murphy
State Highway Engineer

Samia A. Pitt
Witness

By: KTH
Title: Vice President - WV Operations

(To be executed in duplicate)

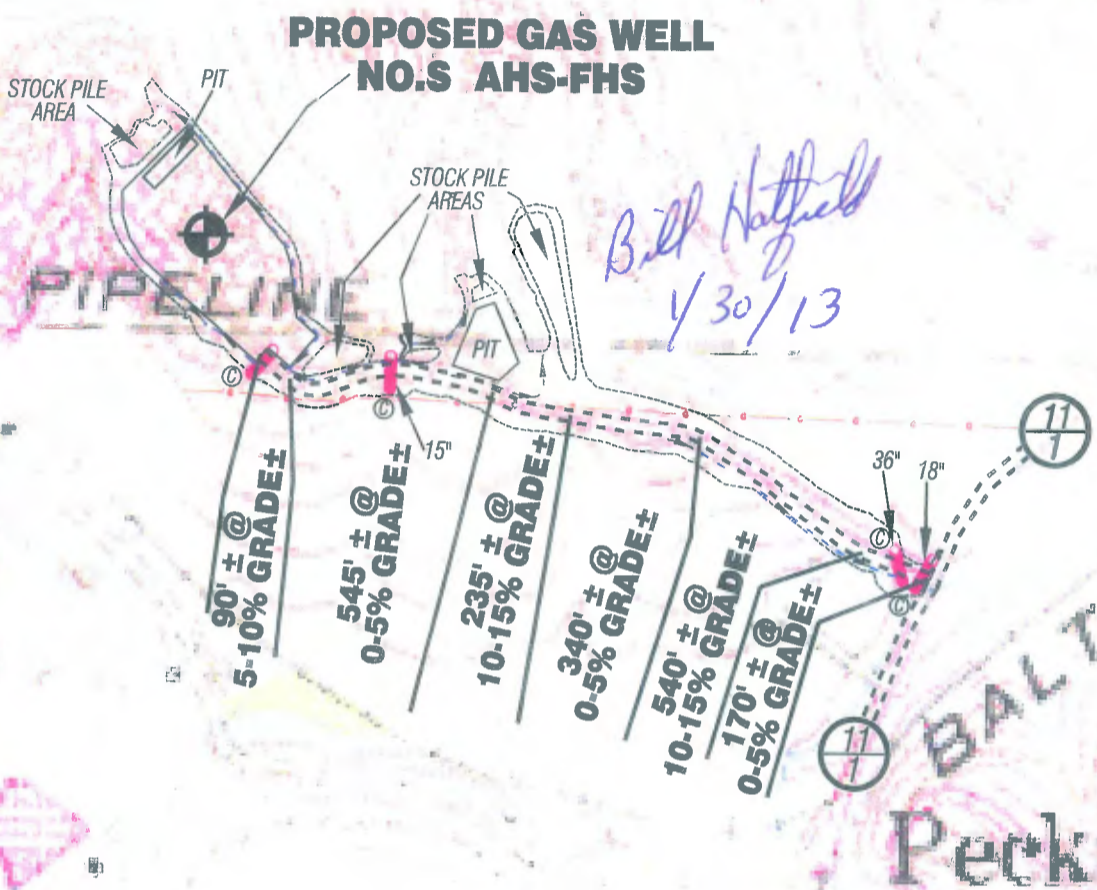
APPROVED AS TO FORM THIS
9th DAY OF March 2012

[Signature]
ATTORNEY LEGAL DIVISION
WEST VIRGINIA DEPARTMENT
OF HIGHWAYS

RECEIVED
Office of the State Auditor
FEB 04 2013

WEST VIRGINIA DEPARTMENT OF HIGHWAYS

V. WHITE LEASE CENT 3 WELL NO.S AHS-FHS

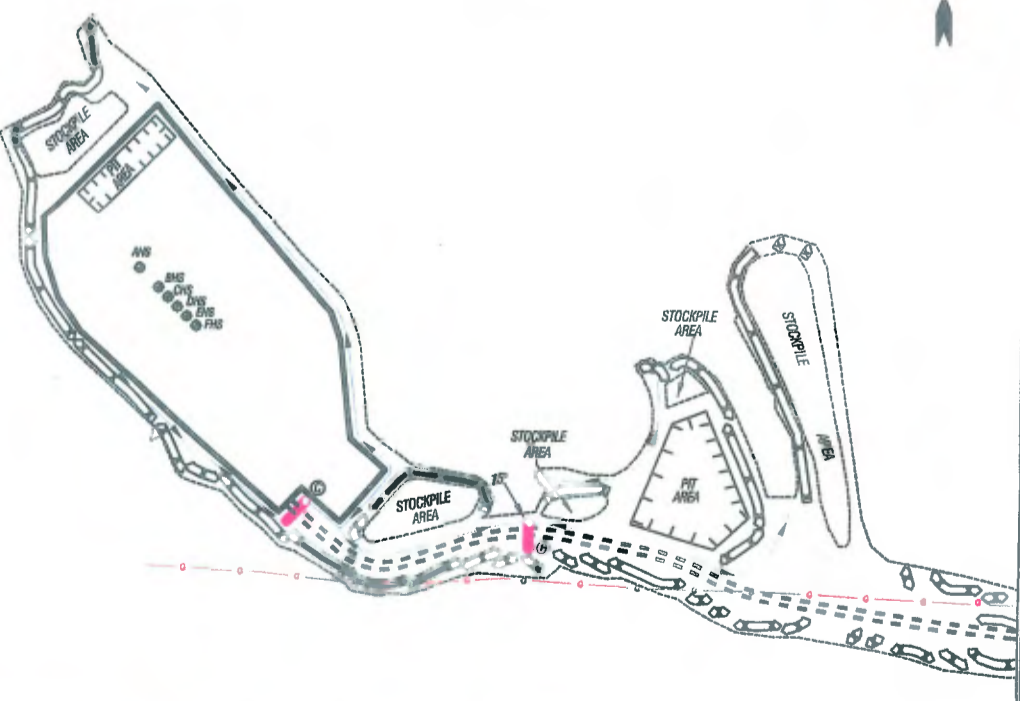


Detail Sketch for Proposed AHS-FHS Wells

NOTE: SEE SITE PLAN CENT3 FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.



SCALE: 1"=500'



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE O.D.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

- = EXISTING CULVERT
- = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING
- = APPROXIMATE LIMITS OF DISTURBANCE
- = COMPOST FILTER SOCK

Not To Scale

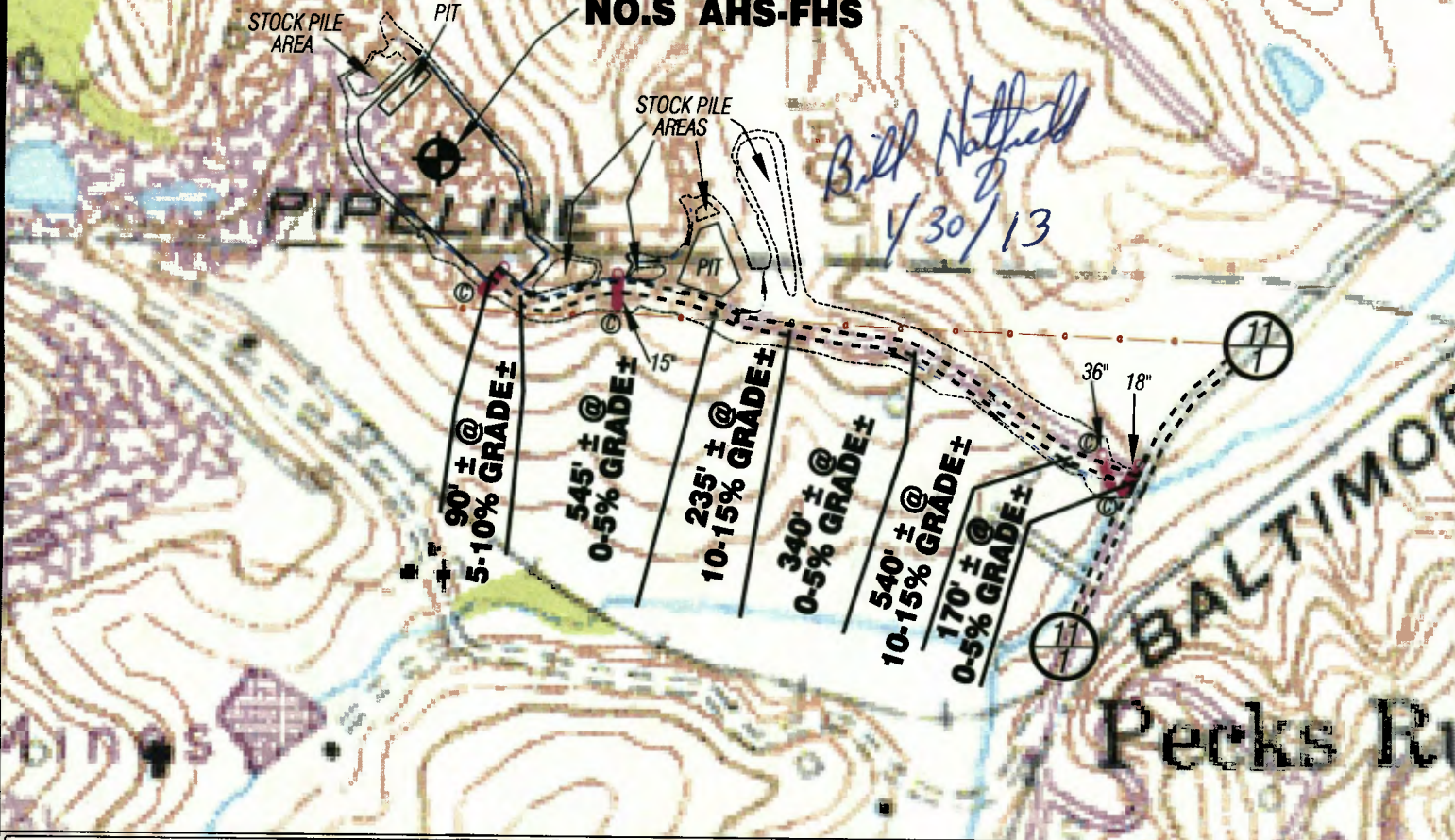
TOPO SECTION OF CENTURY 7.5'
USGS TOPO QUADRANGLE

SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV. 26351
PH: (304) 462-5634 FAX: (304) 462-5656 E-MAIL: sls@slssurveys.com

RAWN BY K.D.W.	FILE NO. 7898	DATE 01/25/13	CADD FILE: 7746REC-AHS.dwg
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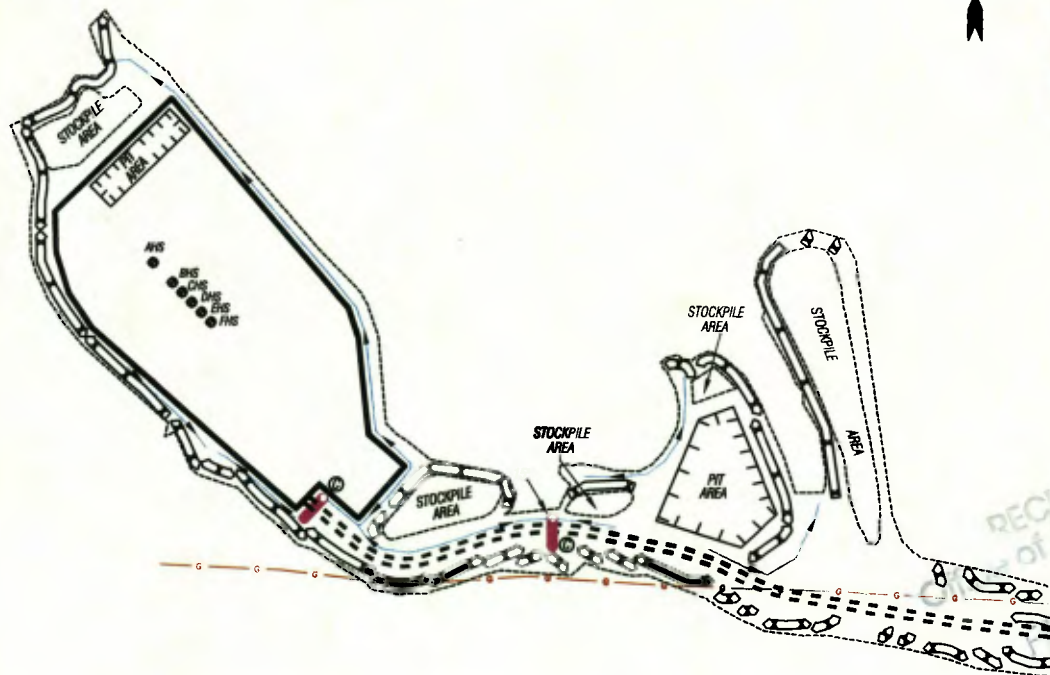
V. WHITE LEASE CENT 3 WELL NO.S AHS-FHS

PROPOSED GAS WELL NO.S AHS-FHS



Detail Sketch for Proposed AHS-FHS Wells

NOTE: SEE SITE PLAN CENT3 FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.



