



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

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

Thursday, August 04, 2016
WELL WORK PERMIT
Vertical / Plugging - 2

COLUMBIA GAS TRANSMISSION, LLC
P. O. BOX 1273

CHARLESTON, WV 253251273

Re: Permit approval for 7300
47-035-00506-00-00

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: 7300
Farm Name: WASKEY, J. H., ETAL
U.S. WELL NUMBER: 47-035-00506-00-00
Vertical / Plugging - 2
Date Issued: 8/4/2016

Promoting a healthy environment.

08/05/2016

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.

3500506 P

WW-4B
Rev. 2/01

1) Date 6/15, 20 16
2) Operator's
Well No. Ripley 7300
3) API Well No. 47-035 - 00506

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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

5) Location: Elevation 884.8 ft (269.7 m) Watershed Sandy Creek
District Ravenswood -2 County Jackson Quadrangle Sandyville, WV -598

6) Well Operator Columbia Gas Transmission, LLC 7) Designated Agent Paul Amick
Address 1700 MacCorkle Ave SE Address 1700 MacCorkle Ave SE
Charleston, WV 25325-1273 Charleston, WV 25325-1273

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Jamie Stevens Name Contractor Services Inc
Address 105 Kentuck Road Address 929 Charleston Rd
Kenna, WV 25248 Spencer, WV 25276

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

* refer to "prior to P&A" and "proposed P&A" wellbore schematics

Kill well. Obtain cement bond log. Clean out well to base of Oriskany sandstone. Install bottom cement plug 4000 ft to TD. Set mechanical bridge plug @ +/- 4000 ft. Based on results of CBL, perforate and squeeze cement any oil, gas, and/or water zones not covered with cement as directed by State Inspector. Recover all uncemented casing that is free, except for the 8-5/8" casing (casing needs left in well in the event future well intervention required). Cement from bridge plug to surface. Grout all uncemented annuli to surface. Install monument with API number.

