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

Wednesday, August 03, 2016
WELL WORK PERMIT
Vertical / Plugging - 2

COLUMBIA GAS TRANSMISSION, LLC
P. O. BOX 1273

CHARLESTON, WV 253251273

Re: Permit approval for 7239
47-107-00305-00-00

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: 7239
Farm Name: CABOT CORPORATION
U.S. WELL NUMBER: 47-107-00305-00-00
Vertical / Plugging - 2
Date Issued:

1607003054

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.

10700305P

WW-4B
Rev. 2/01

1) Date 6/15, 2016
2) Operator's
Well No. Rockport 7239
3) API Well No. 47- 107 - 00305

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 823.06 ft (250.9 m) Watershed Tygart Creek
District Steele - 6 County Wood Quadrangle Rockport, WV - 583

6) Well Operator Columbia Gas Transmission, LLC
Address 1700 MacCorkle Ave SE
Charleston, WV 25325-1273

7) Designated Agent Paul Amick
Address 1700 MacCorkle Ave SE
Charleston, WV 25325-1273

8) Oil and Gas Inspector to be notified
Name Jamie Stevens
Address 105 Kentuck Road
Kenna, WV 25248

9) Plugging Contractor
Name Contractor Services Inc
Address 929 Charleston Rd
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 4600 ft to TD. Set mechanical bridge plug @ +/- 4600 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 10-3/4" 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.

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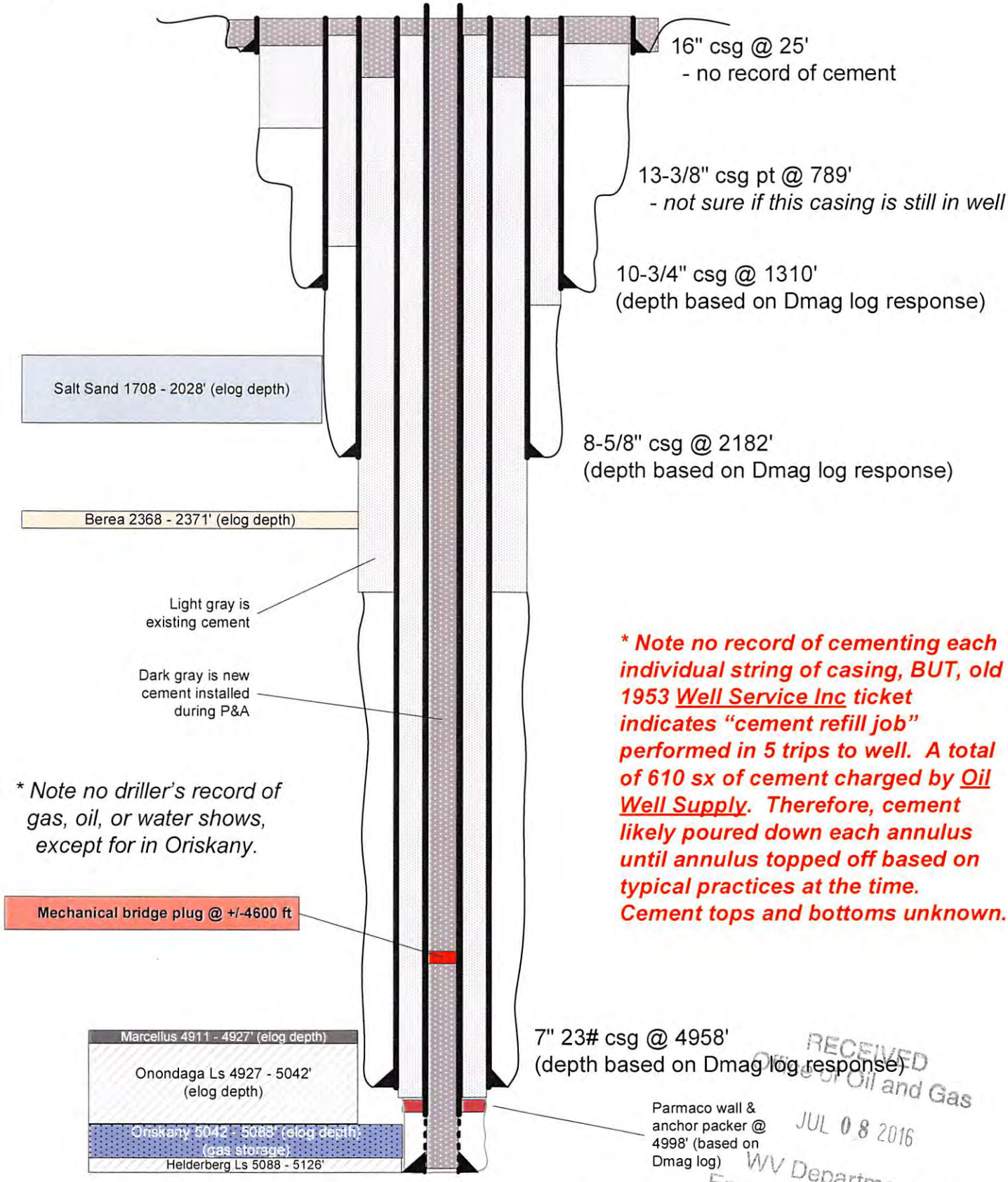
WV Department of
Environmental Protection