SCALE: 1"=500'



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

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- = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING
- = APPROXIMATE LIMITS OF DISTURBANCE
- = COMPOST FILTER SOCK

Not To Scale

TOPO SECTION OF CENTURY 7.5' USGS TOPO QUADRANGLE



SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV. 26351
PH: (304) 462-5634 FAX: (304) 462-5656 E-MAIL: sls@slssurveys.com

DRAWN BY K.D.W.	FILE NO. 7898	DATE 01/25/13	CADD FILE: 7746REC-AHS.dwg
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PERMIT NO. _____

PERMIT TO ENTER UPON, UNDER, OVER OR ACROSS THE STATE ROADS OF THE STATE OF WEST VIRGINIA, AS PROVIDED FOR IN SECTION 6, ARTICLE 16, CHAPTER 17; SECTION 9, ARTICLE 16, CHAPTER 17; SECTION 8, ARTICLE 4, CHAPTER 17, WEST VIRGINIA CODE, 1931, AS AMENDED.

THIS PERMIT, Made this 25th day of January 20 13, between the WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, a statutory corporation hereinafter called DIVISION and CNX Gas Company, LLC

Address: P.O. Box 1248, Jane Lew, WV 26378 Phone No: 304-884-2046
hereinafter called APPLICANT.

WITNESSETH

In consideration of the hereinafter set out covenants and in accordance with Section 6, Article 16, Chapter 17; or Section 9, Article 16, Chapter 17; or Section 8, Article 4, Chapter 17, of the Official Code of West Virginia, 1931, as amended, and the rules and regulations promulgated thereunder, APPLICANT does hereby apply to enter

Route Type & No. _____ Co. Rt. 1/11 DOH Project No. _____ (if applicable);
at 0.14+/- miles North of Junction Co. Rt. 4/7 in Warren District Mile Post _____

in Upshur County, for the purposes hereinafter set forth and in accordance with the plans and specifications which are attached hereto and made a part hereof: to utilize and maintain an entrance for ingress and egress on Co. Rt. 1/11 for the V. White Lease, Well No. CENT 3 AHS - FHS Oil and Gas Wells and Leasehold. Please see attached SLS detail sketch Plan & Profile View.

APPLICANT further agrees to accept the conditions hereinafter set forth:

1. APPLICANT shall deposit with DIVISION the sum of \$ 50,000.00 in the form of an official, certified or cashier's check, or executed bond with surety satisfactory to DIVISION to cover any damage and inspection costs DIVISION may sustain by reason of the granting of this permit, including any expense incurred in restoring said highway to its original condition or the proper repair of any and all damages that may result within one (1) year from the date of the completion of said work.
2. APPLICANT agrees to reimburse DIVISION for inspection costs as follows:
 - A. For any inspection costs incurred under this permit.
 - B. At \$ _____ per linear foot for _____ feet of water line installed under this permit
 - C. At \$ _____ per linear foot for _____ feet of sewer line installed under this permit
3. APPLICANT shall notify DIVISION at least 48 hours in advance of the date the work will begin. Failure to comply will be cause for cancellation of this permit.
4. APPLICANT agrees to protect its employees, equipment and users of the highway at all times in accordance with the current Division of Highways manual "Traffic Control For Street and Highway Construction and Maintenance Operations"
5. APPLICANT agrees to comply with all applicable state and federal laws in the performance of work under this permit.
6. Supplementary conditions cited on the reverse side of this permit are understood and agreed to be a part hereof.
7. The work authorized under this permit shall be completed on or before (Date): January 25, 2014

Applicant's signature on this permit affirms that all text herein is a verbatim reproduction of The West Virginia Division of Highways Encroachment Permit Form MM-109, revision date May 19, 2005. All attachments are inclusive to this permit.

RECOMMENDED:

Title _____

C. Victor Meyers, Agent
Signature and Title of Applicant

BOND REQUIREMENT:

BOND NO. CMS213855 DATE 05/31/2011
Attached On File

APPROVED

INSPECTION: Owner/Consultant
Full Time Part Time
Periodic Reimbursable No Cost

Title _____
West Virginia Division of Highways

AUTHORIZATION NO: _____

PERMIT NO: _____

CHIEF OF DIVISION
FEB 04 2013
E. J. [unclear]

CHAPTER 17 WEST VIRGINIA CODE, 1931

§17-4-8. Use of roadbed by railroad, telephone company, etc.

No railroad or electric or other railway shall be constructed upon the roadbed of any state road, except to cross the same, nor shall any person, firm or corporation enter upon or construct any works in or upon such road, or lay or maintain thereon or thereunder any drainage, sewer or water pipes, gas pipes, electric conduits or other pipes, nor shall any telephone, telegraph or electric line or power pole, or any other structure whatsoever, be erected upon, in or over any portion of a state road, except under such restrictions, conditions and regulations as may be prescribed by the state road commissioner. Whenever any railroad or electric or other railway, heretofore or hereafter constructed, shall cross any state road, it shall be required to keep its own roadbed, and the bed of the road or highway at such crossing, in proper repair, or else to construct and maintain an overhead or undergrade crossing, subject to the approval of the state road commissioner; and the tracks of such railroad or railway at grade crossings shall be so constructed as to give a safe and easy approach to and across the same, and when the construction of such approaches is made necessary by a change in the railroad grade at the grade crossing, the cost shall be upon the railway company.

§17-16-6. Permit by commission or county court for openings in or structures on public roads; franchises and easements of oil, etc., transportation companies.

No opening shall be made in any state or county-district road or highway, nor shall any structure be placed therein or thereover, nor shall any structure, which has been so placed, be changed or removed, except in accordance with a permit from the state road commission or county court, as the case may be. No road or highway shall be dug up for laying or placing pipes, sewers, poles or wires, or for other purposes, and no trees shall be planted or removed or obstructions placed thereon, without the written permit of the commission or county court, or its duly authorized agent, and then only in accordance with the regulations of the commission or court. The work shall be done under the supervision and to the satisfaction of the commission or court; and the entire expense of replacing the highway in as good condition as before shall be paid by the persons to whom the permit was given, or by whom the work was done: Provided, however, That nothing herein contained shall be so construed as to prevent any oil or gas company or person having a proper permit or franchise from transporting oil or gasoline along any of the public highways of this State, nor to give such company a franchise without paying to the landowners through whose lands such road passes the usual and customary compensation paid or to be paid to the landowners for such right of way. Any grant or franchise when made shall be construed to give to such company or person only the right to use the easement in such public road.

A violation of any provision of this section shall be a misdemeanor, and the person or corporation violating the same shall, upon, conviction thereof, be fined not less than twenty-five nor more than one hundred dollars for each offense.

§17-16-9. Private driveways or approaches to roads; obstruction of ditches.

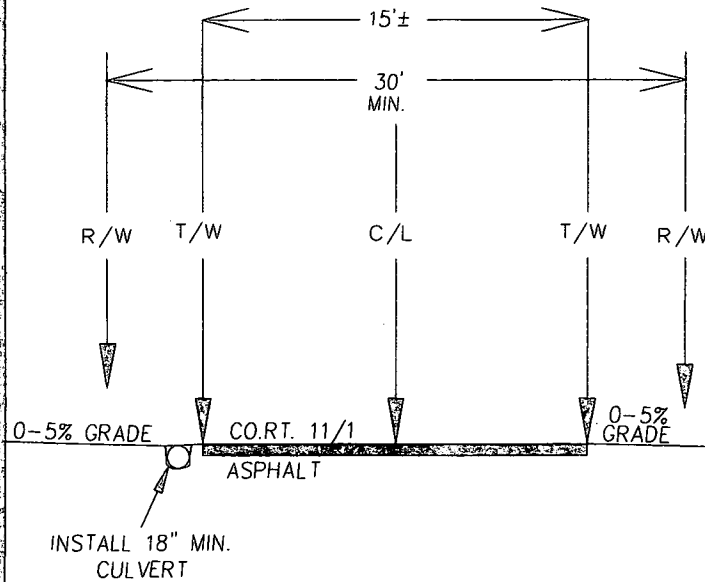
The owner or tenant of land fronting on any state road shall construct and keep in repair all approaches or driveways to and from the same, under the direction of the state road commission, and, likewise, the owner or tenant of land fronting on any county-district road shall construct and keep in repair approaches or driveways to and from the same, under the direction of the county road engineer, and it shall be unlawful for such owner or tenant to fill up any ditch, or place any material of any kind or character in any ditch, so as in any manner to obstruct or interfere with the purposes for which it was made.