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

Work order approved by inspector



Date

JUL 08 2016
6-30-16

WV Department of
Environmental Protection

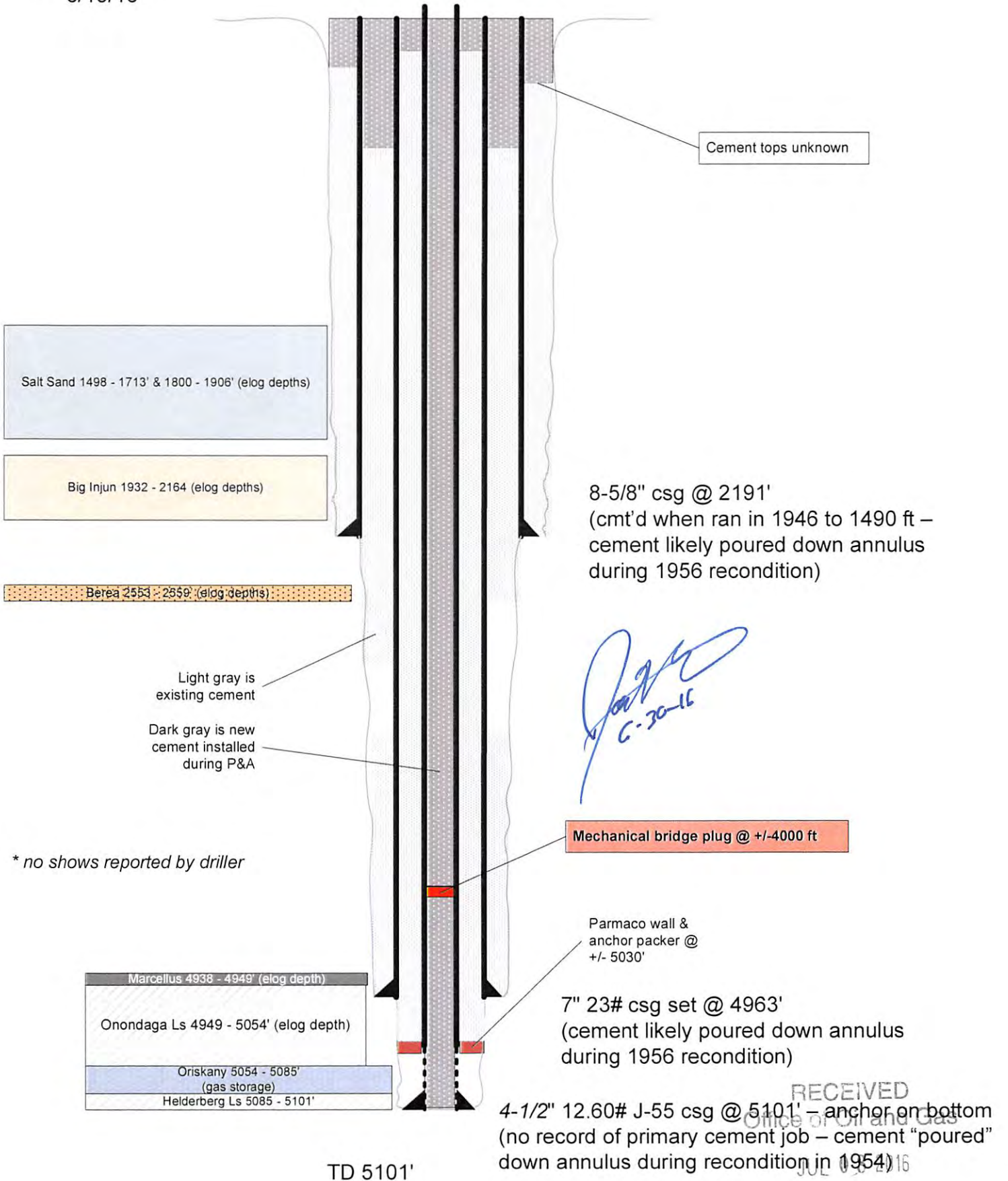
08/05/2016

RECEIVED
Office of Oil and Gas

RIPLEY 7300

Proposed P&A

6/15/16



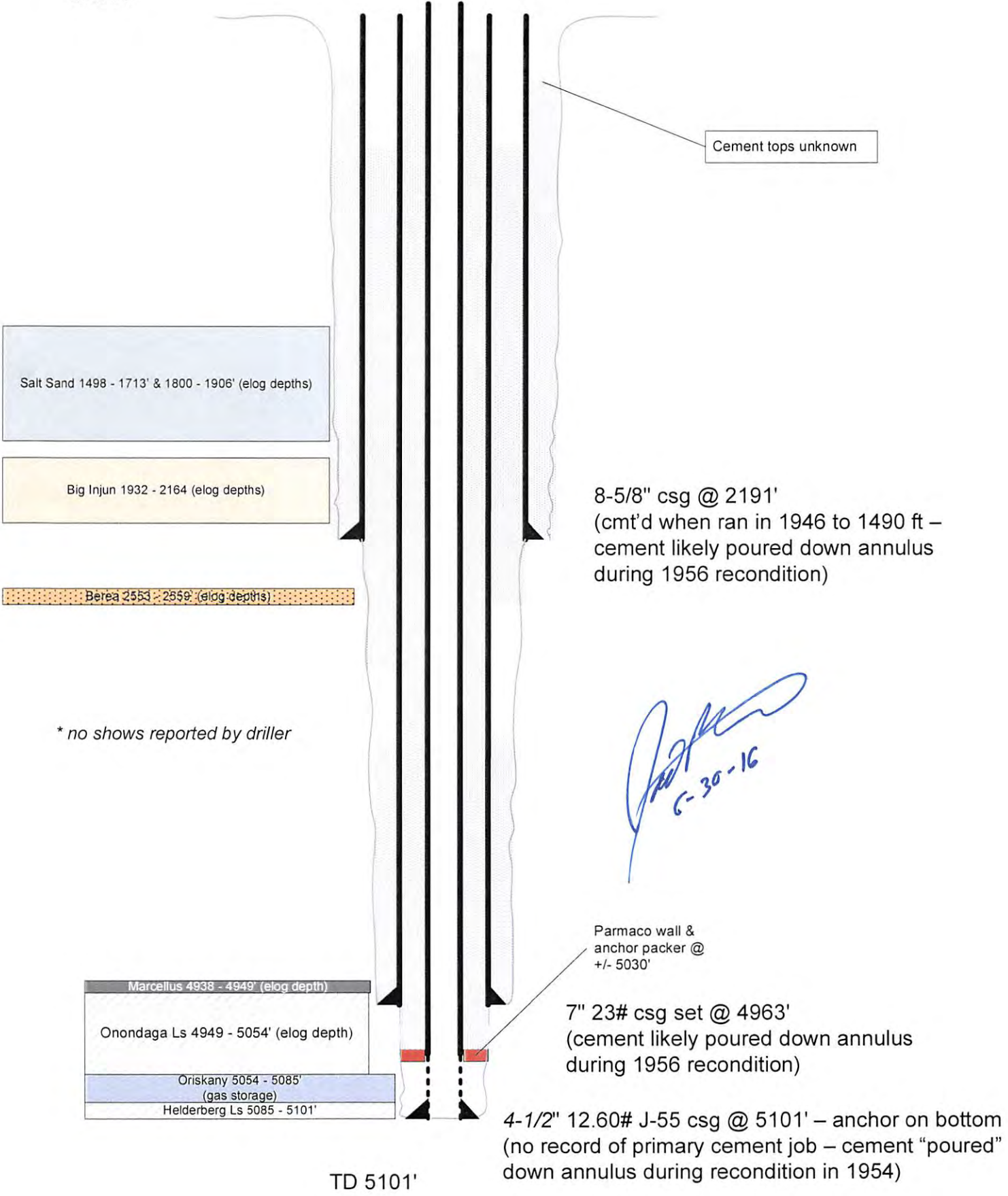
RECEIVED
Office of Oil and Gas
JUL 13 2016

RIPLEY 7300

** not to scale **

Prior to P&A

6/9/16



Cement tops unknown

Salt Sand 1498 - 1713' & 1800 - 1906' (elog depths)

Big Injun 1932 - 2164 (elog depths)

Berea 2553 - 2859 (elog depths)

8-5/8" csg @ 2191'
(cmt'd when ran in 1946 to 1490 ft –
cement likely poured down annulus
during 1956 recondition)

* no shows reported by driller

[Handwritten signature]
6-30-16

Parmaco wall &
anchor packer @
+/- 5030'

Marcellus 4938 - 4949' (elog depth)

Onondaga Ls 4949 - 5054' (elog depth)

Oriskany 5054 - 5085'
(gas storage)

Helderberg Ls 5085 - 5101'

7" 23# csg set @ 4963'
(cement likely poured down annulus
during 1956 recondition)

4-1/2" 12.60# J-55 csg @ 5101' – anchor on bottom
(no record of primary cement job – cement "poured"
down annulus during recondition in 1954)

TD 5101'