Work order approved by inspector _____ Date 6-30-16

10700305 P

ROCKPORT 7239
(6/9/2016)
Proposed P&A

** not to scale **



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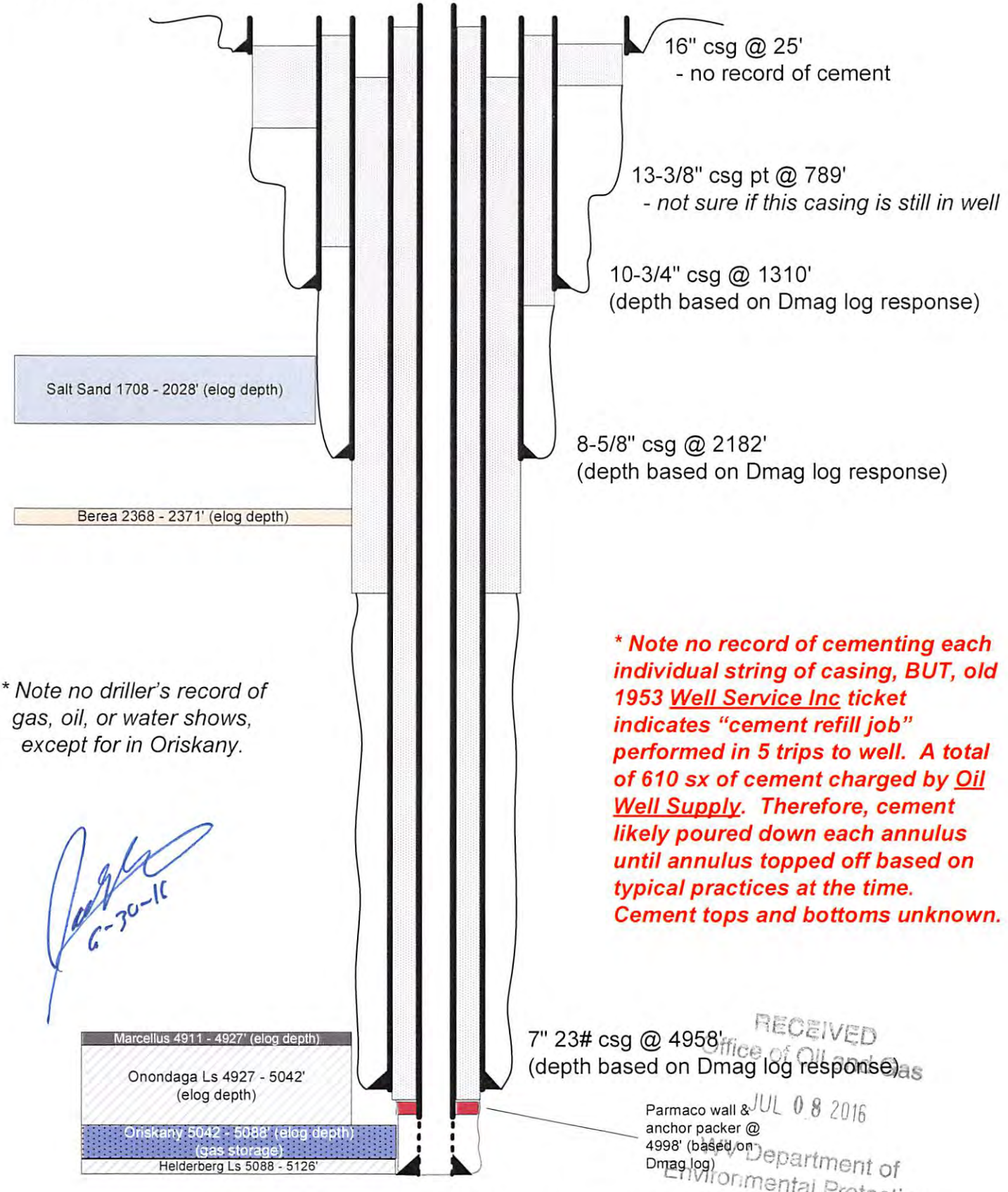
Office of Oil and Gas
JUL 08 2016
WV Department of
Environmental Protection

6-30-16

ROCKPORT 7239
(6/9/2016)
Prior to P&A

1070030SP

** not to scale **



* Note no driller's record of gas, oil, or water shows, except for in Oriskany.

**** Note no record of cementing each individual string of casing, BUT, old 1953 Well Service Inc ticket indicates "cement refill job" performed in 5 trips to well. A total of 610 sx of cement charged by Oil Well Supply. Therefore, cement likely poured down each annulus until annulus topped off based on typical practices at the time. Cement tops and bottoms unknown.***

6-30-16

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.F.G.CO. X-58-7239

8048 Godfrey L. Cabot

Field Clendenin

Acres 118.5

Map Sq. 64-107

Elev. 823.47'

West Va. County Wood

District Steele

se Purchase

. 1401 Line W.O. 1946

Permit No.

GE	S. L. NO.	INVEN. MAP		BY	DATE
16			Inventory of Well	MSW	5-21-52
17			Inventory of Line EW-8048	MSW	5-21-52

Well Purchased from Columbian Carbon Co.

Formerly F-23534

IP CSD

OUTSIDE WELLS

ev. 823.47'

COMPLETION REPORT

F 23534

Map Sq. 64-107

rm G. L. Cabot, Min. Well No. 1

ll Owners Columbian Carbon Company

Waters of Tygart Creek

te W. Va. County Wood Dist. Steele

pth 5126' Completed May 27, 19 50

Lime { Top / Bottom } Sand Oriskany { Top 5043 / Bottom 5089 }

First Day Barrels Gas 472,000 Cu. Ft.

ported by R. D. Date July 7, 19 50

(Over)

Permit-305

Completed: May 27, 1950

7" Casing	4958'
Corniferous	4930-5046
Oriskany	5043-5089
Total Depth	5126'

Gas: 5046'.
Shot 5-31-50 with 267# Gel. from 5043-5089'.
Re-shot 6-9-50 with 2550# Gel. tamp shot from 5024-5070'.
Final open flow: 442,000 cu. ft.
18 Hr. R.P. 1560#.

F-23534
P-305

Orig. F-23534
U-8048

COMPLETION REPORT

I-58

ELEV. 823.47' NO. 7229

MAP SQ. 64-107

FARM A. E. Dye

WELL OWNERS United Fuel Gas Company (Columbian Carbon Co.)

DISTRICT Steele COUNTY Wood STATE W. Va.