SUPPLEMENTARY CONDITIONS

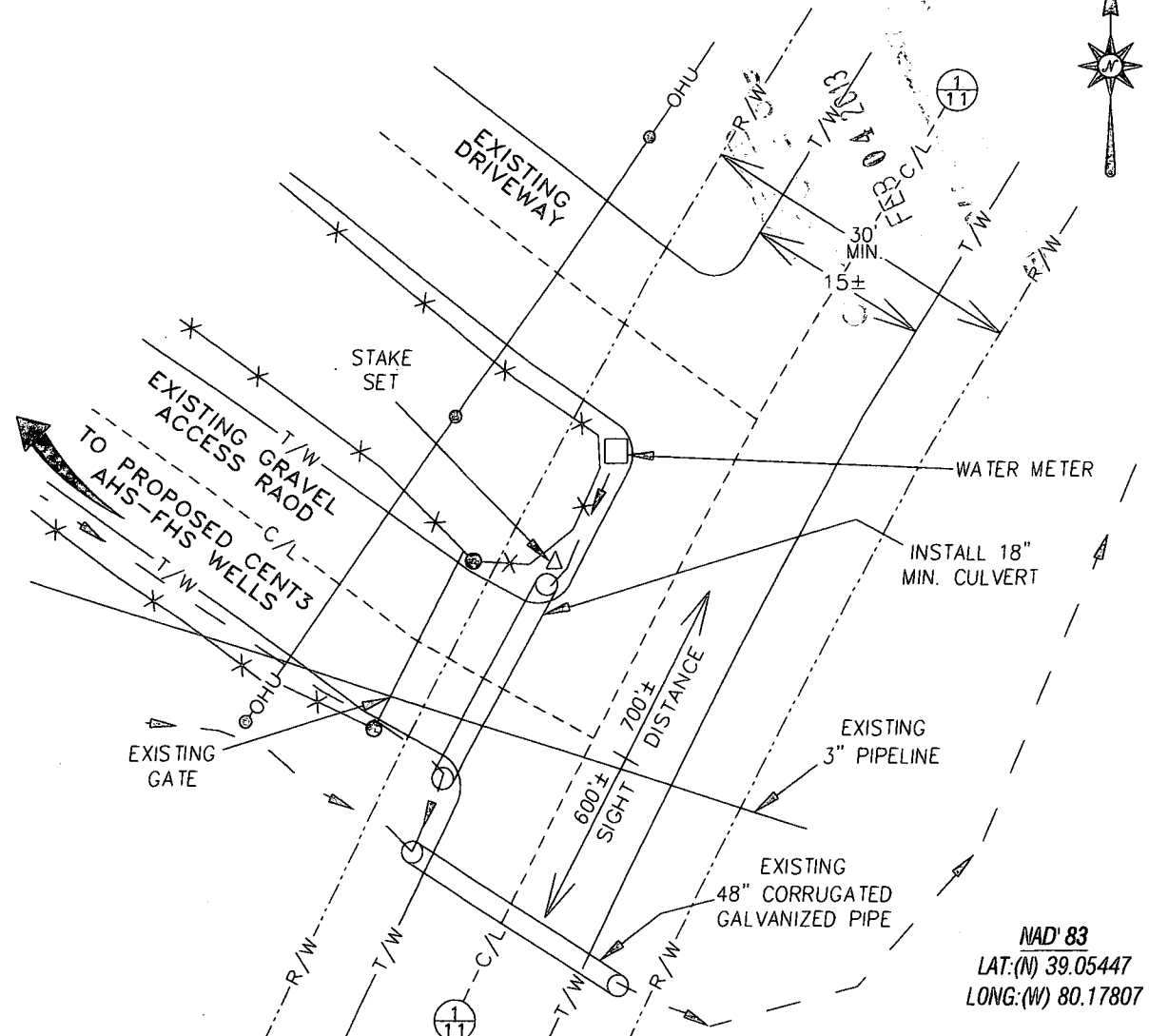
1. The person, firm or corporation to whom a permit is issued agrees to hold the State of West Virginia and DIVISION harmless on account of any damages to persons or property which may arise during the process of the work authorized by this permit or by reason thereof.
2. Applications for permission to perform work within highway rights of way shall be made on DIVISION'S standard permit form and shall be signed by the authorized representative of the person, firm or corporation applying.
3. The APPLICANT shall give detailed information concerning the work to be performed and the application must include a sketch sufficient to show the nature of the work performed.
4. APPLICANT, his agents, successor, heirs or assigns, contractors or any other person, firm or corporation working under APPLICANT'S real or apparent authority, shall perform the work in a manner satisfactory to DIVISION. Damage to the road resulting at any time from work authorized under this permit shall be repaired by APPLICANT. Unsatisfactory repairs may be corrected by DIVISION or its authorized agent and the cost thereof paid by APPLICANT.
5. DIVISION assumes no liability for damage to the proposed work by reason of construction or maintenance work on the road.
6. This permit is granted subject to removal of the authorized installation by APPLICANT at no cost to DIVISION when required for improvement of the road, and subject to all regulations now or hereafter adopted by DIVISION.
7. Utility installation shall be in accordance with the current manual, "Accommodation of Utilities on Highway Right of Way"
8. Driveways shall be in accordance with the current manual, "Rules and Regulations for Constructing Driveways on State Highway Rights-of-Way."
9. DIVISION reserves the right to cancel this permit at any time, should APPLICANT fail to comply with the terms and conditions under which it is granted.
10. This permit is granted only insofar as the DIVISION has a right to do so.

RECEIVED
DIVISION OF HIGHWAYS
FEB 24 2015
MARTIN COUNTY

APPROACH PROFILE (VIEW NORTH)



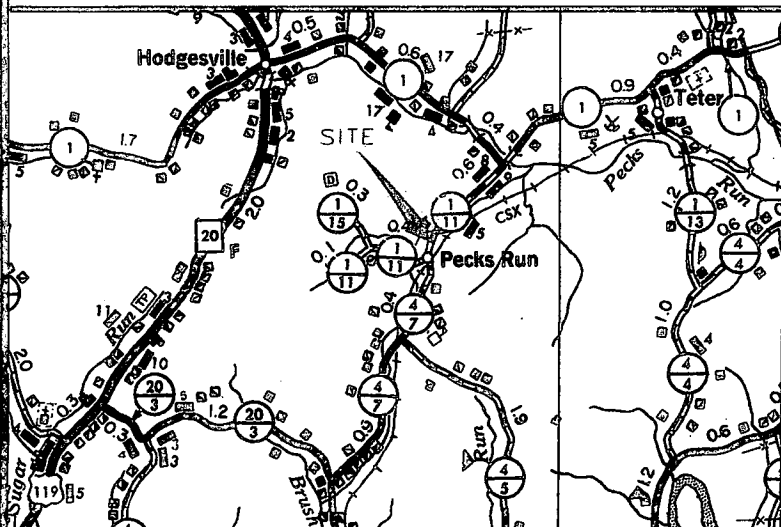
PLAN VIEW



NAD' 83
LAT: (N) 39.05447
LONG: (W) 80.17807

VICINITY MAP

SCALE: 1-INCH = 1-MILE



NOTES

ALL SPECIFICATIONS AS SET FORTH IN THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHTS OF WAY WILL BE OBSERVED.
DRAWINGS NOT TO SCALE.

ACCESS ROAD WAS FLAGGED IN PINK & WHITE MARKING RIBBON WITH WELL AND COMPANY NAME IDENTIFIED.

APPLY 100 FEET OF 8-INCH COMPACTED STONE ON AREA.

LEGEND

CENTERLINE OF ROAD C/L
RIGHT-OF-WAY R/W
TRAVELED WAY T/W
DRAIN/STREAM

PREPARED FOR:

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

CADD FILE

7868RDAP.DWG

K.D.W. 12/31/12

FIELD REVIEW

M.A.S

WELL NUMBERS

CENT'S AHS-FHS

DATE

12/18/12

PLAT OF PROPOSED ROAD APPROACH.

LOCATED ON CO. RT. 1/11 AT 0.14± MILES NORTH OF JUNCTION CO. RT. 4/7 IN WARREN DISTRICT UPSHUR COUNTY, WEST VIRGINIA.

PREPARED BY

SLS

SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV 26351

PH: (304)462-5634 FAX: (304)462-5656 E-MAIL: sls@sls-surveys.com

OIL and GAS DATA INFORMATION SHEET

APPLICANT

Company Name CNX Gas Company, LLC

Address One Energy Drive, P.O. Box 1248

City Jane Lew ST WV Zip 26378

Contact Person Permit Geoff Fanning Telephone 304-884-2046

24/7 Road Maintenance Contact Geoff Fanning Telephone 304-884-2046 Cell 304-376-8409

24/7 Backup Contact John Sampson Telephone 304-884-2046 Cell 304-777-7811

Drilling/ Fracking will require usage of _____ Less than 5000 Barrels of fluids 5000 /+

Site Location

Site Name CENT 3 Road Local Name Teter Run-Pecks Run Rte.# 1/11

Decimal Format GPS N: 39.05447 W: 80.17807 County Upshur

Location Description

On Rte. # 1/11 being 0.14 +/- miles N S E W of Jct. of Rte. # 4/7 and Rte. # 1/11

DOH USE ONLY HAULING ROUTE from US or WV Route (Attach Map)

Name & Rte.#	Beg MP	End MP	Surface Type	Condition
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____

RECEIVED
Office of the Director
FEB 04 2013
WV Department of Environmental Protection

Well location WGS83 Decimal Format GPS N: 39.05682 W: 80.18473

WV DEP Permit Number 47 - _____ - _____

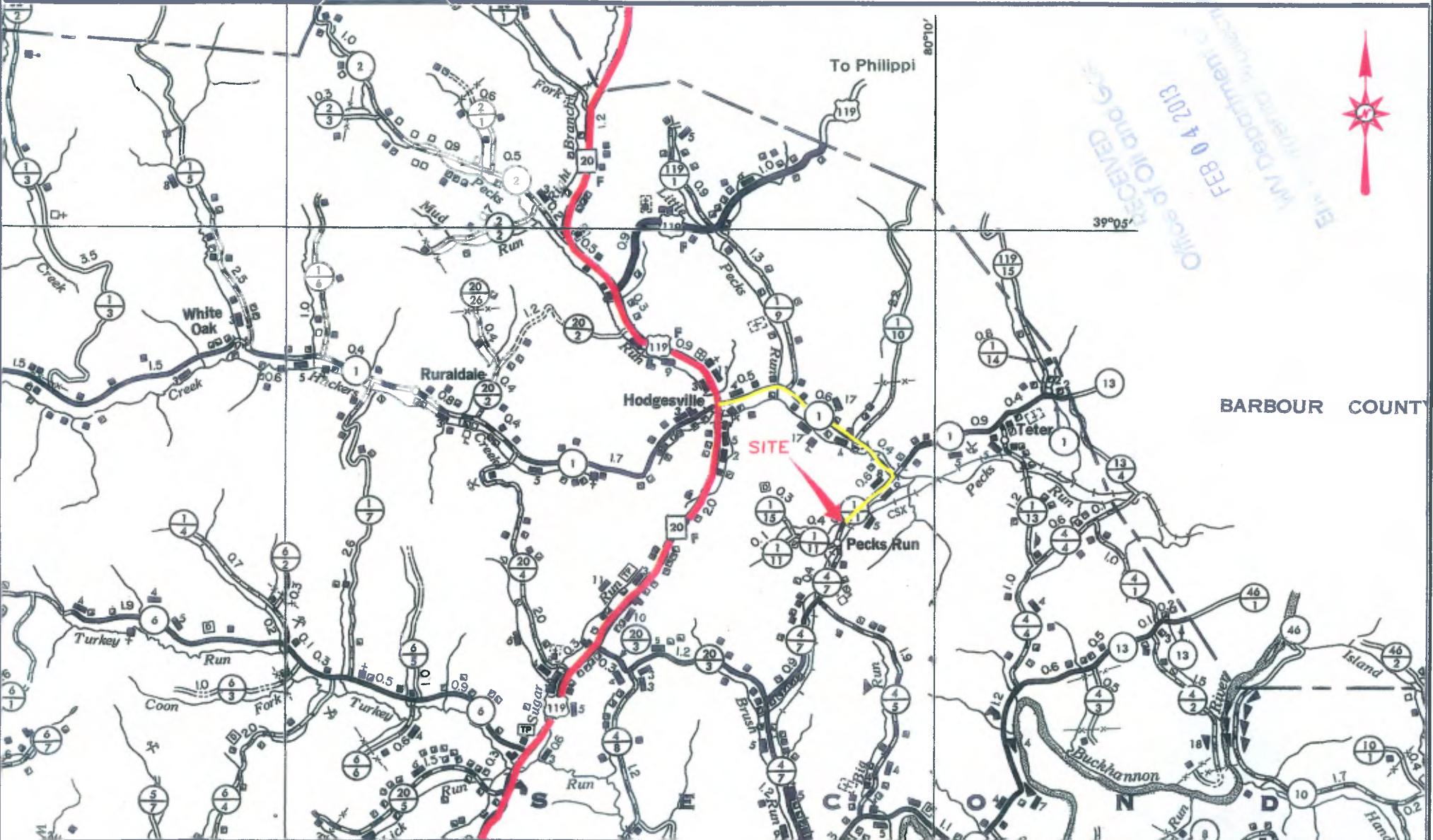
ACCESS TO WELL SITE

VICINITY MAP


SCALE: 1-INCH = 1-MILE



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 OFFICE OF OIL AND GAS
 FEB 04 2013
 WV Department of
 Environmental Quality



BARBOUR COUNTY

PREPARED FOR:	CNX GAS COMPANY, LLC P.O. BOX 1248 JANE LEW, WV 26378	CADD FILE 788RDAP.DWG 01-25-13 FIELD REVIEW C.P.M.	WELL NUMBERS CENT 3 AHS-FHS	DATE 01-25-13	ACCESS TO WELL SITE	PREPARED BY	
	ACCESS FROM <u>STATE ROUTE 20</u> SHOWN HEREON IN YELLOW.				SMITH LAND SURVEYING, INC. P.O. BOX 150 GLENVILLE, WV, 26351 PH: (304)462-5634 FAX: (304)462-5656 E-MAIL: sls@slssurveys.com		

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

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-nitrilopropionamide

CAS: 10222-01-2

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

CAS: 25322-68-3

Type: Scale Inhibitor (DAP-901)

1st Chemical Component as listed on MSDS: Methanol

CAS: 67-56-1

2nd Chemical Component as listed on MSDS: Phosphoric 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-936)

Chemical Component as listed on MSDS: Soap

CAS: N/A

Type: Hydrochloric Acid

Chemical 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 (DWP-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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Entrainment and Impingement Prevention Plan

The proposed withdrawal and intake will be made tamper-resistant and semi-permanent. The system shall consist of an onshore structural support, a submerged intake device, associated piping, an intake filter, quick-connect couplings and a jet pump. The intake device will be constructed with a Johnson Screens® intake screen or a similar product with maximum openings of 1/4 inch. The intake screen length and diameter will be sized accordingly to provide sufficient open area to maintain an intake velocity less than 0.5 feet per second. Using the Johnson Hi-Flow Screen, the opening area for an 8" diameter screen is 444 square inches. Assuming a maximum pumping rate of 1470 gallons per minute (gpm), a one 16" x 15" screen section will be more than adequate to maintain the design intake velocity with a margin of safety. The final screen length and diameter will be determined based on site conditions, pump selection and approved withdrawal volume.