Field Name RIPLEY	Well Number 07300	Redlined By Amos	Redlined Date 3/30/2012	Comments Could not run Hires tool in 2011. Probably internal weld.								
Operating Area ST. ALBANS		Maximo Number SW-031207300	API Number 47035005060000	Lease Name: John H. Waskey, Et Ux			Spud Date 5/10/1946	Acerage 72	TVD (ft) 5,101	MD (ft)	Datum Reference	
Township/Tax District RAVENSWOOD	Tax Number 351502	County Jackson	State WV	Latitude (DD) 38.896363	Longitude (DD) -81.681324	Section # 58-97	Lot #	State Permit	Line # X59W7300	Line Length 2800	Lease # 1052652	Inventory Map #304N/440E
Well Classification OBSERVATION	Storage Well Yes	Key Well No	Group	SubGroup	Completion Type	Est. Deepest FW (ft)	Ground Elevaiton (ft)	KB Elevation (ft)				

Distances/Accessibility:

# Structures within 660 ft:	0
to Closest Structure (ft):	2,500
to Public Road (ft):	2,400
to Stream (ft):	1,800
to Pond (ft):	2,100
to Wetlands (ft):	
to Water Well (ft):	2500
Location Size (LxW) ft.	160 x 40
Bridges (i.e.wt.limit)(tons):	
UtilityLines (est. height-ft):	
StreamCrossing (width-ft):	

Topography

<input type="checkbox"/> Agricultural	<input type="checkbox"/> Mountainous
<input checked="" type="checkbox"/> Flat	<input type="checkbox"/> Residential
<input checked="" type="checkbox"/> Hilly	<input type="checkbox"/> Rolling
<input type="checkbox"/> Marshy	<input type="checkbox"/> Steep

Stock Tank?

Size(bbls)

Condition

Cathodically Protected?

Diked?

Length, Width, Height (ft)

x x

Wellhead Measurement?

Meter Run

Direction To Well

Ripley 7300- Parkersburg WV- I-77 S to Ravenswood exit (exit 146) turn left (E) onto CR 56. Follow CR 56 to Sandyville, turn right (S) on CR 21 (old US 21) S- go to mailbox 8000 (across from trailer park), turn right uphill bearing right past barn. Continue uphill through two farm gates to well in pasture at top of hill.

Landowner Restrictions

Comments

Could not run Hires tool in 2011. Probably internal weld.

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 JUL 08 2016
 Department of Environmental Protection

3500506P

Wellhead								
Type	Install Date	Make	Flow String (in)	Support String (in)	Working Press (psi)	Connection	Tubing Hanger	Comments
Field Fabricated	10/25/1954		4.50	7	2000		<input type="checkbox"/>	

Valves						
Description	Installed	Type	Make	Size (in)	Working Press. (psi)	Comments
Side Valve	10/25/1954	Plug	Nordstrom	4.00	2,000	
Top Valve	10/25/1954	Gate	Orbit	4.00	2,000	

Downhole Components (Items in BOLD are still in hole - Items in ITALICS have been pulled)										
Run	Pulled	OD (in)	Description	Top (ft)	Bottom (ft)	Wt (#/ft)	Grade	Thread	Cmt'd	Comments
5/10/1946		8.625	Surface Pipe	0	2,191	24.00				1946 WV Well Record indicates/states "8-5/8" cemented to 1490 ft". Old 1954 recondition work order states that scope is to "cement between all strings of pipe to surface", but no records to verify actual work performed.
5/20/1946		7.000	Casing	0	4,963	22.00				
7/10/1954		6.400	Packer	5,065	5,070					Wall & anchor packer - depth questionable.
7/10/1954		4.500	Casing	0	5,065	12.60	J-55		Y	Old 1954 recondition work order states that scope is to "cement between all strings of pipe to surface", but no records to verify actual work performed. Most likely cmt'd to surface.
7/10/1954		4.500	Slotted Ancho	5,070	5,101					No record of anchor/tailpipe, but, with W&A packer, I assume there is a slotted/perforated anchor/tailpipe to activate pkr elements.
5/30/1946	7/9/1954	2.375	Tubing	0	5,078	4.60				Pulled.

Formations				
Formation	Top (ft)	Bottom (ft)	Fluid Shows	Comments / Log Reference
Drillers Log of Formations				
Sand	485	535		
Berea	2,545	2,555		
Brown Shale	3,735	4,953		
Onondaga Limestone	4,954	5,066		
Oriskany Sandstone	5,066	5,082	G	Comments: 4.915 Mmcf/d
TD	5,101	5,101		
Elog Formation Tops				
Logger's TD				
Oriskany Sandstone				
Berea				
Brown Shale				
Sand				
Onondaga Limestone				

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Stimulations										
5/21/1946 - Shot 40 Qts. Glycerin										
Date	Stim Type	Stim Company		Stim Trade Name			Zone	Top (ft)	Bottom (ft)	
5/21/1946	Shot 40 Qts. Glycerin						Oriskany sand or Ridgeley sand or Nia	5,066	5,082	
Est. Pore Press (psi)	Breakdown Press (psi)	Avg. Treat Press (psi)	ISIP (psi)	Avg. BH Rate (bpm)	Flush Fluid	Fluid Flush Density (ppg)	Nitrogen Amt (mcf)			
Proppant Type Mesh		Proppant Amount (lb)	Max BH sand concentration (lb/gal)	Total Job Load Recovered (bbl)			% Job Load Recovered			
Fluid Type 1:	Fluid Amt 1 (bbl):	Fluid Type 2:	Fluid Amt 2 (bbl):	Fluid Type 3:	Fluid Amt 3 (bbl):	Fluid Type 4:	Fluid Amt 4 (bbl):			
Comments										
Shot 40 Qts. Glycerin - no other data. -										