PERMIT NO. 305 TOTAL DEPTH. 5126 COMPLETED 5-27-50

OPEN FLOW 442 M. C. F. Oriskany R. P. 18 Hr. 1560#

	INJUN		SHALE
		Cornif.	4930-5046
MAXON	BEREA	Oriskany	5043-5089
BIG LIME		Lime	5089-5126

REMARKS: Gas 5046, 239 M. Test before shot 4/10 W 2" 84 M. Shot 5-31-50 with 267# Gel. from 5043-5089'. Test 1 hr. after shot 18/10 Merc. 2" 660 M. Test before 2nd shot 68/10 W 2" 348 M.

Re-shot 6-9-50 with 2550# Gel. tamp shot from 5024-5070.
Test 1 hour after shot 20/10 Merc. 3" 1,565 M

Final open flow 110/10 W 2" 442 M.

Rockport - 07239 — AFM (psig): 6,784 — CAP Ranking: 261

Field Name	Well Number	Redlined By	Redlined Date	Comments
ROCKPORT	07239	Amos	4/10/2012	

Operating Area	Maximo Number	API Number	Lease Name:	Spud Date	Acerage	TVD (ft)	MD (ft)	Datum Reference
ST. ALBANS	SW-031307239	47107003050000	W. F. Brown, Et Ux	8/15/1953	69	5,126		

Township/Tax District	Tax Number	County	State	Latitude (DD)	Longitude (DD)	Section #	Lot #	State Permit	Line #	Line Length	Lease #	Inventory Map
STEELE	1078506	Wood	WV	39.060431	-81.562091	64-107					1052281	#320N/448E

Well Classification	Storage Well	Key Well	Group	SubGroup	Completion Type	Est. Deepest FW (ft)	Ground Elevaiton (ft)	KB Elevation (ft)
OBSERVATION	Yes	No						

Distances/Accessibility:

# Structures within 660 ft:	1
to Closest Structure (ft):	500
to Public Road (ft):	550
to Stream (ft):	50
to Pond (ft):	
to Wetlands (ft):	
to Water Welll (ft):	500
Location Size (LxW) ft.	50 x 75
Bridges (i.e.wt.limit)(tons):	0
UtilityLines (est. height-ft):	
StreamCrossing (width-ft):	

Topography

- ☐ Agricultural
- ☐ Mountainous
- ☑ Flat
- ☐ Residential
- ☐ Hilly
- ☐ Rolling
- ☐ Marshy
- ☐ Steep

☐ **Stock Tank?**

Size(bbls)

Condition

☐ **Cathodically Protected?**

☐ **Diked?**

Length, Width, Height (ft)

☐ x ☐ x ☐

☑ **Wellhead Measurement?**

Meter Run

Direction To Well

Landowner Restrictions

Comments

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Environmental Protection

Rockport - 07239 — AFM (psig): 6,784 — CAP Ranking: 261

Wellhead

Type	Install Date	Make	Flow String (in)	Support String (in)	Working Press (psi)	Connection	Tubing Hanger	Comments
Field Fabricated	12/23/1953		3.50				☐	

Valves

Description	Installed	Type	Make	Size (in)	Working Press. (psi)	Comments
Top Valve	12/23/1953	Orbit	Orbit	4.00	3,000	
Side Valve	12/23/1953	Plug	Nordstrom	4.00	3,000	

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
3/8/1950		**16.000**	**Casing**	**0**	**25**	**42.00**				
3/9/1950	*8/30/1953*	*13.375*	*Casing*	*0*	*789*	*48.00*				**Not sure if this casing is still in well or not - Dmag log not much help.**
3/14/1950		**10.750**	**Casing**	**0**	**1,310**					**Records indicate that casing was pulled, BUT Dmag log phase shift indicates casing still exists - depth based on Dmag correlated to 9/12/01 Neutron log. No record of cement.**
3/14/1950		**10.750**	**Casing**	**1,336**	**1,364**					**Dmag log indicates jt of casing behind 8-5/8" csg - presumed to be 10-3/4"**
4/3/1950		**8.625**	**Casing**	**0**	**2,182**					**Records indicate that casing was pulled, BUT Dmag log phase shift indicates casing still exists - depth based on Dmag correlated to 9/12/01 Neutron log. No record of cement.**
5/16/1950		**8.000**	**Packer**	**4,848**	**4,858**		**dget B.H. Pac**			
5/16/1950		**7.000**	**Surface Pipe**	**0**	**4,958**	**23.00**				**Depth based on Dmag log phase shift - correlated to 9/12/01 Neutron log. No record of cement.**
12/23/1953		**6.400**	**Packer**	**4,996**	**5,000**					**Depth of packer is educated guess based on Dmag phase shift and CCL response.**
12/23/1953		**3.500**	**Casing**	**0**	**4,996**	**9.20**			**Y**	**Filled with cement - no record of volume.**
12/23/1953		**3.500**	**Anchor**	**5,000**	**5,126**					
5/17/1950	*12/18/1953*	*2.375*	*Tubing*	*0*	*4,998*	*4.00*				**Pulled.**

Formations

Formation	Top (ft)	Bottom (ft)	Fluid Shows	Comments / Log Reference
Drillers Log of Formations				
Onondaga	4,930	5,046		
Oriskany	5,043	5,089	G	Comments: Gas at 5046' - 5048', 5056' - 5061', 5065' -5068', 5080' -5084'.
Helderberg	5,089	5,126		
TD	5,126	5,126		
Elog Formation Tops				
Onondaga	4,932	5,047		Correlated to BAL GR-Neutron log ran 9/12/01.
Oriskany	5,047	5,093		Correlated to BAL GR-Neutron log ran 9/12/01. Top and bottom of Oriskany based on driller's call o
Helderberg	5,093	5,126		

Stimulations

6/9/1950 - Re shot -- 2550# Gel

Date	Stim Type	Stim Company	Stim Trade Name	Zone	Top (ft)	Bottom (ft)
6/9/1950	Re shot -- 2550# Gel				5,024	5,070

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 Tyee 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
-

5/31/1950 - Shot -- 267# Gel

Date	Stim Type	Stim Company	Stim Trade Name	Zone	Top (ft)	Bottom (ft)
5/31/1950	Shot -- 267# Gel				5,043	5,089