The intake device will be connected to a jet pump using aluminum and/or corrugated plastic quick-connect piping and couplings. The intake piping will have a pressure rating of at least 150 pounds per square inch. The final piping diameter and length will be determined based upon the site conditions, pump selection and approved withdrawal volume. To secure the intake device the intake device will be placed on the bed of the stream. The intake will be designed to extend into a deeper portion of the stream. Submergence will detour low specific gravity items from entering. The cam-lock quick-connect couplings will be locked when not in use to prevent connection and unauthorized water withdrawal.

The selected jet pump will be either electric or diesel powered and capable of flow rates of 1470 gallons per minute (gpm). A flow limiting valve and/or orifice plate will be used to restrict the instantaneous flow rate. Final product selection and site design, including pump type, pipe sizing and anchoring will be determined based on site conditions and the permitted withdrawal volume but shall adhere to the requirements mentioned above.

The velocity of the strainer is 1.6 ft³/sec and the velocity of the basin is .315 ft³/sec compared to currents both are relatively low. The screen opening and intake velocity for water at the screens surface will prevent fish from being entrained or impinged on the screen. The intake screen size and dimensions were influenced by different swimming abilities of various species and age classes of fish present at the water withdrawal site. The watercourse will not be blocked to the passage of fish.

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The intake screen will be periodically monitored during operations to ensure that the screening has not collapsed to below the minimum distance between the water intake and screen surface, that there are no openings in the mesh or gaps between the mesh and frame of intake structure greater than 2.4 mm and that the screen has not become blocked by debris.

FEB 04 2013

INVASIVE SPECIES TRANSFER PREVENTION PLAN



Prepared: December 15, 2011

Consolidated
FEB 04 2013

Table of Contents

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 Define Vulnerable Receiving Environment 2

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Introduction

The invasion of aquatic habitats by non-indigenous species, also known as non-native and exotic species can compete with native species for food, habitat, and can directly or indirectly kill native species, degrade habitat, and alter food webs.

AIS may enter water bodies through various human assisted vectors¹. Oil and gas drilling activities associated with the withdrawal and transport of water may unknowingly introduce AIS into new waters.

Actions taken to prevent the introduction of new AIS will include best management practices for the withdrawal of water of streams and transport of water.

Purpose of the plan

The purpose of this BMP is to identify measures to deter the transfer of aquatic invasive species (“AIS”) between water bodies associated with oil and gas drilling activities. AIS are plants and animals that have been introduced into new ecosystems causing unintended environmental, recreational, economic or health impacts. This BMP will outline actions recommended to be newly implemented, in addition to existing efforts, in order to close pathways and prevent new aquatic invasive species from entering and becoming established.

Vector and Pathway Definition

A vector is a physical means by which a non-indigenous species is transported to a new region, primarily by humans, whether deliberate or accidental. Within a vector, one or more pathways or routes of transfer exist by which an invasive species is transferred from one ecosystem to another.

Various vectors provide a mechanism through which AIS may enter a water body. This BMP addresses potential AIS invasion.

¹ Vectors are the modes of transmission, and pathways are routes taken.

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Prevention

The most effective method of preventing the unintentional introduction of non-native species is to identify the pathways by which they are introduced and to develop environmentally sound methods to interdict introductions. Water intake structures and water transportation equipment have been identified as potential pathways in the oil and gas industry.

Define Vulnerable Receiving Environment

The receiving environment is that in which the activity takes place. This is taken to include any transit environments. It is important that all locations within the project site or operation area— not just the final destination – are considered. Areas outside the destination may include vehicles or infrastructure en route to the project or operation area.

Invasion of aquatic habitats by non-indigenous species via vehicles and/or machinery en route to the well location is not a concern within project areas as no stream crossings are located along the access road to the proposed well site and no in-stream work is required.

Awareness

Raising awareness of AIS among “on the ground” personnel (including oil and gas company staff and external contractors and service providers) has two main functions. Firstly, it increases the knowledge of AIS, which can help prevent their potential transmission, and secondly, it increases vigilance in detecting any infestations at an early stage – the only point at which eradication of an infestation is likely to be effective. Key species should be highlighted and personnel made aware of AIS (that are both visible and easily recognized) where the species have been a cause of concern. Where key AIS are not visible (eg. spores, fungi) ensure that the pathway and methods for preventing transmission are highlighted.

Existing or New AIS Infestation

Projects and operations are likely to be operating in environments where at least some AIS are already present. Measures should be taken to contain and prevent local transfer of the AIS. Where it is necessary or desirable to use infested areas, movement through the area should be limited as much as possible. Activities should be implemented to restrict AIS pathways.

**INVASIVE SPECIES TRANSFER
PREVENTION PLAN**

**CONSOL
ENERGY**

Monitoring should be undertaken to record any spread of infestation. If expansion of the population is recorded, investigation of the pathways responsible is encouraged.

Engineering Controls at Intake Assembly

Water intake shall include check valves, backflow preventers, or other alternatives designed to prevent a pathway of backflow water from water transportation equipment to the water source.

Cleaning/Drying of Equipment

The following procedures to prevent vectors and pathways should be performed in the withdrawal assembly, which should be relocated to another body of water:

1. The assembly should be dismantled into individual components.
2. All vegetation, mud, silt, sediment, and/or other debris shall be physically removed from each individual component.
3. Allow all individual components to remain continually dry and in the original waterbody's flood plain for a minimum of 5 days.

It is recommended that no biocides, algacides, or other chemicals be used to clean the assembly or its individual components at or near the water source without appropriate cautionary measures.

Early Detection and Rapid Response

Even the best prevention efforts cannot stop all introductions. Early detection of incipient invasions and quick coordinated responses will be used to eradicate or contain invasive species before they become too widespread. West Virginia Department of Environmental Protection (WV DEP) will be notified if initial evidence of an invasion is suspected. A professional biologist will assess the watershed for the suspected invasive species and provide a proper plan of eradication or containment.

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References:

Pennsylvania Fish and Boat Commission – Clean Your Gear.
www.fish.state.pa.us/cleanyourgear.htm

Sea Grants Invasive Species Inventory – www.pserie.psu.edu/seagrant/ais/

FEB 04 2013

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
BLANKET BOND FOR OIL OR GAS WELLS,
LIQUID INJECTION WELLS OR WASTE DISPOSAL WELLS

KNOW ALL MEN BY THESE PRESENTS:

(1) That we, CNX Gas Company LLC

(2) CNX Center, 1000 CONSOL Energy Drive, Canonsburg, PA 15317-6506

As Principal, and (3) RLI Insurance Company

(4) P.O. Box 3967, Peoria, IL 61612

a firm and/or a corporation authorized to do business in the State of West Virginia, as Surety, are held and firmly bound unto the State of West Virginia in the just and full sum of (5) two hundred and fifty thousand dollars (\$250,000) to the payment whereof well and truly to make, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bound Principal in pursuance of the provisions of Chapter 22, Article 6 and/or 6A, of the Code of West Virginia, 1931, as amended, and the regulations promulgated thereunder, has and/or intends to make application to the Chief of the Office of Oil and Gas, Department of Environmental Protection, the State of West Virginia for a permit to perform well work (as defined in Chapter 22, Article 6 and/or 6A), on oil or gas wells and/or liquid injection wells and/or waste disposal wells, or has acquired or purchased, or shall hereafter acquire or purchase such wells, or has been or shall be assigned operating responsibility, for such wells located in West Virginia; and

WHEREAS, THE Coligee as a condition precedent to the issuance of such Permit or release of other obligation has required the Principal to furnish a SURETY BOND acceptable to the Coligee guaranteeing the performance of said provisions of Chapter 22, Article 6 or 6A, of the Code of West Virginia, 1931, as amended, and the regulations promulgated thereunder;

NOW THEREFORE, the condition of this obligation is such that if the Principal, its personal representatives, successors, heirs and assigns shall in performing well work (as defined in Chapter 22, Article 6 and/or 6A) or operating such wells shall furnish all reports, information and affidavits as may be required by the Department of Environmental Protection, Office of Oil and Gas, documenting that said wells have been plugged and abandoned in accordance with Chapter 22, Article 6, of the Code of West Virginia, 1931, as amended, and the regulations promulgated thereunder, then this obligation to be void; otherwise to remain in full force and effect.

This bond shall be effective from the (11) 02nd day of May, 2012, until released by the Department of Environmental Protection.

IN WITNESS WHEREOF the said Principal has hereunder set his or its hand and affixed his or its seal, and the said surety has caused its corporate name to be signed hereto and its corporate seal to be hereunto affixed by its duly authorized officer or agent this instrument this (12) 02nd day of May, 2012.

(15) Principal (13) CNX Gas Company LLC (Seal)
Corporate Seal (Principal)

(14) By: Nicholas J. DeIuliis
(Title) Nicholas J. DeIuliis, Manager
(Must be President or V. President)

(18) Surety (16) RLI Insurance Company (Seal)
Corporate Seal (Surety)

(17) R. Sandra L. Hom
Sandra L. Hom, Attorney-in-Fact

19) Countersigned: N/A
(Resident West Virginia Agent)

(20) Address: _____

(21) Telephone: _____

FEB 04 2013

(REVERSE)

ACKNOWLEDGMENTS

Acknowledgment by Principal If Individual or Partnership

- 1. STATE OF _____
- 2. County of _____ to-wit:
- 3. I, _____, a Notary Public in and for the
- 4. county and state aforesaid, do hereby certify that _____ whose name is signed to the foregoing writing, has this day acknowledged the same before me in my said county.
- 5. Given under my hand this _____ day of _____ 20____.
- 6. Notary Seal _____
- 7. _____
- (Notary Public)
- 8. My commission expires on the _____ day of _____ 20____.

Acknowledgment by Principal If Corporation or Limited Liability Company

- 9. STATE OF Pennsylvania
- 10. County of Washington to-wit:
- 11. I, Kathryn A. Galie, a Notary Public in and for the
- 12. county and state aforesaid, do hereby certify that Nicholas J. DeIuliis
- 13. who as, Manager signed the foregoing writing for
- 14. CNX Gas Company, LLC a corporation/LLC, has this day, in my said county, before me, acknowledged the said writing to be the act and deed of the said corp/LLC.
- 15. Given under my hand this 3rd day of May 2012.
- 16. Notary Seal Notarial Seal
Kathryn A. Galie, Notary Public
(Upper St. Clair Twp., Allegheny County
My Commission Expires Oct. 1, 2015
- 17. [Signature]
- 18. My commission expires on the 31st day of October 2015.

Acknowledgment by Surety

- 19. STATE OF Missouri
- 20. County of St. Louis City to-wit:
- 21. I, JoAnn R. Frank, a Notary Public in and for the
- 22. county and state aforesaid, do hereby certify that Sandra L. Ham
- 23. who as, Attorney-In-Fact signed the foregoing writing for
- 24. RLI Insurance Company a corporation has this day, in my said county, before me, acknowledged the said writing to be the act and deed of the said corporation.
- 25. Given under my hand this 02nd day of May 2012.
- 26. Notary Seal Notary Seal
JOANN R. FRANK
State of Missouri
Commissioned for St. Louis City
My Commission Expires June 20, 2014
- 27. [Signature]
- 28. My commission expires on the 20th day of June 2014.