Build-Up Tests										
Date	Type	c	n	kh	Skin	True Skin	DD Rate (Mcf/d)	AOF (Mcf/d)	Comments	Analysis
10/12/2007	Single-Point	0.0653	0.8000	205	-0.85		1,394	9,539		Decent test. Falls very closely to the multi in 1997. Very close to getting out of wellbore storage (autofit was the best fit). 11% pressure drop. (Well should be changed to an observation well because of operational problems)
11/19/1997	Multi-Point	0.0690	0.8000	216		-2.63	1,473	10,077		
05/13/1946	Open-Flow									

Notes			
Date	Category	Detail	Added by
5/10/1946	Note	Historical Well Notes	
07/20/1954		4 1/2 cemented with 500 sacks cement(between all strings and 4 1/2 to surface 8 5/8 cemented to 1490'	bubernak
		microfiche does not indicate a deeper depth than the original TD	
		5/21/1946 Well shot w/ 40 qts	
		open flow 4.915 Mmcf/d/ 960# rp in 24 hrs	
		Wellhead change in 1954 Reconditioned 1954	
04/12/2012		BAL ran 3.65" OD gauge ring. Attempted to run HRVRT but set down at 16 ft - abort HRVRT. Prep to run VRT. Ran 3.78" gauge ring - very tight at weld below wellhead tee - worked thru weld but had troubles getting back up thru weld. Aborted running pipe inspection logs. Combination of weld and probably crooked wellhead likely the issue.	
12/12/2013	Program Change	moved from 2015	bubernak
12/12/2013		Good for quick plug if money permits.	

35005069

11-5159-1954

FORM U 397-R-P-C-B-D

WELL WORK ORDER

DATE ISSUED 5-19 19 54 BUDGET NO. 764 WORK ORDER NO. 6987
 COMPANY United Fuel Gas Company FIELD Clendenin
 FARM J. H. Waskey LEASE NO. 3732 ACRES 144
 WELL NO. 7300 DISTRICT Ravenswood COUNTY Jackson STATE W. Va.
 ON WATERS Sandy Creek MAP SQUARE 58-97
 LOCATION MADE BY United Carbon Company DATE _____ 19 _____ NOTE BOOK _____ PAGE _____
 COAL _____ NO BUILDINGS WITHIN _____ FEET _____
 LEASE EXPIRES _____ 19 _____ CLASS OF LOCATION _____
 PURPOSE AND NECESSITY To Purchase well from United Carbon Company for storage in Pool X-59.
 R _____ D WORK ORDER NOS. _____ FOR _____

DATA AND APPROVALS

CHECK TYPE OF WORK	CHECK PERMITS OR SERVICES REQUIRED
Purchase <input checked="" type="checkbox"/>	RIGHT OF WAY FOR ROAD <input type="checkbox"/> DRILLING PERMIT <input type="checkbox"/>
DRILL WELL DEEPER <input type="checkbox"/>	WELL LINE <input type="checkbox"/> ABANDONMENT PERMIT <input type="checkbox"/>
ABANDON WELL <input type="checkbox"/>	INSTALL MEASURING EQUIPMENT <input type="checkbox"/>
	SURVEY FOR I. W. G. LINE <input type="checkbox"/>

ESTIMATED DEPTH 5101 FEET. SAND Oriskany DRILLING CONTRACTOR United Carbon Co.
 COMPANY WILL FURNISH: RIG: YES NO WATER YES NO FUEL YES NO

APPROVALS

SUPT. John G. Martin DATE 5-10 19 54 DATE _____ 19 _____
 DIVISION SUPT. J. A. Seese DATE 5-13 19 54 PROD. MGR. H. C. Mefford, Jr. DATE 5/19 19 54
 ENGINEER S. R. Ferrell DATE 5-14 19 54 GENERAL SUPT. _____ DATE _____ 19 _____
 ASST. GEN. MANAGER _____ DATE _____ 19 _____ VICE PRESIDENT _____ DATE _____ 19 _____

DETAIL OF ESTIMATED COST					DETAIL OF ACTUAL COST				VARIATION		
Purchased					SIZE	QUANTITY	PRICE	AMOUNT			
MATERIAL TO BE INSTALLED	WEIGHT	SIZE	QUANTITY	PRICE	AMOUNT	SIZE	QUANTITY	PRICE	AMOUNT		
CASING		24#	8"	2191'	1.95	4,272.00	8-5/8"	2191'	1.35	2,955.66	(1316.34)
"	"	22#	7"	4963'	1.67	8,288.00	7"	4963'	1.10	5,464.26	(2823.74)
TUBING	WEIGHT										
FITTINGS											
Casing Shoe		8"	1	29.27	29.00	8-5/8"	1		20.88	(8.12)	
Casing Shoe		7"	1	23.21	23.00	7"	1		18.06	(4.94)	
TOTAL MATERIAL					12,612.00				8,458.86	(4153.14)	
Original	INSTALLATION OR RETIREMENT COST				XXXXXX				XXXXXX	XXXXXX	
LABOR					2,500.00				1,159.52	(1340.48)	
USE OF AUTO AND HAULING					3,000.00				2,445.23	(554.77)	
RIGHT OF WAY											
DRILLING	<u>5101</u>	FEET	@ <u>4.75</u>	PER FOOT	24,230.00						
HAULING, ERECTING AND DISMANTLING RIG									5101' @ 3,456	17,629.06	(6850.94)
USE OF RIG											
FUEL					250.00						
TORPEDO					100.00					2,051.49	(1801.49)
SUPPLIES AND EXPENSE					150.00						
ENGINEERING DEPARTMENT SURVEY										635.96	635.96
STORES EXPENSE AND FREIGHT											
LABOR BENEFITS OVERHEADS											
ADMINISTRATIVE OVERHEADS										2-764-6987	
TOTAL INSTALLATION OR RETIREMENT COST - Original					30,230.00				23,921.26	(6308.74)	
TOTAL ESTIMATE					42,842.00				32,380.12	(10461.88)	