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 Tyee 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
-

Build-Up Tests

Date	Type	c	n	kh	Skin	True Skin	DD Rate (Mcfd)	AOF (Mcfd)	Comments	Analysis
05/31/1950	Open-Flow	0.0060	0.7500				154	461		

Notes

Date	Category	Detail	Added by
8/15/1953	Note	Historical Well Notes	

12/23/1953	Assumed 7" Packer Set @ 4848 top. Assumed 3.5" Anchor set @ 4990' top & 5000' depth. Purchased from Colombia Carbon - Reconditioned for Storage 12/53 - Pull 2" tubing . Clean out Well Ran 3-1/2" on Wall Anchor packer. Cement to top of hole between 3-1/2" x 7", install heavier equipment. Work order shows these casings were run (25' of 16") (1248' of 10") (1977' of 8.0") (4985' of 7") Completion report does not verify. 12/23/53 Installed 3-1/2" Gate Valve. United Fuel Gas #8048. F23534.	bubernak
02/04/1998	observation well BRIDGES: HOME MADE BRIDGE - WEIGHT LIMIT UNKNOWN - SO FOR THE PURPOSES OF THIS PROGRAM, ASSUMING A WEIGHT LIMIT OF 1 TON. Bridge to be removed	bubernak
6/27/2013	**Program Change** **Dropped from 2014 Other (Rockport WE) - moved to 2015 Other.**	**Admin**

Logs

API Neutron	**09/12/2001**	**Log TD: 5058**	**BAKER ATLAS**
No apparent corrosion.			
Differential Temperature	**09/12/2001**	**Log TD: 5058**	**BAKER ATLAS**
No apparent corrosion.			
Differential Temperature	**08/24/1976**	**Log TD:**	**SCHLUMBERGER**
Gamma Ray	**09/12/2001**	**Log TD: 5058**	**BAKER ATLAS**
No apparent corrosion.			
Gamma Ray	**08/24/1976**	**Log TD:**	**SCHLUMBERGER**
Phase - Shift tool	**09/12/2001**	**Log TD: 5058**	**BAKER ATLAS**
No apparent corrosion.			

FORM U 397-R-P C S D

WELL WORK ORDER

9-5129-52

DATE ISSUED 5-23 19 52 BUDGET NO. 763 WORK ORDER NO. 1401

COMPANY United Fuel Gas Company FIELD Clendenin

FARM G. L. Cabot LEASE NO. ACRES 118.5

WELL NO. 8048 (F-23534) DISTRICT Steele COUNTY Wood STATE W. Va.

ON WATERS Tygart Creek MAP SQUARE 64-107

LOCATION MADE BY Columbian Carbon Co. DATE February 21, 19 50 NOTE BOOK PAGE

COAL Not Operated NO BUILDINGS WITHIN FEET

LEASE EXPIRES Operated 19 CLASS OF LOCATION

PURPOSE AND NECESSITY To Purchase Well from Columbian Carbon Co.

RELATED WORK ORDER NOS. FOR

DATA AND APPROVALS

CHECK TYPE OF WORK		CHECK PERMITS OR SERVICES REQUIRED			
DRILL NEW WELL	☐	RIGHT OF WAY FOR ROAD	☐	DRILLING PERMIT	☐
DRILL WELL DEEPER	☐	WELL LINE	☐	ABANDONMENT PERMIT	☐
Purchase ~~XXXXXXX~~ WELL	☒	INSTALL MEASURING EQUIPMENT	☐		☐
		SURVEY FOR W. G. LINE	☐		☐
			☐		☐

ESTIMATED DEPTH 5126 FEET, SAND Oriskany DRILLING CONTRACTOR Columbian Carbon Co.

COMPANY WILL FURNISH: RIG: YES ☐ NO ☐ WATER YES ☐ NO ☐ FUEL YES ☐ NO ☐

APPROVALS

SUPT.	John C. Martin DATE 5-14 19 52			DATE	19
DIVISION SUPT.	J. A. Seese DATE 5-15 19 52	PROD. MGR.	H. C. Mefford, Jr.	DATE	5-15 19 52
ENGINEER	S. R. Ferrell DATE May 19, 19 52	GENERAL SUPT.	Ira Good	DATE	5-23 19 52
ASST. GEN. MANAGER	DATE 19	VICE PRESIDENT	J. J. Martin	DATE	5-23 19 52

DETAIL OF ESTIMATED COST — MATERIAL TO BE ~~XXXXXXXX~~ Purchased	SIZE	QUANTITY	PRICE	AMOUNT	DETAIL OF ACTUAL COST — SIZE	QUANTITY	PRICE	AMOUNT	VARIATION
CASING Conductor WEIGHT 42#	16"	25'	2.60	65.00	16"	25"	2.56	64.02	(.98)
" " 40.5#	10"	1248'	2.71	3,382.00	10-3/4"	1248'	2.040	2,545.92	(836.08)
" " 24#	8"	1977'	1.60	3,163.00	8-5/8"	1977'	1.401	2,769.78	(393.22)
" " 23#	7"	4985'	1.31	6,530.00	7"	4985'	1.098	5,473.53	(1,056.47)
TUBING WEIGHT 7.7#	3"	61'	.40	24.00		-		-	(24.00)
Tubing " 4#	2"	5061'	.25	1,265.00	2"	5061'	.246	1,245.01	(19.99)
FITTINGS									
Steel Casing Shoe	10"	1		39.00	10-3/4"x12"	1		18.60	(20.40)
Steel Casing Shoe	8"	1		26.00	8-5/8"x12"	1		12.67	(13.33)
Midget B.H. Packer	7"x8-5/8"	1		60.00	7"x8-5/8"	1		65.54	5.54
TOTAL MATERIAL				14,554.00				12,195.07	(2,358.93)
Original INSTALLATION ~~XXXXXXXXX~~ COST				x x x x x				x x x x x	x x x x x
LABOR				1,000.00				2,756.51	1,756.51
USE OF AUTO AND HAULING				2,000.00				7,415.48	5,415.48
RIGHT OF WAY									
DRILLING 5126' FEET @ 3.60 PER FOOT				18,454.00					
HAULING, ERECTING AND DISMANTLING RIG					5126' @ 4.1992			21,524.99	2,870.99
USE OF RIG									
FUEL				200.00					
TORPEDO				300.00					
SUPPLIES AND EXPENSE				100.00				1,074.92	74.92
Cement, Aquagel & Services				600.00					
ENGINEERING DEPARTMENT SURVEY				-					
STORES EXPENSE AND FREIGHT									
LABOR BENEFITS OVERHEADS									
ADMINISTRATIVE OVERHEADS					2-763-1401				
TOTAL INSTALLATION ~~XXXXXXXXX~~ COST - Original				22,654.00				32,771.90	10,117.90
TOTAL ESTIMATE				37,208.00				44,966.97	7,758.97