Sufficiency in Form and Manner Of Execution Approved

This _____ day of _____ 20____

Attorney General

By _____ (Assistant Attorney General)

FEB 04 2013



RLI Surety
 P.O. Box 3967 | Peoria, IL 61612-3967
 Phone: (800)645-2402 | Fax: (309)689-2036
 www.rlicorp.com

POWER OF ATTORNEY

RLI Insurance Company

Know All Men by These Presents:

That this Power of Attorney is not valid or in effect unless attached to the bond which it authorizes executed, but may be detached by the approving officer if desired.

That **RLI Insurance Company**, an Illinois corporation, does hereby make, constitute and appoint:

Pamela A. Beelman, Cynthia L. Choren, Heidi A. Notheisen, Debra C. Schneider, JoAnn R. Frank, Karen L. Roider, Sandra L. Ham,
 jointly or severally.

in the City of Saint Louis, State of Missouri its true and lawful Agent and Attorney in Fact, with full power and authority hereby conferred, to sign, execute, acknowledge and deliver for and on its behalf as Surety, the following described bond.

Any and all bonds provided the bond penalty does not exceed Twenty Five Million Dollars (\$25,000,000.00).

The acknowledgment and execution of such bond by the said Attorney in Fact shall be as binding upon this Company as if such bond had been executed and acknowledged by the regularly elected officers of this Company.

The **RLI Insurance Company** further certifies that the following is a true and exact copy of the Resolution adopted by the Board of Directors of **RLI Insurance Company**, and now in force to-wit:

"All bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or Agents who shall have authority to issue bonds, policies or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

IN WITNESS WHEREOF, the **RLI Insurance Company** has caused these presents to be executed by its Vice President with its corporate seal affixed this 11th day of July, 2011.



RLI Insurance Company

By: [Signature]
 Roy C. Die Vice President

State of Illinois }
 County of Peoria } SS

CERTIFICATE

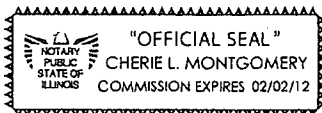
On this 11th day of July, 2011, before me, a Notary Public, personally appeared Roy C. Die, who being by me duly sworn, acknowledged that he signed the above Power of Attorney as the aforesaid officer of the **RLI Insurance Company** and acknowledged said instrument to be the voluntary act and deed of said corporation.

I, the undersigned officer of **RLI Insurance Company**, a stock corporation of the State of Illinois, do hereby certify that the attached Power of Attorney is in full force and effect and is irrevocable; and furthermore, that the Resolution of the Company as set forth in the Power of Attorney, is now in force. In testimony whereof, I have hereunto set my hand and the seal of the **RLI Insurance Company** this 02nd day of May, 2012.

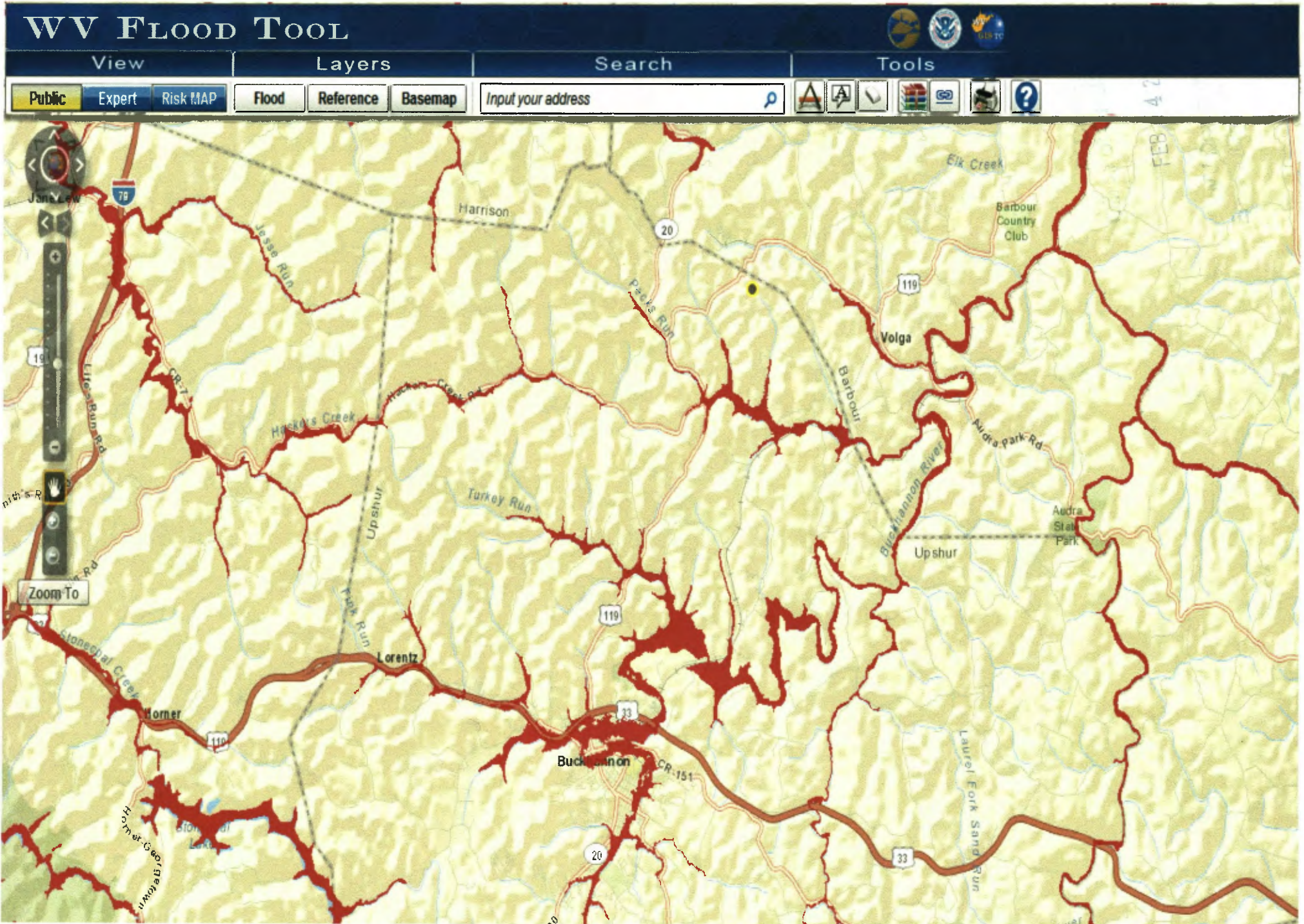
By: [Signature]
 Cherie L. Montgomery Notary Public

RLI Insurance Company

By: [Signature]
 Roy C. Die Vice President



FEB 04 2013



17. DIRECTIONS TO THE SITE

SEE PAGE 15 OF THE ATTACHED WETLAND DELINIATION REPORT FOR DIRECTIONS FROM THE PITTSBURGH USACE OFFICE

18. Nature of Activity (Description of project, include all features)

CNX GAS COMPLANY, LLC. PLANS TO CONSTRUCT A WELL PAD, DRILL PIT, ASSOCIATED IMPOUNDMENT, STOCKPILES FOR TOP SOIL AND EXCESS MATERIAL AND A PAD ACCESS ROAD ON THIS SITE. 1 CULVERT REPLACEMENT AND 2 NEW CULVERTS ARE PROPOSED ALONG THE ACCESS ROAD.

SEE ATTACHED TABLE/EXHIBIT "B" FOR PROPOSED STREAM ACTIVITY AND WETLAND IMPACTS.

SEE ALSO, ATTACHED SITE PLAN AND WETLAND REPORT FOR THE PROJECT.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

THE PROJEC IS TO ENHANCE/DEVELOP THE MARCELLUS SHALE GAS PRODUCTION. THE PROJECT WILL BEGIN ONCE ALL REQUIRED PERMITS ARE IN PLACE.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

CLEAN COMPACTED FILL WILL BE PLACED IN THE 6 WETLAND AREAS NOTED ON THE ATTACHED PLANS, EXHIBITS AND TABLE. CLEAN STONE FILL WILL BE PLACED AROUND THE 3 PROPOSED CULVERTS ALONG THE ACCESS ROAD.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
SEE ATTACHED TABLE OF MATERIAL	AND VOLUMES OF FILL MATERIAL	TO BE DEPOSITED

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres SEE THE ATTACHED TABLE FOR THE AREA AND LINEAR CALCULATONS FOR THE PROPOSED FILL AREAS
or
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

The site was designed taking all environmental concerns into account keeping the impacts to a minimum.

FEB 04 2013

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
WV DEP	PLC PERMIT				
WV DOH	ROAD APPROACH				
UPSHUR CO, WV	FLOOD PLAIN				
UPSHUR CO, WV	BUILDING				

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

OFFICE OF LAND AND STREAMS
STREAM ACTIVITY APPLICATION

1. Name of Applicant: CNX GAS COMPANY, LLC

2. Date: 01-30-13

3. Complete mailing address of applicant: P.O. BOX 1248 JANE LEW, WV 26378
Telephone Number: 304-884-2009 Fax Number: 304-884-2245
E-Mail Address: AmandaLangford@consolenergy.com

4. Name, address, telephone number, and title of applicant's authorized agent (i.e. contractor employed by landowner):
Amanda Langford-Permitting Supervisor (same as above)
Please if you want the approval sent to the agent (X)

5. Describe the proposed activity, its purpose and intended use after completion, type of equipment to be used in the stream, amount of material to be dredged (if any), plan for disposing of dredged materials, length of stream/bank to be worked or type and size of structure to be placed in the stream (i.e. length and width of bridge, diameter and length of culvert). **One copy of a map (topographical or detailed, hand-drawn) showing exact location of the work site (enabling Officials to locate site) must accompany this application**, and all other information that may be important to this application. (if additional space is required, continue on a separate sheet)

1. To construct three stream crossings along an existing well access road being unnamed tributaries of Pecks Run in Warren District, Upshur County. (See attached SLS map showing stream crossing on Exhibit A and the individual permanent stream crossing reports for each respective unnamed tributary crossing).
2. The stream crossings will be utilized for an access road to proposed gas well site Cent 3 for construction, production, and maintenance.
3. Point #1 as shown on attached map is an existing ephemeral stream crossing in which it is proposed to install a 15" CMP and will be 45' in length. (Please see Stream Crossing Report "A" page 21.)
4. Point #2 as shown on attached map is an existing culverted perennial stream crossing in which it is proposed to replace the existing 18" culvert and install a 42" CMP and will be 60' in length. (Please see Stream Crossing Report "B" page 21.)
5. Point #3 as shown on attached map is an existing ephemeral stream crossing in which it is proposed to install a 15" CMP and will be 68' in length. (Please see Stream Crossing Report "C" page 21.)
6. Typical equipment to be used for this project will be an excavator/backhoe.
7. This culvert will remain in place for the life of this access road and is to be monitored/maintained to ensure the stream remains flowing and the culvert entrance is free from debris.