08/05/2016

3500506P

FORM CS 1140 P CSD

WORK ORDER

REQUEST NO. 4433 BUDGET NO. 764 WORK ORDER NO. 7648
 DATE July 9, 19 54 12-5135-54 DATE ISSUED 7-20- 19 54

COMPANY United Fuel Gas Company DEPT. Production DISTRICT Clendenin
 PROPOSED WORK Recondition Well X-59-7300 and Install Heavier Equipment.

KNOWN AS Well X-59-7300 - Additions NO. _____ ORIGINAL INSTALLATION _____
 PURPOSE AND NECESSITY To clean well out and install heavier equipment due to well being purchased for storage in Pool X-59.

LOCATION: Well X-59-7300
 IN Ravenswood Rural Jackson West Virginia
DISTRIBUTION PLANT MAGISTERIAL DISTRICT TAXING DISTRICT COUNTY STATE

RELATED PROJECT WORK ORDER NO. 7647 FOR Well X-59-7300 - Part Removal
 APPROVED BY John C. Martin APPROVED BY J. H. Kime

DETAIL OF EXPENDITURES								
MATERIAL TO BE INSTALLED - ESTIMATE PRICE	SIZE	ESTIMATE		ACTUAL		VARIATION		
		QUANTITY	AMOUNT	QUANTITY	AMOUNT			
Steel Tubing 12.6#	1.06	4-1/2"	5078'	5,383.00	5138'	5,623.51	240.51	
Wall & Anchor Packer		4"x7"	1	175.00	1	182.40	7.40	
Orbit Gate Valve-Comp.		4"	1	510.00	1	399.30	(110.70)	
Nord Fig. 2349 P.Valve-Comp.		4"	1	365.00	1	369.81	4.81	
Welded Tee		4"	1	13.00	-	-	(13.00)	
W/N Flanges Ser. 90	25.00	4"	8	200.00	8	267.50	67.50	
Centralizers Casing 4 1/2"x8"	28.00	4"x7"	6	168.00	6	145.84	(22.16)	
Anchor Clamps		4"	1	20.00	1	19.63	(.37)	
Turnbuckles 1 1/2" x 12"	14.00	1-1/2"x16"	2	28.00	2	22.26	(5.74)	
Fittings				35.00		32.03	(2.97)	
Insulation Flange		4"	-	-	1	11.62	11.62	
TOTAL MATERIAL				6,897.00		7,073.90	176.90	
INSTALLATION ESTIMATE COST								
Direct Labor				2,500.00		1,605.57	(894.43)	
Use of Auto and Hauling				1,500.00		1,073.96	(426.04)	
Tools, Supplies and Miscellaneous Expense				35.00		136.48	101.48	
Interest				105.00		190.26	85.26	
Hauling, Erecting and Dismantling Spudder				350.00		- *	(350.00)	
Fuel				35.00		-	(35.00)	
Cement and Services				2,000.00		1,299.51	(700.49)	
Stores Expense and Freight				745.00		746.12	1.12	
Labor Benefits and Non-Productive Time				468.00		290.35	(177.65)	
Administrative and General Labor Overheads				63.00		53.53	(9.47)	
TOTAL INSTALLATION ESTIMATE COST				7,801.00		5,395.78	(2,405.22)	
TOTAL ESTIMATE				14,698.00		12,469.68	(2,228.32)	

INDICATE NORTH _____ SKETCH (CORRECT TO ACTUAL) _____ INVENTORY MAP NO. None
 Map Square 58-97

Note: Move in bucyrus erie spudder and string of cleaning out tools. Clean well out and run string of 4-1/2" tubing on wall and anchor packer. Cement between all string of casing and 4-1/2" tubing to surface. Install well fittings and report results.

* Included in Direct Labor and Use of Automobile.

08/05/2016

2-764-7648

COMPLETION REPORT

MAKE NECESSARY REVISIONS ON SKETCH TO SHOW WORK ACTUALLY PERFORMED, INDICATING LOCATION AND DIMENSIONS OF SPECIAL CONSTRUCTION.

FOR LINE WORK ON ESTABLISHED STREET OR HIGHWAY, INDICATE ON SKETCH THE DISTANCE OF LINE FROM ADJOINING PROPERTY, ALSO PORTION UNDER PAVING.

