



west virginia department of environmental protection

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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Monday, May 15, 2017
WELL WORK PERMIT
Coal Bed Methane Well / Plugging

CONSOL GAS COMPANY (A)
1000 CONSOL ENERGY DRIVE

CANNONSBURG, PA 163176506

Re: Permit approval for 15377 A
47-021-05511-00-00

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

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

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin
Chief

Operator's Well Number: 15377 A
Farm Name: COASTAL LUMBER COMPANY
U.S. WELL NUMBER: 47-021-05511-00-00
Coal Bed Methane Well / Plugging
Date Issued: 5/15/2017

Promoting a healthy environment.

05/19/2017

PERMIT CONDITIONS

West Virginia Code §22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date 3-30, 2017
2) Operator's
Well No. 15377A
3) API Well No. 47-021 - 05511

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON A COALBED METHANE WELL

4) Well Type: Oil ___/ Gas x/ Liquid injection ___/ Waste disposal ___/
(If "Gas, Production x or Underground storage ___) Deep ___/ Shallowx

5) Location: Elevation 993' Watershed Steer Creek
District Center County Gilmer Quadrangle Normantown

6) Well Operator Consol Gas Company 7) Designated Agent Christopher Turner
Address 1000 Consol Energy Drive Address P.O. Box 1248
Canonsburg, PA 15317 Jane Lew, WV 26378

8) Oil and Gas Inspector to be notified Name Danny Mullins
Address 220 Jack Acres Rd
Buckhannon WV 26201
9) Plugging Contractor Name Coastal Drilling East LLC
Address 70 Gums Springs Road
Morgantown, WV 26508

10) Work Order: The work order for the manner of plugging this well is as follows:

See attached.

WORK ORDER TO PLUG A COALBED METHANE WELL.

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Danny Mullins Date 4-13-17

Bennett Heirs #15377A

Normantown, Gilmer County, WV

Original Completion: 11/04/2007

API# 47-021-05511

Elevation = 993'

Procedure:

1. Load Hole/Kill Well. Pump 6% gel if necessary
2. RIH with sand line/CCL to verify TD and depth of 7" casing. (TD@2041')(7" @1600')
3. TIH with 2 3/8" Workstring and set Class A Cement Plug from TD to Surface
4. Install monument with Well Name, API#, & Company Name. Monument must extend ~~30~~³⁶" min. above ground level and be ~~6~~⁷" in diameter. *PM*

NOTE: All Cement plugs will be Class A Cement, All Gel Spacers will be 6% Gel, all Perforations will have 100' spacing w/4 holes.

If it becomes necessary to deviate from this method, approval from the WV DEP Oil & Gas Division will be obtained before proceeding.