FORM U 397 RRP C & D

COMPLETION REPORT

RIG: COMMENCED _____ 19 ____ ,COMPLETED _____ ,CONTRACTOR _____

DRILLING COMMENCED _____ 19 ____ ,COMPLETED _____ 19 ____ ,CONTRACTOR _____

DAYS DRILLING _____ DEPTH _____ FEET. PRODUCING SAND _____ ,INITIAL ROCK PRESSURE _____ LBS.

INITIAL OPEN FLOW _____ M. C. F. DATE SHUT IN _____ 19 ____

DAYS FISHING _____ RIG NUMBER _____

CASING AND TUBING RECORD	INCH		INCH		INCH		INCH		INCH	
	FEET	IN.	FEET	IN.	FEET	IN.	FEET	IN.	FEET	IN.
TOTAL CHARGES TO WELL										
TRANSFERRED FROM WELL BEFORE COMPLETION										
TRANSFERRED TO LOOSE MATERIAL AT TIME OF COMPLETION										
TOTAL TRANSFERRED FROM WELL										
BALANCE CHARGED TO WELL										
AMOUNT PUT IN WELL										
AMOUNT PULLED OUT										
AMOUNT LEFT IN WELL										

ITEMIZE BELOW ALL MATERIAL AND EQUIPMENT OTHER THAN CASING AND TUBING USED IN OR REMOVED FROM THIS WELL

Purchased		

MATERIAL TRANSFER NUMBERS None

COMPILED BY Monroe Murphy May 29, 19 52 APPROVED BY John C. Martz 5-30 19 52

SKETCH OF SHUTTING IN OUTFIT

REASON FOR VARIATION FROM ESTIMATE: Construction priced from predecessor records. Equipment priced from comparable company wells.

FORM CG 1140-P C&D

WORK ORDER

5-5135-54

REQUEST NO. 4136 BUDGET NO. 763 WORK ORDER NO. 5886

DATE December 7, 1953 DATE ISSUED 12-14- 1953

COMPANY United Fuel Gas Company DEPT. Storage DIVISION DISTRICT Clendenin

PROPOSED WORK Recondition Well X-58-7239, and install heavy equipment for Storage in Pool X-58.

KNOWN AS Well X-58-7239 - Additions (8048) NO. ORIGINAL INSTALLATION DATE

PURPOSE AND NECESSITY To recondition Well for Storage in Pool X-58.

LOCATION: Well X-58-7239

IN Steele (DISTRIBUTION PLANT / MAGISTERIAL DISTRICT) Rural (TAXING DISTRICT) Wood (COUNTY) West Virginia (STATE)

RELATED PROJECT WORK ORDER NO. 5885 FOR Well #8048 - Part Removal

APPROVED BY John C. Martin APPROVED BY H. C. Mefford, Jr.

DETAIL OF EXPENDITURES

MATERIAL TO BE INSTALLED-~~REMOVED~~	PRICE	SIZE	ESTIMATE QUANTITY	ESTIMATE AMOUNT	ACTUAL QUANTITY	ACTUAL AMOUNT	VARIATION
9.2# Steel Tubing	.72	3"	5061'	3,644.00	5,224'	4,137.44	493.44
Wall & Anchor Packer		3"x7"	1	178.00	1	175.11	(2.89)
Orbit Flg. Gate		3"	1	300.00	1	356.95	56.95
Nord Fig. 2349 P. Valve		3"	1	335.00	1	294.42	(40.58)
Steel Tee		3"	1	11.00	-	-	(11.00)
Steel W/N Flanges 900#	17.50	3"	8	140.00	8	139.60	(.40)
Centralizers		3"x7"	6	156.00	6	168.00	12.00
Centralizers	26.00	3"x8"	3	78.00	3	83.97	5.97
Bull Plug		3"	1	12.00	1	11.30	(.70)
Tubing Anchor Clamps		3"	1	30.00	1	16.30	(13.70)
Turnbuckles	15.00	1-1/2"x18"	2	30.00	2	24.51	(5.49)
Fittings				46.00		30.22	(15.78)
TOTAL MATERIAL	See Below			4,960.00		5,492.88	532.88
Interest INSTALLATION ~~REMOVAL~~ COST				-		176.44	176.44
Direct Labor				2,300.00		2,832.86	532.86
Use of Auto and Hauling				1,500.00		2,163.36	663.36
Tools, Supplies and Miscellaneous Expense				500.00		446.67	(53.33)
Hauling, Erecting and Dismantling Spudder				450.00		- *	(450.00)
Fuel				30.00		126.00	96.00
Cement, Aquagel & Services				800.00		1,611.20	811.20
Damages - W. F. Brown				-		200.00	200.00
Repairs to Packer				-		106.23	106.23
Stores Expense and Freight				501.00		529.67	28.67
Labor Benefits Overheads				423.00		513.77	90.77
Administrative Overheads				59.00		69.79	10.79
Junk Iron & Steel - Road drains				-	2,000#	26.00	26.00
TOTAL INSTALLATION ~~REMOVAL~~ COST				6,563.00		8,801.99	2,238.99
TOTAL ESTIMATE				11,523.00		14,294.87	2,771.87

INDICATE NORTH SKETCH (CORRECT TO ACTUAL) INVENTORY MAP NO. FP-64/107

Map Square 64-107

Note: Move in Bucyrus Erie Spudder and String of Cleaning Out Tools. Pull 5061' of 2" Tubing and Clean Well Out. Run a string of 3" Tubing on a Wall and Anchor Packer. Cement between 3" and 7" Casing to top of hole, and install heavy equipment and shut well in report results.