WHEN LINE EXTENDS INTO TWO OR MORE TAX DISTRICTS, LIST BELOW PORTION INSTALLED OR RETIRED, IN EACH

_____ FT. OF _____ SIZE _____ KIND _____ TOWN _____ DIST. _____ COUNTY
 _____ TWP
 _____ FT. OF _____ SIZE _____ KIND _____ TOWN _____ DIST. _____ COUNTY
 _____ TWP
 _____ FT. OF _____ SIZE _____ KIND _____ TOWN _____ DIST. _____ COUNTY
 _____ TWP
 _____ FT. OF _____ SIZE _____ KIND _____ TOWN _____ DIST. _____ COUNTY
 _____ TWP

MATERIAL INSTALLED OR RETIRED			MATERIAL INSTALLED OR RETIRED		
QUANTITY	SIZE	DESCRIPTION	QUANTITY	SIZE	DESCRIPTION
5138'	4"	Tubing, Sm'l, Gr J 12.60if			
1	4"x7"	Comb, Wall & Anchor Packer			
6	4"x8-5/8"	Casing Centralizers			
1	4"	Orbit Gate Valve			
1	4"	Nord # 2349 Plug Valve			
8	4"	W.N. Flanges Ser 90			
5	4"	Steel Ring Gaskets			
1	4"	Insulation Flange R.J. Ser 90			
1	4"	Welding Tee			
1	1/2"	Valve Steel Needle M&F			
1	4"	Bull Plug			
2	1 1/2" X 12"	Turnbuckles			
48	1-1/8" X 6-3/4"	Stud Bolts			
2	1-1/4" X 24"	Haip Pin Bolts & Links			
1	4"	Anchor Clamp			
10	Lbs	Thread Lubricant			
4	Sks	Aquagel			
500	Sks	Cement			
2 1/2	Cu-Yds	Ready Mixed Concrete			

MATERIAL TRANSFER NUMBERS: 1954 7-77-174, 8-161-162, 9-227, 10-140, 11-37-82, Nov N-49-67-68-73-74, P.O. 30979-30988-30982-30990.

PIPE COATING			ORIGINAL INSTALLATION DATES OF PROPERTY RETIRED		
QUANTITY	KIND	FT. OF PIPE	QUANTITY	KIND	DATE

TYPE OF JOINTS _____ EXCAVATION: BY HAND _____ FT. MACHINE _____ FT. WIDTH OF TRENCH _____ FT. AVG. DEPTH _____ FT. TYPE OF PAVING _____ PAVING CUT: WIDTH _____ FT. LENGTH _____ FT. DESCRIBE NATURE OF SOIL: _____ REPORT UNUSUAL CONDITIONS ENCOUNTERED IN CONSTRUCTION: _____ _____ _____	INFORMATION TO BE FURNISHED FOR SMALL STRUCTURES: OUTSIDE DIM. LENGTH _____ WIDTH _____ HEIGHT TO EAVES _____ HEIGHT TO RIDGE _____ FOUNDATION: KIND _____ FOUNDATION: THICKNESS _____ HEIGHT ABOVE GROUND _____ DEPTH BELOW GROUND _____ FLOOR: KIND _____ THICKNESS _____ WALL: KIND _____ THICKNESS _____ ROOF: TYPE _____ KIND _____ DOORS: NO. _____ SIZE _____ KIND _____ WINDOWS: NO. _____ SIZE _____ KIND _____ PAINTING _____ MISCELLANEOUS _____
--	--

REASON FOR OVERRUN - UNDERRUN: Direct Labor, Use of Auto, and current and Services underrun our estimates, based upon similiar work performed in other storage Pools, due to the gains gained in reconditioning wells in these other storage pools.

DATE WORK STARTED June 23, 19 54 DATE WORK COMPLETED October 26, 19 54
 COMPILED BY Monroe Murphy DATE 10-29-19 54 APPROVED BY [Signature] DATE Nov 23, 19 54

08/05/2016

Environmental Protection
 WV Department of

Office of Oil and Gas

WW-4A
Revised 6-07

1) Date: 6/15/16
2) Operator's Well Number
Ripley 7300
3) API Well No.: 47 - 035 - 00506

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>Carl Olin Shockey</u> ✓	Name <u>not operated</u>
Address <u>5382 Parkersburg Rd</u>	Address _____
<u>Sandyville, WV 25275</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Jamie Stevens</u>	(c) Coal Lessee with Declaration
Address <u>105 Kentuck Road</u>	Name _____
<u>Kenna, WV 25248</u> <i>507</i>	Address _____
Telephone <u>304-206-7775</u>	_____

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

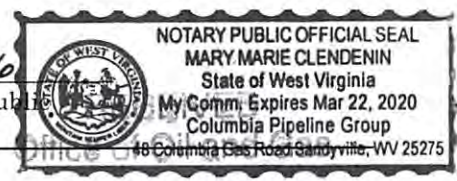
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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 Columbia Gas Transmission, LLC
 By: Jim Amos *Jim Amos*
 Its: Senior Well Services Engineer
 Address 48 Columbia Gas Rd
Sandyville, WV 25275
 Telephone 304-483-0073

Subscribed and sworn before me this 5th day of July, 2016
Mary Marie Clendenin Notary Public
 My Commission Expires 3/22/2020



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 depprivacyofficer@wv.gov.

JUL 08 2016
Office of Oil and Gas
Environmental Protection

08/05/2016



1700 MacCorkle Ave SE
P.O. Box 1273
Charleston, WV 25325

June 28, 2016

Carl Olin Shockey
5382 Parkersburg Rd
Sandyville, WV 25275

Mr. Shockey, Columbia Gas Transmission, LLC is applying for a permit to the WV Department of Environmental Protection – Office of Oil and Gas, to permanently plug and abandon an underground natural gas storage well located on property owned by you. As reference, the storage field and well ID is Ripley 7300 (API 47-035-00506).

As part of the well permitting process required by the Office of Oil and Gas, Columbia, the well operator, is required to provide a copy of all applicable permit forms for your review and record retention. Columbia encourages you to review each form in detail and follow the instructions as outlined.

If you have questions, feel free to call.