Work Order Approved By Inspector

Danny Mullins

Date

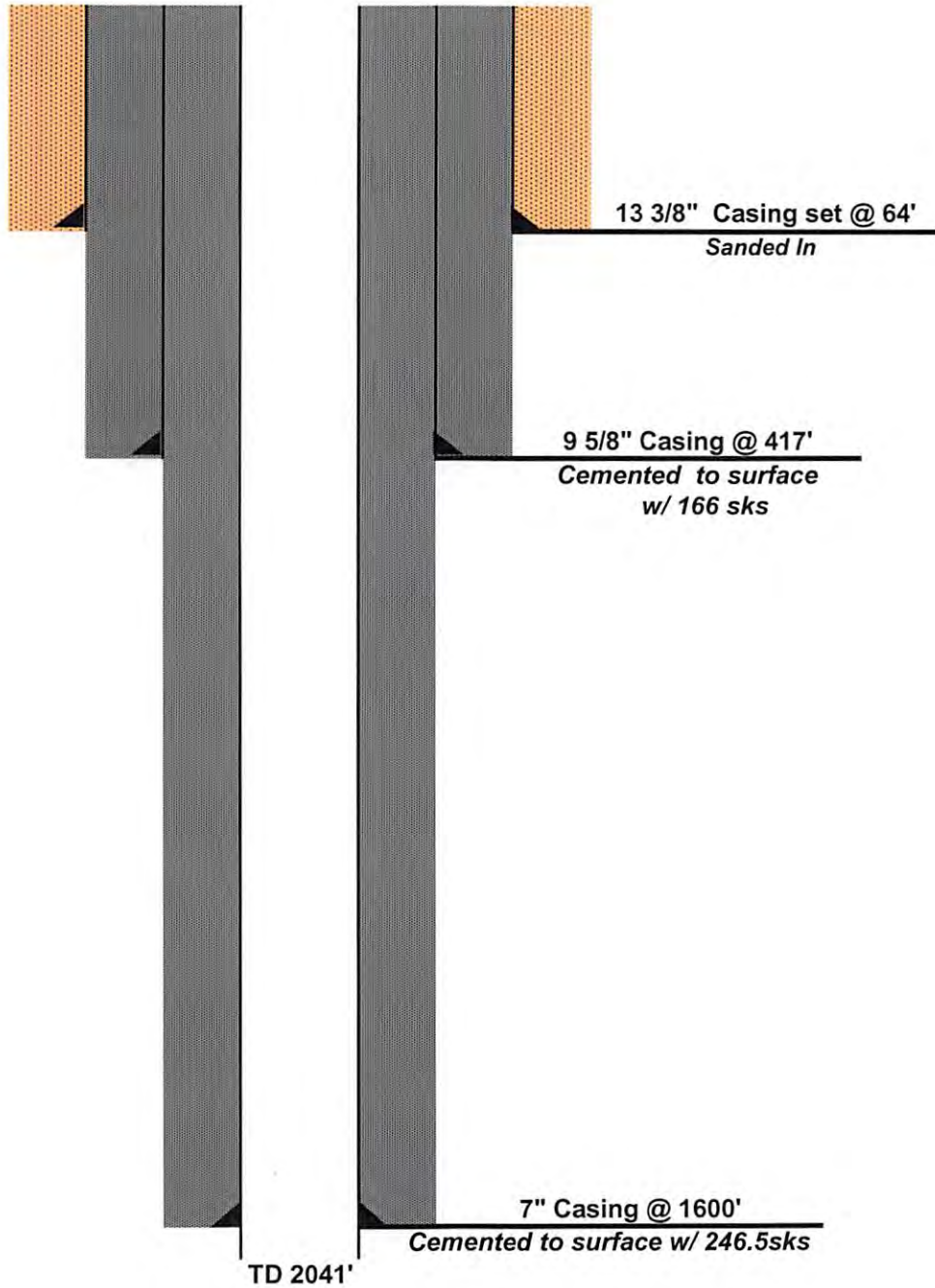
4-13-17

Louis Bennett Heirs #15377A--Coastal Lumber Company
Normantown, WV--Gilmer County

Original Completion : 11/04/2007

API # 47-021-05511

Elevation = 993'



210 5511 C P

WR-35
Rev (5-01)
Page 1 of 2

DATE: APR 09 2009
API No: 47-021-05511

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



Farm Name: COASTAL LUMBER COMPANY Operator Well No.: 15377A

LOCATION: Elevation: 993' Quadrangle: Normantown 7.5'

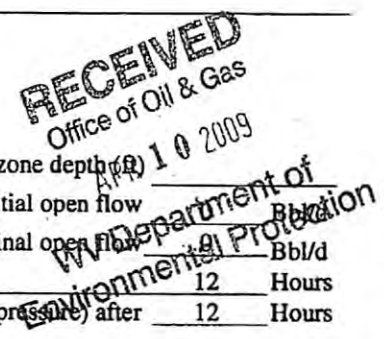
District: Center County: Gilmer
Latitude: 12,990 Feet South of: 38 Deg. 47 Min. 30 Sec.
Longitude: 10,670 Feet West of: 81 Deg. 57 Min. 30 Sec.

Company: Dominion Exploration & Production, Inc.