Comp. 6

Material Installed:

Anchor Clamp	7"	-	-	1	55.06	55.06

*Included in Direct Labor and Use of Auto.

2-763-5886

MAPPED BY MAP NO. QUANTITY MAPPED DATE 19

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 TWP. _____ DIST. _____ COUNTY

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

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

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

MATERIAL INSTALLED ~~OR RETIRED~~			MATERIAL INSTALLED OR RETIRED		
QUANTITY	SIZE	DESCRIPTION	QUANTITY	SIZE	DESCRIPTION
5224'	3-1/2"	Tubing Sm'l. Gr. J. 9.20#			
1	3"	Valve Gate Orbit			
1	3"	Valve Plug Nord Fig.2349			
1	3"X7"	Packer Parmaco Wall & Anchor			
3	3-1/2"X8-5/8"	Centralizers Casing			
6	3-1/2"X7"	Centralizers Casing.			
8	3"	Flanges W/N Drl. Ser. 90			
1	7"	Casing Anchor Clamps			
1	3"	Plug Bull XXS			
6	3"	Gaskets Ring Oval Steel			
1	3-1/2"	Clamps Anchor			
2	1-1/2"X18"	Turnbuckles			
2	1-1/4"X24"	Bolts Hair Pin			
48	7/8"X5-3/4"	Bolts Stud Regular			
2000#		Junk Iron - Road Drains			
500		Sacks Cement			
20#		Thread Lube			

MATERIAL TRANSFER NUMBERS: August, 1953. # N-32-136-254-October-210-314-December-38-January, 1954. # 58-59-April-N18.

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

TYPE OF JOINTS Screw Tubing

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: Storage Well

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: Cement and Services was underestimated.

DATE WORK STARTED August 5, 1953 DATE [illegible] December 22, 19[illegible]

COMPILED BY Donald D. Rucker DATE [illegible] 19[illegible] APPR[illegible] C. Mulvin DATE 4-5 1954

1607003057P

WW-4A
Revised 6-07

1) Date: 6/15/16
2) Operator's Well Number
Rockport 7239

3) API Well No.: 47 - 107 - 00305

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served: ✓
(a) Name: Leah R. & Robert F. Dent
Address: 9312 Southern Highway
Rockport, WV 26169

(b) Name:
Address:

(c) Name:
Address:

5) (a) Coal Operator
Name: not operated
Address:

(b) Coal Owner(s) with Declaration
Name:
Address:

Name:
Address:

6) Inspector: Jamie Stevens
Address: 105 Kentuck Road
Kenna, WV 25248
Telephone: 304-206-7775

(c) Coal Lessee with Declaration
Name:
Address:

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
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

NOTARY PUBLIC OFFICIAL SEAL
MARY MARIE CLENDENIN
State of West Virginia
My Comm. Expires Mar 22, 2020
Columbia Pipeline Group
48 Columbia Gas Road Sandyville, WV 25275

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 deprivacyoffier@wv.gov.

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10700305P

Columbia Pipeline Group

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

June 28, 2016

Leah R & Robert F Dent
9312 Southern Highway
Rockport, WV 26169

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 Rockport 7239 (API 47–107–00305).

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,

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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1070030SP

WW-9
(5/16)

API Number 47 - 107 - 00305
Operator's Well No. Rockport 7239

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) Tygart Creek Quadrangle Rockport, 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: _____

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 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 _____

ANY WELL EFFLUENT WILL BE CONTAINED IN TANKS BEFORE DISPOSING IN UIC WELLS. JNM

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. N/A

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

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WV Department of Environmental Protection

Subscribed and sworn before me this 5th day of July 20 16

Mary Marie Clendenin Notary Public

My commission expires 3/22/2020

NOTARY PUBLIC OFFICIAL SEAL
MARY MARIE CLENDENIN
State of West Virginia
My Comm. Expires Mar 22, 2020
Columbia Pipeline Group
48 Columbia Gas Road Sandyville, WV 25275

1670030SP

Form WW-9

Operator's Well No. Rockport 7239

Proposed Revegetation Treatment: Acres Disturbed 0.7 (site) + 0.9 (road) Prevegetation pH 6

Lime 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 Upland	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Rye	40	Orchard Grass and/or Tall Fescue	29
		Birdsfoot Trefoil (empire)	9
		Annual Rye	12

For wetland areas: Annual Rye (40 lbs/acre) until indigenous plants re-establish cover.

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: OOG - Inspector Date: 6-30-16

Field Reviewed? (X) Yes ( ) No

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WW-9- GPP
Rev. 5/16

Page _____ of _____
API Number 47 - 107 - 00305
Operator's Well No. Rockport 7239

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): Tygart Creek Quad: Rockport, WV

Farm Name: W.F. Brown (WV DEP Cabot Corp)

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. All equipment will have secondary containment around it when not in use. 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.

There is an unnamed stream 35 ft from wellhead. The closest Well Head Protection Area is 10.2 miles (Belleville Hydro Electric Recreation). Refer to enclosed assessment letter dated 6/13/16 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.

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Page _____ of _____
API Number 47 - 107 - 00305
Operator's Well No. Rockport 7239

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.

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Signature: [signature]

Date: 6/15/16

1070030SP

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 13, 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
39.06043, -81.56209
Wood County, West Virginia

Dear Mr. Timmermeyer:

In response to the informational request dated June 13, 2016 concerning the closest protection areas of the location 39.06043, -81.56209 in Wood County. Based on the current information, we have found the following closest distances to:

Wellhead Protection Area (Belleville Hydro Electric Recreation) : 10.2 miles
ZCC (Claywood Park PSD) : 7.5 miles
ZPC (Claywood Park PSD) : 1.2 miles
The public water surface intake Guyandotte Station is 153.8 river miles downstream from this location.