Regards,

A handwritten signature in black ink, appearing to read "Jim Amos", with a large, stylized initial "J" and "A".

Jim Amos
Senior Well Services Engineer
Columbia Gas Transmission, LLC
jamos@cpg.com
off: 304-373-2412
cell: 304-483-0073

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WW-4B

API No.	035-00506 ^P
Farm Name	J. H. Waskey
Well No.	Ripley 7300

Not Applicable - Coal Not Operated

INSTRUCTIONS TO COAL OPERATORS OWNERS AND LESSEE

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator ____ / owner ____ / lessee ____ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____

By: _____

Its _____

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3500506P

WW-9
(5/16)

API Number 47 - 035 - 00506
Operator's Well No. Ripley 7300

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

Operator Name Columbia Gas Transmission, LLC OP Code 307032

Watershed (HUC 10) Sandy Creek Quadrangle Sandyville, WV

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: fresh water, gel, cement returns

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 30

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number 34-009-23821, 34-009-23823, 34-009-23824, 34-105-23619)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

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

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

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

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. No drill cuttings anticipated - other solids to be left in pit

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

-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 [Signature]
Company Official (Typed Name) James E. Amos
Company Official Title Senior Well Services Engineer

Subscribed and sworn before me this 5th day of July, 2016

Mary Marie Clendenin
My commission expires 3/22/2020

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Notary Public
MAY 08 2016
NOTARY PUBLIC OFFICIAL SEAL
MARY MARIE CLENDENIN
WV State of West Virginia
My Comm. Expires Mar 22, 2020
48 Columbia Gas Road Sandyville, WV 25275

3500506A

Proposed Revegetation Treatment: Acres Disturbed 1.0 (site) + 1.4 (road) Prevegetation pH 6

Line 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-10-10

Fertilizer amount 600 lbs/acre

Mulch 2 Tons/acre

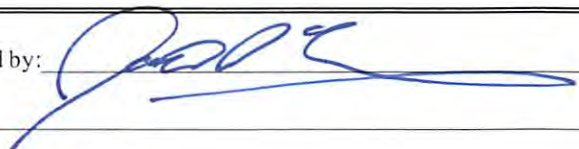
Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
<u>Annual Rye</u>	<u>40</u>	<u>Orchard Grass and/or Tall Fescue</u>	<u>29</u>
		<u>Birdsfoot Trefoil (empire)</u>	<u>9</u>
		<u>Annual Rye</u>	<u>12</u>

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: OCG Inspector

Date: 6-30-16

Field Reviewed? Yes No

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

Operator Name: Columbia Gas Transmission, LLC
Watershed (HUC 10): Sandy Creek Quad: Sandyville, WV
Farm Name: J. H. Waskey

- 1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubrications will be stored on site, but located within secondary containment.
Spills from construction equipment is the only source of contaminate to groundwater.

- 2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

All construction equipment will be inspected daily for leaks. Spill kits will be on site.

- 3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

Sandy Creek is 1090 ft from wellhead. The closest Well Head Protection Area is 5.1 miles (Ravenswood Municipal Water Works). Refer to enclosed assessment letter dated 6/17/16 from Department of Health and Human Resources, Source Water Assessment and Protection department.

- 4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

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- 5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

No waste material will be used for deicing or fill material on the property.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

During routine tailgate meetings groundwater protection will be a topic of discussion.

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubrications will be stored on site, but located within secondary containment. Construction equipment will be inspected daily for leaks or spill.

Signature: *John E. Ann*

Date: 6/20/16

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STATE OF WEST VIRGINIA
 DEPARTMENT OF HEALTH AND HUMAN RESOURCES
 BUREAU FOR PUBLIC HEALTH
 OFFICE OF ENVIRONMENTAL HEALTH SERVICES

Earl Ray Tomblin
 Governor

Karen L. Bowling
 Cabinet Secretary

June 17, 2016

William Timmermeyer, CESSWI
 Natural Resource Permitting Principal
 Columbia Pipeline Group
 1700 MacCorkle Ave., SE
 PO Box 1273
 Charleston, WV 25314

Re: SWAP Information Request for
 Wellhead Protection Area at 38.89636, -
 81.68132
 Jackson County, West Virginia

Dear Mr. Timmermeyer:

In response to the informational request dated June 13, 2016 concerning the closest protection areas of the location 38.89636, -81.68132 in Jackson County. Based on the current information, we have found the following closest distances to:

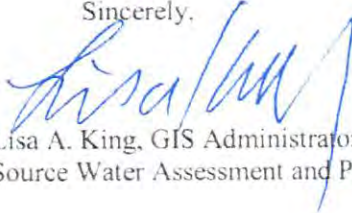
Wellhead Protection Area (Ravenswood Municipal Water Works)	: 5.1 miles
ZCC (Ripley City Of)	: 5.6 miles
ZPC (Ripley City Of)	: 3.8 miles

Your location is 101.93 river miles upstream from the public water intake at that Guyandotte Station Intake.

We do not have information regarding private drinking wells in the area. I suggest you contact the county health department for this information.

I hope the information provided helps you with the completion of your project. If you have any questions, please do not hesitate to contact me at (304) 356-4309.