	Casing and Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: P.O. Box 1248 Jane Lew, WV 26378				
Agent: Rodney J. Biggs				
Inspector: David Gilbert				
Date Permit Issued: 9/20/2007				
Date Well Work Commenced: 10/30/2007	13 3/8"	64'	64'	Sand In
Date Well Work Completed: 11/04/2007				
Verbal Plugging:	9 5/8"	417'	417'	166 sks <i>CTS</i>
Date Permission granted on:				
Rotary X Cable Rig	7"	1600'	1600'	246.5 sks <i>CTS</i>
Total Depth (feet): 1675' GL				
Fresh Water Depth (ft.): N/A				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 782', 1199', 1213', 1216', 1227', 1323', 1334', 1340', 1395', 1420', 1545', 1594', 1659', 1680', 1758', 1800', 1853', 1896'				
Oil Depths (ft.): N/A				

OPEN FLOW DATA

Producing formation NO PRODUCTION FROM THIS WELL Pay zone depth (ft) _____
 Gas: Initial open flow N/A MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow N/A MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure N/A psig (surface pressure) after _____ Hours



Second Producing formation N/A Pay zone depth (ft) _____
 Gas: Initial open flow * _____ MCF/d Oil: Initial open flow * _____ Bbl/d
 Final open flow * _____ MCF/d Final open flow * _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure * _____ psig (surface pressure) after * _____ Hours

* **COMMINGLED WITH PREVIOUS FORMATIONS**
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: _____
By: Rodney J. Biggs
Date: 4/9/09

APR 09 2009

NOTE: These depths are from an adjacent CBM core hole, located within 25' of this 'A' Well.

Bennett CBM -- 'A' Well

Top of Strain Depth of Hole	Density of Overburden	Color of Strain	DESCRIPTION OF EACH STRATUM	Length in Ft. of Core Run
	Hardness of Rock		Drillers Classification Texture and Composition (Include Structure of Rock)	
00.00			CASING (RED & GREEN CLAY)	40.00
40.00			PLUGGED	361.00
401.00		RED & GREEN	SHALE	5.90
406.90			LOST CORE	3.60
410.50		RED & GREEN	SHALE	40.50
451.00		GREEN	SANDY SHALE	69.20
520.20		GREEN	SANDY SHALE	10.80
531.00		RED & GREEN	SHALE	22.50
553.50		GREEN	SANDY SHALE	17.50
571.00		RED & GREEN	SHALE	152.00
723.00		GRAY	SANDY SHALE	18.00
741.00		RED & GREEN	SHALE	30.00
771.00		GREEN	SANDY SHALE	6.40
777.40		GRAY	SHALE	2.00
779.40		DARK GRAY	SHALE	2.60
782.00			BONY COAL *****	1.10
783.10		DARK GRAY	SHALE	7.90
791.00		RED & GREEN	SHALE	32.30
823.30		GRAY	SANDSTONE	7.70
831.00		GREEN	SHALE	40.00
871.00		GREEN	SANDY SHALE	20.00
891.00		GRAY	SHALE	18.00
909.00		GRAY	SANDY SHALE	2.00
911.00		GRAY	SANDSTONE WITH QUARTZ PEBBLES	69.70
980.70		GRAY	SHALE	9.20
991.00		GRAY	SHALE	36.40
1027.40		GRAY	SANDY SHALE	3.60
1031.00		GRAY	SANDSTONE	52.70
1083.70		GRAY	SHALE	25.00
1108.70		GRAY	SANDY SHALE	22.30
1131.00		GRAY	SANDSTONE	55.80
1186.80		GRAY	SHALE	1.70
1188.50		GRAY	SANDSTONE	10.90
1199.40			COAL *****	0.10
1199.50		GRAY	SANDSTONE	12.90
1212.40		GRAY	SHALE	1.10

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WV Department of
Environmental Protection