OFFICE OF LAND AND STREAMS
FEB 04 2013
E. LANGFORD

6. Please check the proposed use: Private: _____ Public: _____ Commercial: X
(person use) (Government Agency) (Business)

7. Location where proposed activity exists or will occur:
Tributary of Pecks Run
Name of Water Way (if unnamed or unknown tributary, provide the stream that it flows into)
Upshur Warren Pecks Run
County District (taxable) Closest City or Town

8. Date activity is proposed to commence: March 1, 2013
Date activity is expected to be complete: May 31, 2013

9. Is any portion of the activity for which authorization is sought now complete? Yes _____ No X (If the answer is "Yes", give reasons in Section 5 including month and year the activity was completed)


10. Below is a list of entities that may require permits. Please list all approvals or certifications required by other Government Agencies for the above-described activity:

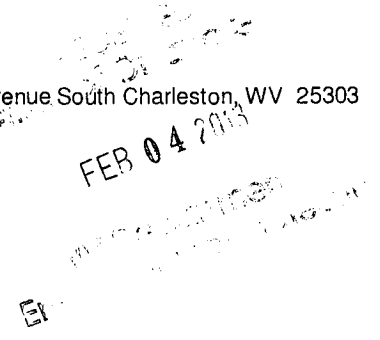
Issuing agency: Corps of Engineers – (304) 399-5710 (412) 395-7170 (412) 395-7157	Type of approval: _____
Identification No.: _____	Date of approval: <u>IN PROGRESS</u>
Issuing agency: County Commission Flood Plain Coordinator	Type of approval: _____
Identification No.: _____	Date of approval: <u>IN PROGRESS</u>
Issuing agency: City Government (if in City Limits the County isn't needed)	Type of approval: _____
Identification No.: _____	Date of approval: <u>IN PROGRESS</u>

11. Has any agency denied approval for the activity described herein? Yes _____ No X (if "Yes", explain in Section 5 and/or attach a copy of the denial)

12. If activity is a pipeline construction (that is, gas, water, or sewer) give:
Material pipeline is made of: _____
Size of Pipeline: _____
Maximum pressure of the pipeline: _____
Please provide the appropriate line number and if a Gathering or Well Line provide the A.P.I. Well Number:
Transmission: _____ Distribution: _____ Gathering: _____ Well Line: _____
A.P.I Well Number: _____

13. Application is hereby made for authorization to conduct the activities described herein. I certify that I am familiar with the information in this application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities.


Signature of Applicant or Agent Office of Land and Streams Building 74, Room 200 324 Fourth Avenue South Charleston, WV 25303
Phone Number 304-558-3225 Fax Number 304-558-6048

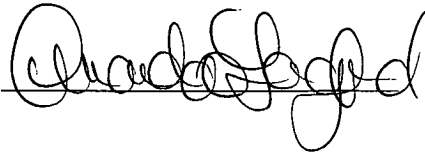


WW-6A7
(6-12)

OPERATOR: CNX Gas Company LLC WELL NO: CENT3AHS

PAD NAME: CENT3

REVIEWED BY: Amanda Langford

SIGNATURE: 

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR *Army Corps notified*
- DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
- DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
- DEP Waiver and Permit Conditions
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions

FEB 04 2013

Horizontal 6A Well Permit App. Checklist

OPERATOR: CNX Gas Company LLC

PAD NAME: Century 3 Pad WELL: Cent 3 AHS

PAD BUILT: YES NO DATE REVIEWED: _____ INT. _____

REVIEWED BY (APPLICANT): Amanda Langford

APPLICANT SIGNATURE: *Amanda Langford*

**CHECKLIST FOR FILING A PERMIT
HORIZONTAL 6A WELL**

Please include these required elements in the Horizontal Well 6A applications, in order listed below.
Do not use staples.

First Well	Subsequent Well
\$10,150.00 <input checked="" type="checkbox"/>	\$5,150.00 <input type="checkbox"/>

Fees

Checklist / Cover letter

~~WW-6B Notice of Application~~

Field Approved

Cement Additives

Well Bore Schematic

WW-6A Notice of Application notarized w/ any attachments

Public Notice (dated copy of advertisement or affidavit of publication)

WW-6AC Notice Certifications and Waivers

WW-6A3 Notice of Entry for Plat Survey

N/A WW-6A4 Notice of Intent to Drill

WW-6A5 Notice of Planned Operation

Registered Mail receipts

#2140629603
\$10,150.00

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Office of Oil and Gas
FEB 04 2013
WW Department
E-mail: permits@oag.state.tx.us

Horizontal 6A Well Permit App. Checklist

N/A WW-6RW Well Location Restriction Waiver

N/A WW-6AW Voluntary Statement of No Objection

 Waiver for Surface Owner at Wellhead

 Waiver for Surface Owner for Roads or other Disturbances

 Waiver for Coal Owner, Operator or Lessee

 Waiver for surface owner for Impoundment or Pit

 Waiver for Surface Owner or Water Purveyor within 1500 feet of Center of Pad

 Waiver for Natural gas Storage Field Operator

✓ WW-6A1

N/A Road Crossing Letter

✓ Road Bonding Agreement / DOH Certification

✓ WW-9

✓ Field Approved

✓ Frac Additives List of Chemical Names & CAS #s

✓ Site Safety Plan

✓ Field Approved

✓ Site Construction Plan *See attached EIS Plan* ✓ Field Approved

✓ Reclamation Plan (*WW9*) *See attached EIS Plan* ✓ Field Approved

✓ Erosion and Sediment Control Plan ✓ Field Approved

✓ Topographic Map w/water purveyors, showing access road

✓ Mylar Plat (Signed and sealed) (Surface Owner matches WW-6A)

N/A Within a Municipality (Emergency Rule)

N/A Class 1 Legal Advertisement for first permit on pad

✓ Water Management Plan

 DWWM Approval

✓ Copy of To Scale Plans *See attached EIS Plan*

✓ Inspector packet mailed to inspector (Plat, Topographic Map, WW-6B, WW-9, All Plans)

✓ Bond (\$250,000)

RECEIVED
Office of Oil and Gas
FEB 04 2013
EIS Document
Environmental Commission

Horizontal 6A Well Permit App. Checklist

- Operator is registered with the SOS
- Workers Compensation / Unemployment Insurance account is OK
- Professional Engineer/Company has COA
- Check for Mine Data at proposed coordinates
- Check for Floodplain Data at proposed coordinates
- WW-6A7 Well Restrictions Form w/ Signature

_____ At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland *Army Corps notified*

_____ DEP Waiver and Permit Conditions

At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream

_____ DEP Waiver and Permit Conditions

At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply

_____ DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled

_____ Surface Owner Waiver and Recorded with County Clerk, OR

_____ DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to the Center of the Pad

_____ Surface Owner Waiver and Recorded with County Clerk, OR

_____ DEP Variance and Permit Conditions

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad

_____ Surface Owner Waiver and Recorded with County Clerk, OR

_____ DEP Variance and Permit Conditions

RECEIVED
Office of Planning & Development
FEB 04 2013
ET. [unclear]
[unclear]



west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street SE
Charleston, WV 25304
Telephone Number: (304) 926-0495
Fax Number: (304) 926-0496

Earl Ray Tomblin, Governor
Randy C. Huffinan, Cabinet Secretary
dep.wv.gov

May 16, 2013

Mr. Mark A. Taylor
U.S. Army Corps of Engineers
Huntington District
Huntington, West Virginia
502 Eighth Street 25701-2070

Re: CNX GAS COMPANY, LLC
Cent03 Well Pad & Impoundment
USACOE Permit number: 2013-412
HUC 8: West Fork
Corps District: Pittsburgh
Upshur County, West Virginia

Dear Mr. Taylor:

The West Virginia Department of Environmental Protection-Division of Water and Waste Management (WVDEP-DWWM) received payment in the amount of \$26,400 to meet the mitigation requirements for the above referenced project: stream mitigation = 0 units ; wetland mitigation = 0.44 acres. The payment has been deposited in the WVDEP-DWWM In-Lieu Fee Program fund and will be held for later use in accordance with the ILF Instrument between the U.S. Army Corps of Engineers and the WVDEP.

Should you need any additional assistance or information you may contact me at your convenience.

Sincerely,

Glenn D. McLernon
In Lieu Fee Coordinator

cc:

Ms. Amanda Langford
One Energy Drive
Jane Lew, WV 26378

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Office of Oil and Gas

JUN 26 2013

WV Department of
Environmental Protection

RECEIVED MAY 10 2013



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PITTSBURGH DISTRICT, CORPS OF ENGINEERS
WILLIAM S. MOORHEAD FEDERAL BUILDING
1000 LIBERTY AVENUE
PITTSBURGH, PA 15222-4186

May 10, 2013

Operations Division
Regulatory Branch
LRP 2013-412

CNX Gas Company, LLC
Attn: Amanda Langford
One Energy Drive
Jane Lew, WV 26378

Dear Ms. Langford:

This letter is in response to your request for a preliminary jurisdictional determination, received on February 4, 2013 prepared by Green Rivers. A delineation of the Cent 3 Well Site and Access Road was performed by Green Rivers on September 26, 2012 and October 1, 2012.

The boundaries were verified by this office on April 3, 2013. You have requested a preliminary jurisdictional determination (PJD) for the proposed permit area. The waters listed in Table 5 and 6 (See Attached) are waters of the United States:

The U.S. Army Corps of Engineers authority to regulate waters of the U.S. is based, in part, on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act (CWA) requires that a Department of the Army (DA) permit be obtained prior to the discharge of dredged or fill material into waters of the U.S., including wetlands. Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for any work in, on, over or under a navigable water. In addition, our December 2, 2008 headquarters guidance titled "Revised Guidance on Clean Water Act Jurisdiction Following the U.S. Supreme Court Decision in Rapanos v. United States and Carabell v. United States" must be followed for the USACE to provide final verification of CWA jurisdiction.

Based on a review of the information provided, twelve (12) wetlands totaling 1.07 acres and six (6) streams totaling 237 linear feet are located within the proposed permit area. This office has determined that these waters **may** be jurisdictional waters of the United States in accordance with the Regulatory Guidance Letter for Jurisdictional Determinations issued by the U.S. Army Corps of Engineers on June 26, 2008 (RGL No. 08-02). As indicated in the guidance, this **PJD is non-binding and** cannot be appealed (33 C.F.R. 331.2) and only provides a written indication that waters of the U.S., including wetlands, may be present on-site.

At this time you have requested a Preliminary Jurisdictional Determination with an option to request an approved JD later. However, for the purposes of the determination of impacts, compensatory mitigation, and other resource protection measures for activities that

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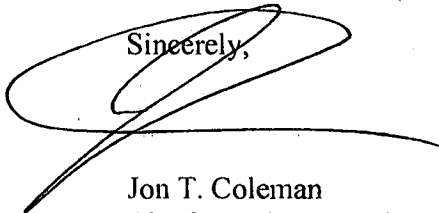
JUN 26 2013

WV Department of
Environmental Protection

require authorization from this office, the streams and wetlands identified above will be evaluated as if they are jurisdictional waters of the United States. Additional details concerning these waters may be found in the attached *Preliminary Jurisdictional Determination Form*.

If you have any questions, please contact Greg Currey at (412) 395-7517 or gregory.currey@usace.army.mil and reference project No. **LRP 2013-412** in all future correspondence with this office regarding this delineation.