Sincerely,


 Lisa A. King, GIS Administrator
 Source Water Assessment and Protection

CC: William J. Toomey

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**WV DEP Reclamation Plan 1 of 2 (Overview)
Ripley storage well 7300**

Ripley well 7300

existing lease road

10% grade

10% slope

< 5% slope

20% slope

< 5% slope

15% slope

Old U.S. 21

21

Image USDA Farm Service Agency
© 2013 Google

Notes

- BMPs to be utilized per DEP requirements
- existing drainage to be maintained
- stone to be applied to lease road and well location as needed

Google earth



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**WV DEP Reclamation Plan 2 of 2 (Site Detail)
Ripley storage well 7300**

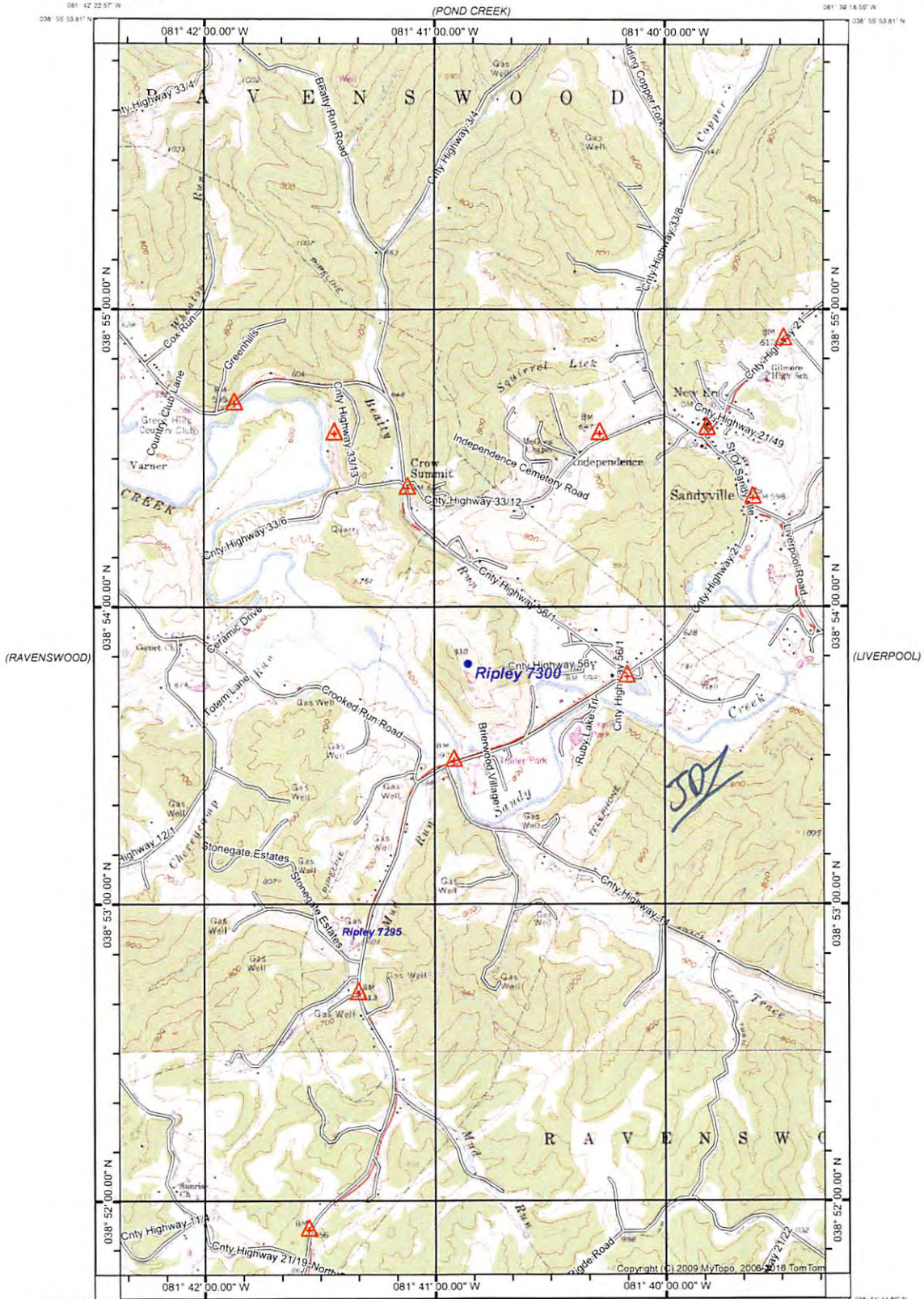


Notes

- BMPs to be utilized per DEP requirements
- existing drainage to be maintained
- stone to be applied to lease road and well location as needed

3500506P

3500506P



(COTTAGEVILLE) (GAY)

Declination

GN 0° 43' W
MN 7° 79' W

SCALE 1:24000

0 1 MILE

0 1000 2000 YARDS

0 1 2 KILOMETERS

SANDYVILLE, WV
1960

Produced by MyTopo Terrain Navigator
Topography based on USGS 1:24,000 Maps
North American 1983 Datum (NAD83)
Polyconic Projection
To place on the predicted North American 1927 move the
projection lines 0M N and 13M E

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM 1929

08/05/2016

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 035-00506 WELL NO.: 7300

FARM NAME: Waskey, J. H., etal

RESPONSIBLE PARTY NAME: Columbia Gas Transmission, LLC

COUNTY: Jackson DISTRICT: Ravenswood

QUADRANGLE: Sandyville, WV

SURFACE OWNER: Carl Olin & Lillian Elaine Shockey

ROYALTY OWNER: N/A - storage lease 1052652-000

UTM GPS NORTHING: 4305496.85 m

UTM GPS EASTING: 440916.50 m GPS ELEVATION: 269.7 m = 884.84 ft

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data 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 Office of Oil and Gas.


Signature

SR ENGINEER
Title

6/8/16
Date