7/05/19/2017

APR 09 2009

Length in Ft.	Core Run	DESCRIPTION OF EACH STRATUM		Color of Strata	Density of Overburden	Hardness of Rock	Top of Strata Hole
		Dieters Classification Texture and Composition (Include Structure of Rock)					
1213.50		COAL	*****				
1216.10		BONE					
1216.40		COAL	*****				
1218.40		FIRE CLAY					
1219.50		SANDY SHALE		GRAY			
1227.10		SHALE		GRAY			
1227.80		COAL	*****				
1229.60		SHALE		GRAY			
1243.30		COAL	*****				
1244.20		FIRE CLAY					
1250.00		SANDY SHALE		GRAY			
1251.00		SANDSTONE		GRAY			
1309.50		SHALE		GRAY			
1311.00		SHALE		DARK GRAY			
1323.30		COAL	*****				
1323.60		FIRE CLAY					
1325.80		SANDY SHALE		GRAY			
1331.00		SHALE		DARK GRAY			
1334.10		COAL	*****				
1334.70		BONE					
1334.80		COAL	*****				
1335.20		SHALE		GRAY			
1340.20		COAL	*****				
1340.30		FIRE CLAY					
1344.90		SANDY SHALE		GRAY			
1351.00		SHALE		GRAY			
1371.00		SANDSTONE		GRAY			
1395.50		COAL	*****				
1395.60		BONE					
1395.90		COAL	*****				
1396.20		SANDY SHALE		GRAY			
1398.20		SHALE		GRAY			
1411.00		SHALE		DARK GRAY			
1416.60		SHALE		GRAY			
1420.10		BONE					
1420.70		COAL	*****				
1421.55		SHALE		DARK GRAY			
1422.50		FIRE CLAY					

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APR 10 2009
Department of
Environmental Protection

21055110 P

21055117P

APR 09 2008

1703/6/15/07

Length in Ft.	Core Run	DESCRIPTION OF EACH STRATUM		Color	Density of Overburden	Hardness of Rock	Top of Stratum	Depth of Hole
		Dip Texture and Composition (Include Structure of Rock)	Dip Classification					
14.00		SANDY SHALE	GRAY				1427.00	
8.00		SANDSTONE	GRAY				1441.00	
12.00		SHALE	GRAY				1449.00	
16.80		SHALE	DARK GRAY				1461.00	
21.40		SHALE	GRAY				1477.80	
3.60		FIRE CLAY					1499.20	
18.20		SHALE	GRAY				1502.80	
10.40		SANDY SHALE	GRAY				1521.00	
3.30		SHALE	GRAY				1531.40	
0.90		BONY COAL					1534.70	
0.80		SHALE	DARK GRAY				1535.60	
2.30		SHALE	GRAY				1536.40	
3.00		SHALE	DARK GRAY				1538.70	
3.30		FIRE CLAY					1541.70	
0.40		COAL					1545.00	
0.80		SHALE	GRAY				1545.40	
0.80		COAL					1545.20	
1.40		COAL					1594.50	
1.40		SHALE	GRAY				1595.90	
6.50		FIRE CLAY					1597.30	
37.20		SANDY SHALE	GRAY				1603.80	
18.20		SHALE	GRAY				1641.00	
1.30		COAL					1659.20	
0.50		LOST CORE (COAL)					1660.50	
5.00		SHALE	GRAY				1665.00	
9.20		SANDY SHALE	GRAY				1666.00	
5.00		SHALE	GRAY				1675.20	
1.00		COAL					1680.20	
19.80		SHALE	GRAY				1681.20	
2.80		SANDY SHALE	GRAY				1701.00	
31.80		SANDSTONE WITH QUARTZ PEbbLES	GRAY				1703.80	
7.60		SHALE	GRAY				1735.60	
15.60		SANDSTONE	GRAY				1743.20	
0.30		COAL					1758.20	
2.50		SANDY SHALE	GRAY				1758.50	

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Office of Oil & Gas
APR 10 2008

WV Department of Environmental Protection

WW-4A
Revised 6-07

1) Date: 3.30.17
2) Operator's Well Number
15377A
3) API Well No.: 47 - 021 - 05511