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

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WV Department of
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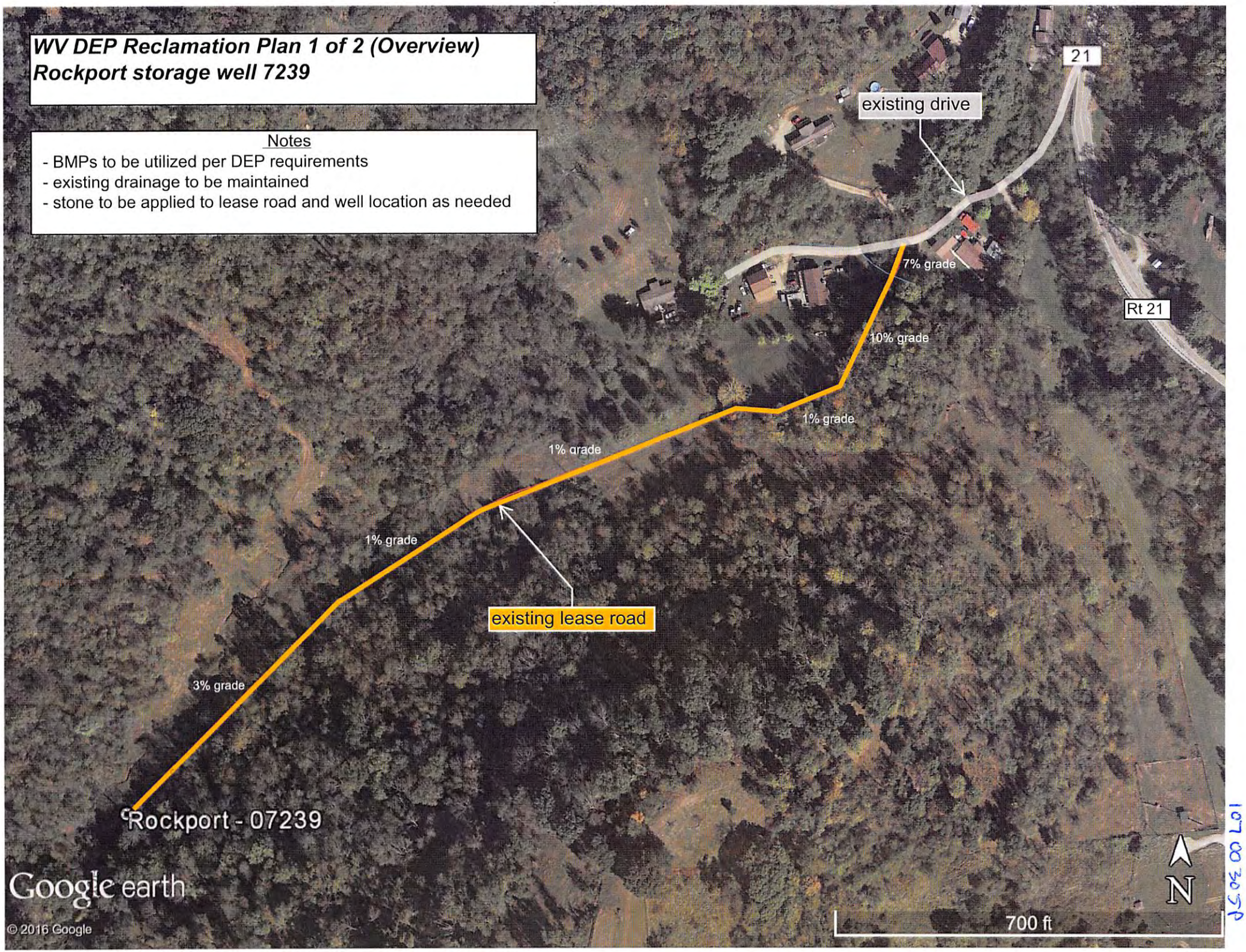