Sincerely,



Jon T. Coleman
Chief, Southern Section
Regulatory Branch

Enclosures:

- Consol (Christy Mower)
- ✓ Smith Land Surveying (Thomas Meeks)
- Green Rivers
- WVDNR (Danny Bennett)
- USFWS (Laura Hill)
- | WVDEP (Wilma Reip)

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JUN 26 2013

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Environmental Protection

Uc— Udorthents, mudstone and sandstone, high base	Udorthents	The Udorthents component makes up 80 percent of the map unit and is found on hillslopes. Slopes are 35 to 80 percent with a linear concave or convex down-slope shape. Depth to a root restrictive layer is more than 80 inches. The natural drainage class is well drained with a capacity of the most limiting layer to transmit water (Ksat): moderately high to high (0.57 to 5.95 in/hr). This soil is not frequently flooded or ponded. Average depth to water table is more than 80 inches, and available water capacity is moderate (about 7.2 inches). <u>Typical profile</u> 0 to 3 inches: Very channery loam 3 to 65 inches: Very channery loam
VaC— Vandalia silt loam, 8 to 15 percent slopes	Vandalia	The Vandalia component makes up 80 percent of the map unit and is found on hillslopes and alluvial fans. Slopes are 8 to 15 percent with a linear concave or convex down-slope shape. Depth to a restrictive layer is more than 80 inches. The natural drainage class is well drained with a capacity of the most limiting layer to transmit water (Ksat): moderately high (0.06 to 0.57 in/hr). This soil is not frequently flooded or ponded. Average depth to water table is 33 to 42 inches, and available water capacity is moderate (about 7.8 inches). <u>Typical profile</u> 0 to 9 inches: Silt loam 9 to 44 inches: Silty clay loam 44 to 60 inches: Very channery silty clay

Table 4. Soil descriptions

Waters_Name	Cowardin _Code	HGM_Code	Area (acres) in AOI	Linear (ft) in AOI	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway
WWV-CEN3-001	PEM1	DEPRESS	0.45	N/A	NRPWW	39.057834	-80.185438	Wetland
WWV-CEN3-002	PEM1	DEPRESS	0.063	N/A	NRPWW	39.058708	-80.182083	Wetland
WWV-CEN3-003	PEM1	DEPRESS	0.051	N/A	ISOLATE	39.058105	-80.182278	Wetland
WWV-CEN3-004	PEM1	DEPRESS	0.013	N/A	ISOLATE	39.057728	-80.182314	Wetland
WWV-CEN3-005	PEM1	DEPRESS	0.102	N/A	ISOLATE	39.057492	-80.182453	Wetland
WWV-CEN3-006	PEM1	DEPRESS	0.016	N/A	NRPWW	39.056641	-80.182332	Wetland
WWV-CEN3-007	PEM1	DEPRESS	0.052	N/A	NRPWW	39.056056	-80.183058	Wetland
WWV-CEN3-008	PEM1	DEPRESS	0.006	N/A	ISOLATE	39.056040	-80.183440	Wetland
WWV-CEN3-009	PEM1	DEPRESS	0.0039	N/A	ISOLATE	39.056045	-80.183925	Wetland
WWV-CEN3-010	PEM1	DEPRESS	0.033	N/A	ISOLATE	39.056713	-80.184136	Wetland
WWV-CEN3-011	PEM1	DEPRESS	0.025	N/A	RPWWN	39.054699	-80.178465	Wetland
WWV-CEN3-012	PEM1	DEPRESS	0.254	N/A	NRPWW	39.056261	-80.181696	Wetland

Table 5. Waters Upload Sheet for twelve (12) delineated wetlands within the AOI

Waters_Name	Cowardin _Code	HGM_Code	Area (acres) in AOI	Linear (ft) in AOI	Waters Types	Latitude (dd nad83)	Longitude (dd nad83)	Local_Waterway
SWV-CEN3-001	U	N/A	N/A	26.0	NRPW	39.057546	-80.185799	UNT Pecks Run
SWV-CEN3-002	U	N/A	N/A	11.0	NRPW	39.055856	-80.183064	UNT Pecks Run
SWV-CEN3-003	U	N/A	N/A	5.0	NRPW	39.056724	-80.182115	UNT Pecks Run
SWV-CEN3-004	U	N/A	N/A	31.0	NRPW	39.058623	-80.181935	UNT Pecks Run
SWV-CEN3-006	R3UB1	N/A	N/A	84.0	RPW	39.054389	-80.178360	UNT Pecks Run
SWV-CEN3-007	R3UB1	N/A	N/A	80.0	RPW	39.054648	-80.178387	UNT Pecks Run

Table 6. Waters Upload Sheet for six (6) delineated streams within the AOI

RECEIVED
Office of Oil and Gas
CONSOL Century 3 Stream & Wetland Delineation Report
Privileged and Confidential

JUN 26 2013



Plat ✓

Received Date: 2/4/2013

API: 9703847

Operator: CNX GAS COMPANY LLC

WELL: CENT 3 AHS

Pad Name: CENT 3 HS

End Comment Period: 3/6/13

Pad Built: Yes No

Date Reviewed: 6-25-13 INT. LKC

(after deep well approval obtained on 6/17/13)

NOD in person 6/26 CHECKLIST FOR FILING A PERMIT

- needed:
- ✓ redesign pad - wetland
- ✓ ACOE letter of jurisdiction
- ✓ DWM letter of mitigation

Horizontal 6A Well

First Well	Subsequent Well
10,250.00 with pit <input type="checkbox"/>	5,250.00 with pit <input type="checkbox"/>
10,150.00 no pit <input checked="" type="checkbox"/>	5,150.00 no pit <input type="checkbox"/>

- Fees
- Checklist / Cover letter
- WW-6B Well Work Permit Application Field Approved
- Cement Additives
- Well Bore Schematic - *OK* - this is not a well bore schematic
- WW-6A Notice of Application notarized w/ any attachments
- Public Notice (dated copy of advertisement or affidavit of publication)
- WW-6AC Notice Certifications and Waivers
- WW-6A3 Notice of Entry for Plat Survey
- WW-6A4 Notice of Intent to Drill
- WW-6A5 Notice of Planned Operation
- Registered Mail receipts, Affidavits of Personal Service or Waivers
- WW-6RW Well Location Restriction Waiver
- WW-6AW Voluntary Statement of No Objection
 - Waiver for Surface Owner at Wellhead
 - Waiver for Surface Owner for Roads or other Disturbances
 - Waiver for Coal Owner, Operator or Lessee
 - Waiver for surface owner for Impoundment or Pit
 - Waiver for Surface Owner or Water Purveyor within 1500 feet of Center of Pad
 - Waiver for Natural gas Storage Field Operator

SSP ✓

2/26 - Emailed Amanda
LOB, line 16

3/4 - Rec'd

need letter -
from DOH
in future

- WW-6A1
- ~~OK~~ Road Crossing Letter - not going under any Rds
- Road Bonding Agreement / DOH Certification
- WW-9 Construction and Reclamation Plan Field Approved
- Frac additives with CAS#'s
- Site safety plan Field Approved
- Site Construction Plan - wetland Field Approved
- Reclamation Plan Field Approved
- Erosion and Sediment Control Plan Field Approved
- Topographic Map w/ water purveyors showing access road
- Mylar Plat (Signed and sealed) (Surface Owner matches WW-6A)
- Signed Restriction List
- Within a Municipality (Emergency Rule)
 - Class 1 Legal Advertisement for first permit on pad
- Water Management Plan DWWM Approval
- Copy of To Scale Plans
- Inspector packet mailed to inspector (Plat, Topographic Map, WW-6B, WW-9, All Plans)
- Comments
- Bond (\$250,000)
- Operator is registered with the SOS
- Workers Compensation / Unemployment Insurance account is OK
- Professional Engineer/Company has COA
- Check for mine data at proposed coordinates
- Check for floodplain data at proposed coordinates

Well Restrictions

At Least 100 Feet from Pad and LOD (including any ES Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland

DEP Waiver and Permit Conditions

At Least 300 Feet from Pad and LOD (including any ES Control Feature) to any Naturally Producing Trout Stream

DEP Waiver and Permit Conditions

At Least 1000 Feet from Pad and LOD (including any ES Control Feature) to any Groundwater Intake or Public Water Supply

DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to the Center of the Pad

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

* still near 1 wetland
but mitigated w/
DWNM for acreage
w/in 100'
adjusted pad/removed
pit to stay
>100' away fr
wetland
- mitigated for
other wetlands
w/DWNM
letter enclosed

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION

1) Well Operator: CNX Gas Company LLC 494458046 Upshur Warren Century
Operator ID County District Quadrangle

2) Operator's Well Number: CENT3AHS Well Pad Name: CENT3HS

3 Elevation, current ground: 1534' Elevation, proposed post-construction: 1536'

4) Well Type: (a) Gas Oil
Other _____
(b) If Gas: Shallow _____ Deep
Horizontal

5) Existing Pad? Yes or No: No

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):
Formation - Marcellus, Depth - 7815', Thickness - 90', Pressure - 3000#

7) Proposed Total Vertical Depth: 8205'

8) Formation at Total Vertical Depth: Huntersville Chert

9) Proposed Total Measured Depth: 14921'

10) Approximate Fresh Water Strata Depths: 85', 852', 945'

11) Method to Determine Fresh Water Depth: Reference offset wells

12) Approximate Saltwater Depths: None Reported

13) Approximate Coal Seam Depths: 945'

14) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

15) Does land contain coal seams tributary or adjacent to, active mine? No

16) Describe proposed well work: Drill and stimulate new horizontal Marcellus well. Well to be drilled to a TMD of 14921'. Well to be drilled to a TVD of 8205' for logging purposes, formation at TVD - Huntersville Chert. Well will be plugged back to an approximate depth of 7200' (approximate due to exact Kick of 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.

17) Describe fracturing/stimulating methods in detail:
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.

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): 12.46 Acres

19) Area to be disturbed for well pad only, less access road (acres): 9.74 Acres

Received

MAY 20 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

Rec'd 5/20/13

20)

CASING AND TUBING PROGRAM

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu. Ft.)
Conductor	20"	N	L.S.	81.3#	80'	80'	Grout to Surface
Fresh Water	13 3/8"	N	J-55	54.5#	1000'	1000'	CTS w/ Approved Class A Type Cement
Coal							
Intermediate	9 5/8"	N	J-55	36#	2500'	2500'	CTS w/ Approved Class A Type Cement
Production	5 1/2"	N	P-110	20#	14921'	14921'	2400 cu. ft. W/ 50/50 POZ Lead & Class A Tel
Tubing	2 3/8"	N	J-55	4.7#	8405'	8405'	
Liners							

Bill Halford 1/30/13

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
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	12640	Class A Type	1.26
Tubing	2 3/8"	8 3/4" & 8 1/2"	0.190	7700	-----	-----
Liners						

PACKERS

Kind:	None		
Sizes:	None		
Depths Set:	None		

RECEIVED
Office of Oil and Gas
FEB 04 2013
WV Department of Environmental Protection

Attachment - Form WW-6A-1 for CENT3AHS:

<u>Lease</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
✓ 066851	Virginia M. White & Joe Grill	Hope Natural Gas Company	1/8	33 / 446
	Mack F. Grill	Hope Natural Gas Company	Ratification	35 / 193
	Hope Natural Gas Company	Consolidated Gas Supply Corp	Merger/Name Change	185 / 646
	Consolidated Gas Supply Corp	Consolidated Gas Transmission Corp	Merger/Name Change	20 / 342
	Consolidated Gas Transmission Corp	CNG Transmission Corp	Merger/Name Change	20 / 531
	CNG Transmission Corp	Dominion Transmission, Inc.	Merger/Name Change	20 / 538
	Dominion Transmission, Inc.	Consol Energy Holdings	Merger/Name Change	51 / 285
	Consol Energy Holdings	Consol Gas Company	Merger/Name Change	20 / 388
	Consol Gas Company	CNX Gas Company LLC	Merger/Name Change	20 / 435
✓ 066850	Virginia M. White and Joe Grill	Hope Natural Gas Company	1/8	33 / 443
	Hope Natural Gas Company	Consolidated Gas Supply Corp	Merger/Name Change	185 / 646
	Consolidated Gas Supply Corp	Consolidated Gas Transmission Corp	Merger/Name Change	20 / 342
	Consolidated Gas Transmission Corp	CNG Transmission Corp	Merger/Name Change	20 / 531
	CNG Transmission Corp	Dominion Transmission, Inc.	Merger/Name Change	20 / 538
	Dominion Transmission, Inc.	Consol Energy Holdings	Merger/Name Change	51 / 285
	Consol Energy Holdings	CNX Gas Company LLC	Merger/Name Change	20 / 435
✓ 067843	Pecks Run Coal Company	Hope Natural Gas Company	1/8	34 / 515
	Hope Natural Gas Company	Consolidated Gas Supply Corp	Merger/Name Change	185 / 646
	Consolidated Gas Supply Corp	Consolidated Gas Transmission Corp	Merger/Name Change	20 / 343
	Consolidated Gas Transmission Corp	CNG Transmission Corp	Merger/Name Change	20 / 531
	CNG Transmission Corp	Dominion Transmission, Inc.	Merger/Name Change	20 / 538
	Dominion Transmission, Inc.	Consol Energy Holdings	Merger/Name Change	51 / 285
	Consol Energy Holdings	Consol Gas Company	Merger/Name Change	20 / 388
	Consol Gas Company	CNX Gas Company LLC	Merger/Name Change	20 / 435
✓ 066109	Joe Bozic and Mary Bozic	Hope Natural Gas Company	1/8	31 / 429
	Hope Natural Gas Company	Consolidated Gas Supply Corp	Merger/Name Change	185 / 646
	Consolidated Gas Supply Corp	Consolidated Gas Transmission Corp	Merger/Name Change	20 / 342
	Consolidated Gas Transmission Corp	CNG Transmission Corp	Merger/Name Change	20 / 531
	CNG Transmission Corp	Dominion Transmission, Inc.	Merger/Name Change	20 / 538
	Dominion Transmission, Inc.	Consol Energy Holdings	Merger/Name Change	51 / 285
	Consol Energy Holdings	Consol Gas Company	Merger/Name Change	20 / 388
	Consol Energy Holdings	CNX Gas Company LLC	Merger/Name Change	20 / 435
✓ 067930	Pecks Run Coal Company	Hope Natural Gas Company	1/8	35 / 60
	Hope Natural Gas Company	Consolidated Gas Supply Corp	Merger/Name Change	185 / 646
	Consolidated Gas Supply Corp	Consolidated Gas Transmission Corp	Merger/Name Change	20 / 343
	Consolidated Gas Transmission Corp	CNG Transmission Corp	Merger/Name Change	20 / 531
	CNG Transmission Corp	Dominion Transmission, Inc.	Merger/Name Change	20 / 538
	Dominion Transmission, Inc.	Consol Energy Holdings	Merger/Name Change	51 / 285
	Consol Energy Holdings	Consol Gas Company	Merger/Name Change	20 / 388
	Consol Gas Company	CNX Gas Company LLC	Merger/Name Change	20 / 435
✓ 078011	R.S. Ward and W.F May	W.C. Bond	1/8	31 / 79
	W.C. Bond	Delaware Gas Company	Assignment	3 / 423
	Delaware Gas Company	Consolidated Gas Supply Corp	Assignment	9 / 568
	Consolidated Gas Supply Corp	Consolidated Gas Transmission Corp	Merger/Name Change	20 / 342
	Consolidated Gas Transmission Corp	CNG Transmission Corp	Merger/Name Change	20 / 531
	CNG Transmission Corp	Dominion Transmission, Inc.	Merger/Name Change	20 / 538
	Dominion Transmission, Inc.	Consol Energy Holdings	Merger/Name Change	51 / 285
	Consol Energy Holdings	Consol Gas Company	Merger/Name Change	20 / 388
	Consol Gas Company	CNX Gas Company LLC	Merger/Name Change	20 / 435