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Coastal Forest Resources</u>	Name _____
Address <u>P.O. Box 709</u>	Address _____
<u>Buckhannon WV 26201</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Bennett Land Management c/o Hunter M. Bennett, Jr.</u> ✓
_____	Address <u>PO Box 166</u>
_____	<u>Weston, WV 26452</u>
(c) Name _____	Name <u>Diann Andrews Register, Nicholas Edward Mecum, John Samuel Mecum, Audrey Diana Kellar</u> ✓
Address _____	Address <u>PO Box 1382</u>
_____	<u>Conover, NC 28613</u>
6) Inspector <u>Danny Mullins</u> ✓	(c) Coal Lessee with Declaration
Address <u>220 Jack Acres Rd</u>	Name _____
<u>Buckhannon WV 26201</u>	Address _____
Telephone <u>304-932-6844</u>	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator Consol Gas Company
 By: Christopher Turner *Christopher Turner*
 Its: Designated Agent
 Address 1000 Consol Energy Drive
Canonsburg, PA 15370
 Telephone (304) 884-2142

Subscribed and sworn before me this 30th day of March 2017
Cindy L. Kovach
 My Commission Expires 9/26/2021



Oil and Gas Privacy Notice

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

05/19/2017

WW-9
(5/16)

API Number 47 - 021 - 05511
Operator's Well No. 15377A

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Consol Gas Company OP Code 494495754

Watershed (HUC 10) Steer Creek Quadrangle Normantown

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Waste Management or Ryan Environmental will use vacuum trucks, and properly dispose of any fluid or waste returns)

Will closed loop system be used? If so, describe: no

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

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

Additives to be used in drilling medium? na

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. na

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

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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

Company Official Signature Christopher Turner

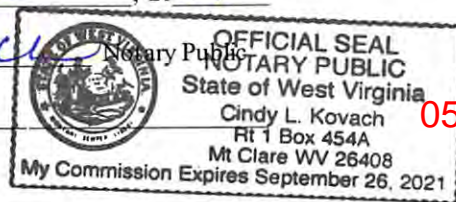
Company Official (Typed Name) Christopher Turner

Company Official Title Designated Agent

Subscribed and sworn before me this 30th day of March, 20 17

Cindy L. Kovach Notary Public

My commission expires 9/26/2021



05/19/2017

Operator's Well No. 15377A

Proposed Revegetation Treatment: Acres Disturbed less than 1 acre Prevegetation pH _____

Lime 2-3 Tons/acre or to correct to pH _____

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch hay or straw 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Tall Fescue	40
Landino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Landino Clover	5

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

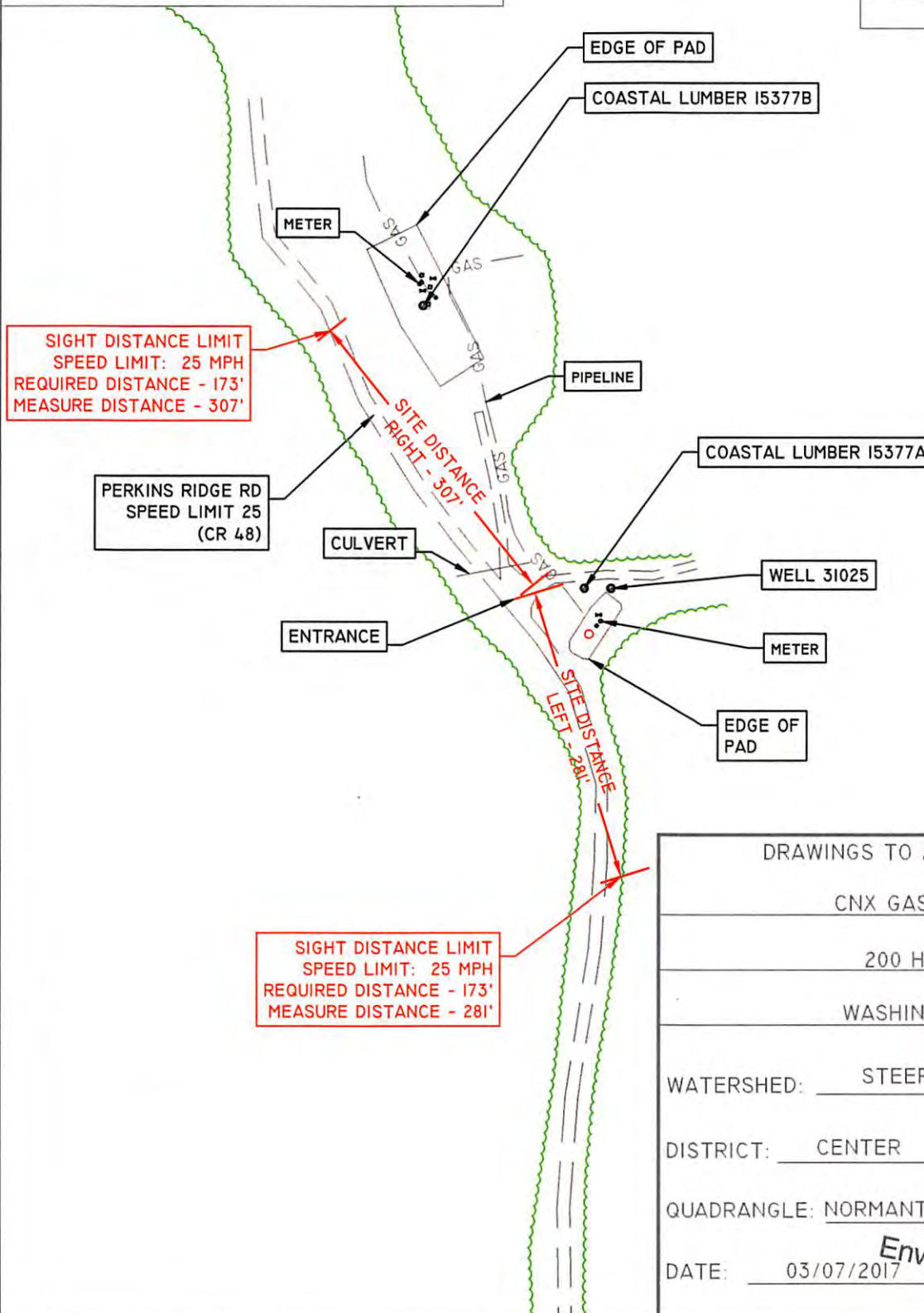
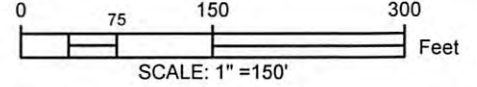
Title: 006 Inspector Doug Phillips Date: 4-13-17

Field Reviewed? () Yes () No

THIS PLAN IS FOR THE PLUGGING OF AN EXISTING WELL. ENTIRE LENGTH OF ACCESS IS EXISTING WELL ROAD. ROCK WILL BE USED WHERE NECESSARY.