RECORDED
 FEB 04 2013
 COUNTY OF DECATUR

V. WHITE LEASE WELL NO. CENT 3 AHS

**WELL NO. CENT 3 AHS
STATE PLANE COORDINATES
SOUTH ZONE (NAD '27)**

N. 749,980
E. 2,231,427

**LAT=(N) 39.05676
LONG=(W) 80.18510**

UTM (NAD '83)
N. 4,323,401
E. 570,524

A	MARCIE & RANDALL KIRCHBERG	25.47 AC±
B	MARCIE & RANDALL KIRCHBERG	18.638 AC±
C	KYLE & MARILYN LINGER	31.62 AC±
D	ROGER & BARBARA ZICKEFOOSE	13.994 AC±
E	LUETTA & WALTER V. SINCLAIR JR.	35.57 AC±
F	JAMELLA & JOHN LOCKWOOD	15.14 AC±
G	LUETTA & WALTER SINCLAIR	53.773 AC±
H	KELLY & RONALD AUSTIN	0.9 AC±
I	ROD & ROSA SHAVER	29.998 AC±
J	JOSEPH & MARY CARPINO	47.54 AC±
K	ERIC D. DENTON	1.85 AC±
L	PATRICIA & MARSHALL III TETRICK	1.626 AC±
M	RANDALL & MELISSA TOLLIVER	0.57 AC±
N	GARY WILSON	1.12 AC±
O	JOSHUA & TELENNA BENDER	2 AC±

**WELL NO. CENT 3 AHS
HEEL POINT
STATE PLANE COORDINATES
SOUTH ZONE (NAD '27)**

N. 749,727
E. 2,230,070

HEEL POINT (NAD '27)
LAT=(N) 39.05334
LONG=(W) 80.18992

HEEL POINT UTM (NAD '83)
N. 4,323,019
E. 570,111

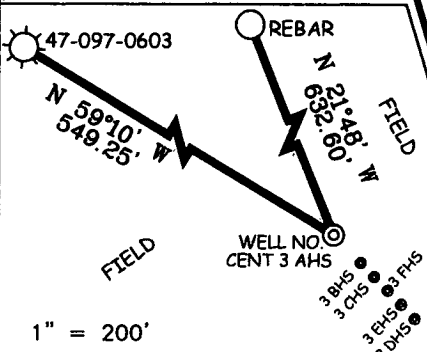
**WELL NO. CENT 3 AHS
TOE POINT
STATE PLANE COORDINATES
SOUTH ZONE (NAD '27)**

N. 743,841
E. 2,231,849

TOE POINT (NAD '27)
LAT=(N) 39.03989
LONG=(W) 80.18981

TOE POINT UTM (NAD '83)
N. 4,321,631
E. 570,653

REFERENCES



NOTES ON SURVEY

1. TIES TO WELLS, REFERENCES, AND CORNERS ARE BASED ON GRID SOUTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED BOOK 37 PAGE 342 AND ADJOINING DEEDS AND WELL PLATS.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF UPSHUR COUNTY IN JULY, 2012.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SURVEY GRADE).

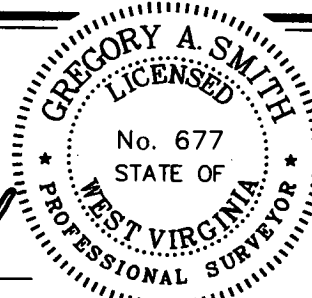
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE FEBRUARY 7, 20 13

OPERATORS WELL NO. WV 47-97-05847

API WELL NO. 47-97-05847

STATE WV COUNTY UPSHUR PERMIT 05847



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

P.S. 677 *Gregory A. Smith*

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7898P3AHSR4 (422-67)

PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE) SCALE 1" = 2000'

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

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1534.2' WATERSHED PECKS RUN

DISTRICT WARREN COUNTY UPSHUR QUADRANGLE CENTURY 7.5'

SURFACE OWNER RUSSELL HELTON ACREAGE 47±

ROYALTY OWNER V. WHITE ET AL LEASE ACREAGE 64, 133, 90, & 101±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS

ESTIMATED DEPTH TVD 8,205' / TMD 14,921'

WELL OPERATOR CNX GAS COMPANY, LLC. DESIGNATED AGENT JEREMY JONES

ADDRESS P.O. BOX 1248 ADDRESS P.O. BOX 1248

JANE LEW, WV 26378 JANE LEW, WV 26378



Water Management Plan: Primary Water Sources



WMP-01090	API/ID Number:	047-097-03847	Operator:	Consol Energy - WV
		CENT3AHS		

Important:

For each proposed primary water source (including source intakes for purchased water sources) identified in your water management plan, and summarized herein, DEP has made an evaluation concerning water availability over the specified date range. DEP's assessment is based on the following considerations:

- Statistical analysis of historical USGS stream gauge data (transferred to un-gauged locations as necessary);
- Identification of sensitive aquatic life (endangered species, mussels, etc.);
- Quantification of known existing demands on the water supply (Large Quantity Users);
- Minimum flows required by the Army Corps of Engineers; and
- Designated stream uses.

Based on these factors, DEP has provided, for each intake location (and origination point for purchased water), a reference gauge location and discharge flow reading which must be surpassed prior to withdrawals. Additionally, DEP has established a minimum passby flow at the withdrawal location which must also be surpassed prior to withdrawals. These thresholds are considered terms of the permit and are enforceable as such.

DEP is aware that some intake points will be used for mutiple wells and well sites. In these cases, the thresholds set by the Water Management Plan are to be interepreted as total withdrawal limits for each location over the specified date range regardless of how many wells are supported by that intake.

For all purchased water intakes, determinations of water availability are made at the original source intake location. It is the responsibility of the Oil and Gas Operator, not the seller, to cease withdrawal of water from the seller when flows are less than the minimum gauge reading at the stream gauge referenced by the Water Management Plan in order to protect stream uses.

Note that the determinations made herein are based on the best available data, but it is impossible to predict water availability in the future. While the DEP has carefully established these minimum withdrawal thresholds, it remains the operator's responsibility to protect aquatic life at all times. Approval to withdrawal is contingent upon permission from the land owner. It is the responsibility of the operator to secure and maintain permission prior to any withdrawals.

The operator is reminded that 24-48 hours prior to withdrawing (or purchasing) water, DEP must be notified by email at DEP.water.use@wv.gov.

VOID

APPROVED MAY 13 2013

Source Summary

WMP-01090

API Number:

047-097-03847

Operator:

Consol Energy - WV

CENT3AHS

Stream/River

o Source **Tygart Valley River** Owner: **Consol Energy**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
8/1/2013	8/1/2014	11,089,400		39.190421	-80.017423

Regulated Stream? Ref. Gauge ID: 3054500 TYGART VALLEY RIVER AT PHILIPPI, WV

Max. Pump rate (gpm): **1,470** Min. Gauge Reading (cfs): **355.01** Min. Passby (cfs) **344.41**

DEP Comments:

Source Detail

WMP- 01090

API/ID Number: 047-097-03847

Operator: Consol Energy - WV

CENT3AHS

Source ID: 14049 Source Name Tygart Valley River
Consol Energy

Source Latitude: 39.190421
Source Longitude: -80.017423

HUC-8 Code: 5020001

Drainage Area (sq. mi.): 931.43 County: Barbour

Anticipated withdrawal start date: 8/1/2013

Anticipated withdrawal end date: 8/1/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 11,089,400

Trout Stream?

Tier 3?

Max. Pump rate (gpm): 1,470

Regulated Stream?

Max. Simultaneous Trucks: 0

Proximate PSD? Taylor County PSD

Max. Truck pump rate (gpm)

Gauged Stream?

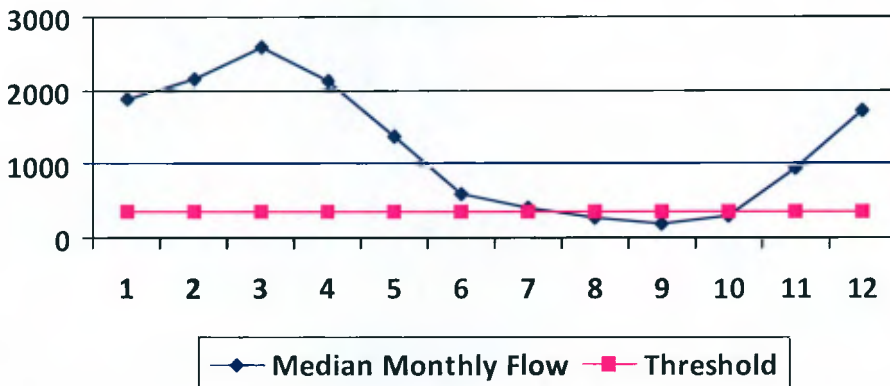
Reference Gaug 3054500 TYGART VALLEY RIVER AT PHILIPPI, WV

Drainage Area (sq. mi.) 914.00

Gauge Threshold (cfs): 341

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	1,901.06	361.51	1,542.64
2	2,155.51	361.51	1,797.09
3	2,600.93	361.51	2,242.51
4	2,132.23	361.51	1,773.82
5	1,375.48	361.51	1,017.07
6	586.10	361.51	227.69
7	402.01	361.51	43.59
8	280.57	361.51	-77.84
9	177.42	361.51	-181.00
10	286.75	361.51	-71.66
11	950.89	361.51	592.48
12	1,738.34	361.51	1,379.92

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 347.50

Upstream Demand (cfs): 10.73

Downstream Demand (cfs): 0.00

Pump rate (cfs): 3.28

Headwater Safety (cfs): 0.00

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): 355.01

Passby at Location (cfs): 347.50

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.