LEGEND

- - - - - EXISTING ROAD
- ~ ~ ~ ~ ~ EXISTING TREE LINE
- GAS — EXISTING GAS LINE

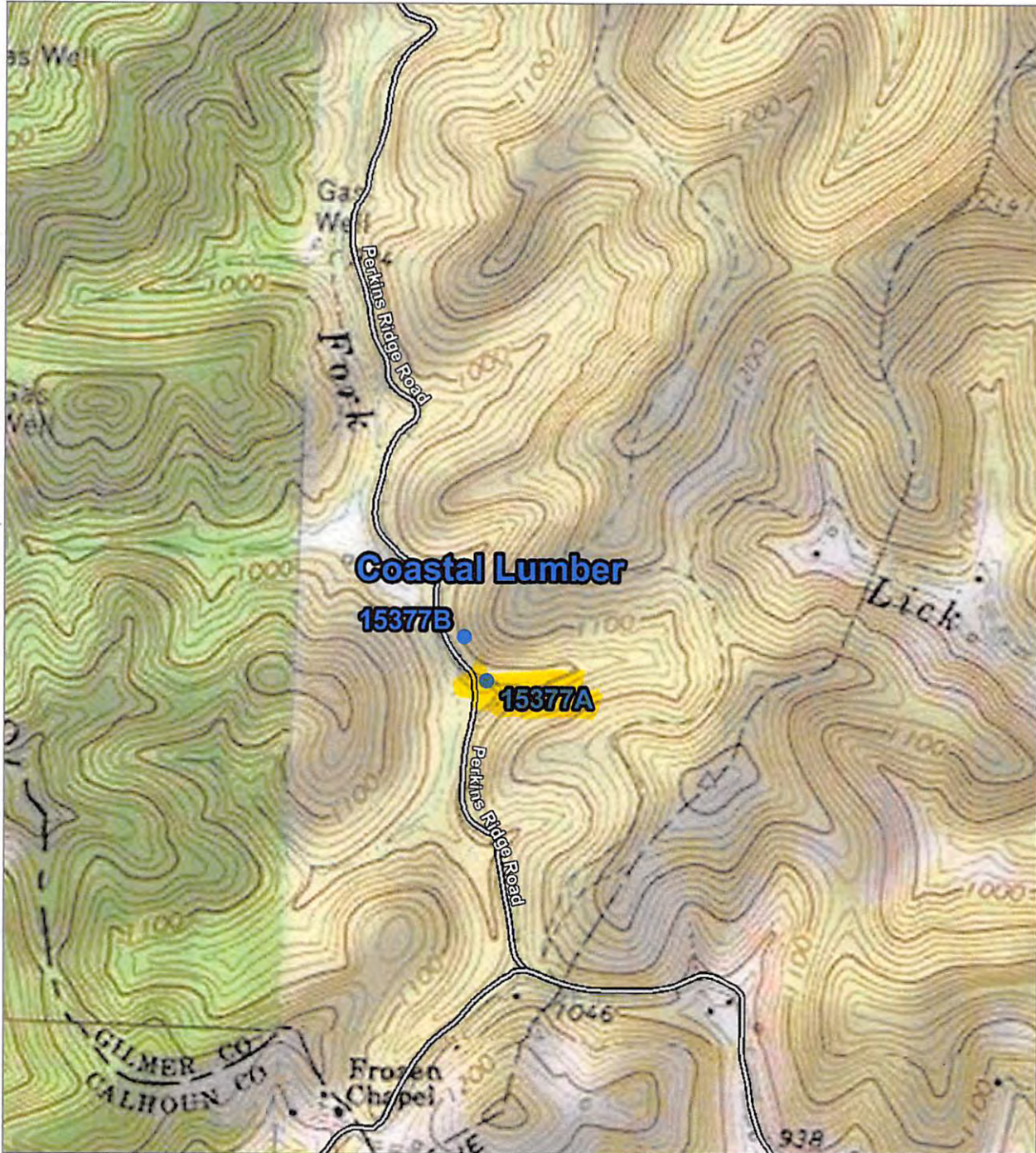


SIGHT DISTANCE LIMIT
SPEED LIMIT: 25 MPH
REQUIRED DISTANCE - 173'
MEASURE DISTANCE - 307'

PERKINS RIDGE RD
SPEED LIMIT 25
(CR 48)

SIGHT DISTANCE LIMIT
SPEED LIMIT: 25 MPH
REQUIRED DISTANCE - 173'
MEASURE DISTANCE - 281'

DRAWINGS TO ACCOMPANY FORM WW-9	
CNX GAS COMPANY LLC	
200 HALLAM ROAD	
WASHINGTON, PA 15301	
WATERSHED: STEER CREEK	RECEIVED Office of Oil and Gas
DISTRICT: CENTER	COUNTY: WASHINGTON
QUADRANGLE: NORMANTOWN	WELL NO: 15377A 15377B
DATE: 03/07/2017	APR 24 2017 WV Department of Environmental Protection



LOCATION MAP
 NORMANTOWN, WV 7.5M USGS QUADRANGLE
 SCALE: 1"=1000'



Blue Mountain Inc.

*Engineers and Land Surveyors
 Woman Owned Small Business*

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

LOCATION MAP
GAS WELL PLUGGING
 COASTAL LUMBER I5377A&B GAS WELL
 CENTER DISTRICT
 GILMER COUNTY, WV
 CNX GAS COMPANY, LLC.
 200 HALLAM ROAD
 WASHINGTON, PA 15301

DRAWN BY: LLLF	
CHECKED BY: WPT	
DATE: 02/27/2017	
SCALE: 1"=1000'	
WATERSHED: STEER CREEK	
PAGE 1 OF 1	APR 24 2017 WV Department of Environmental Protection 05/19/2017