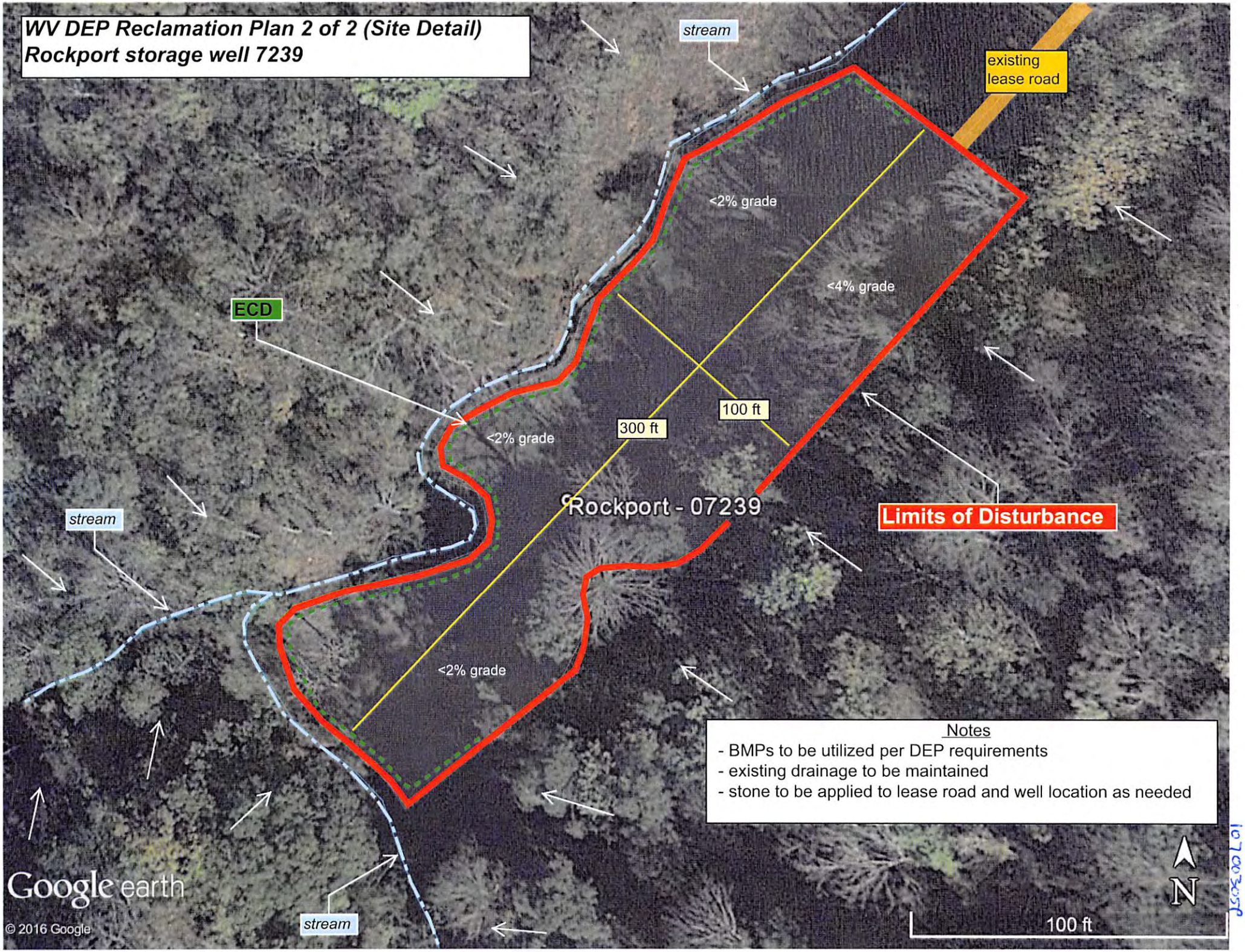
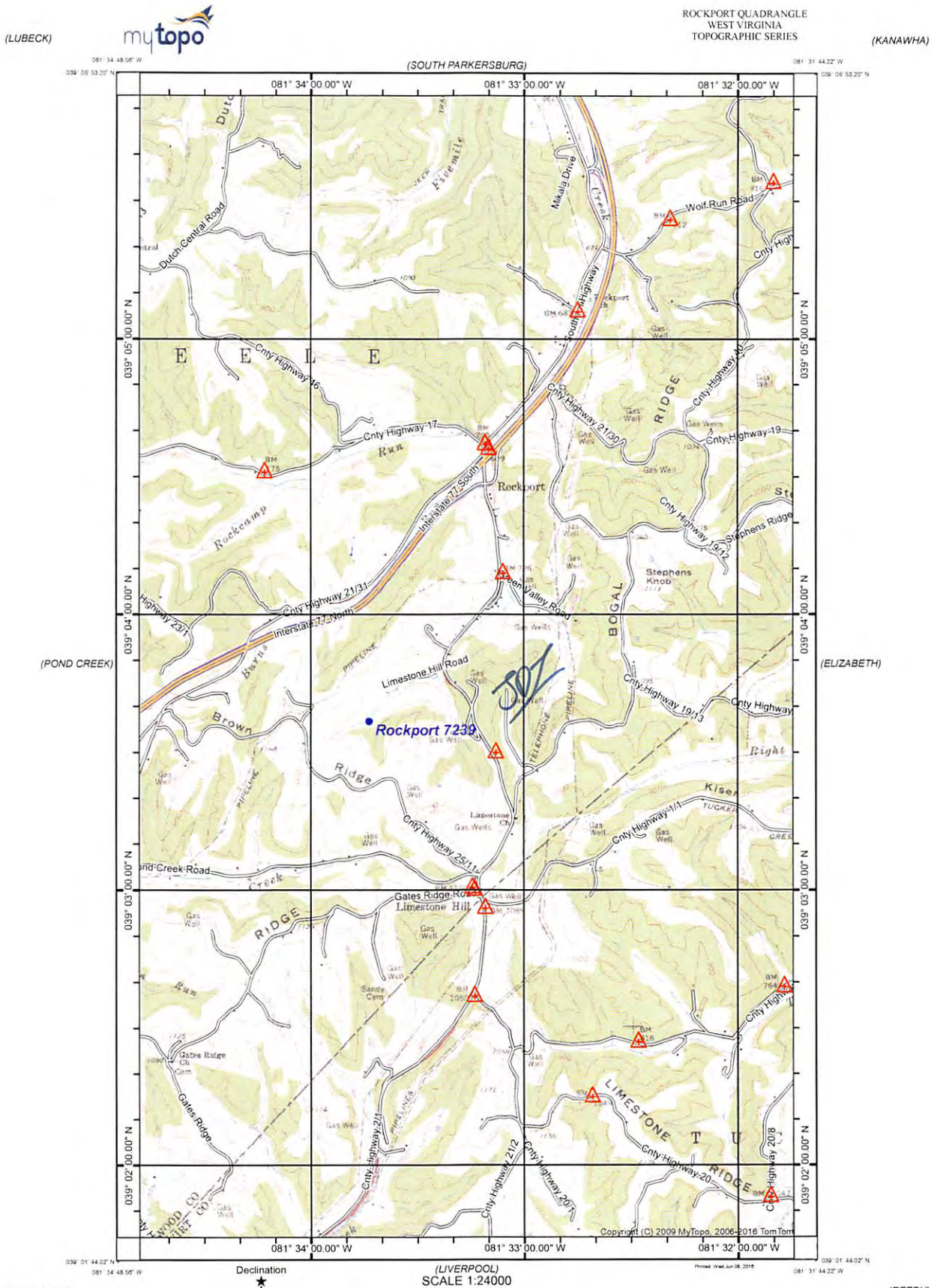
CC: William J. Toomey

350 Capitol Street, Room 313
Charleston, West Virginia 25301-3713
Telephone: (304) 558-2981


WV DEP Reclamation Plan 1 of 2 (Overview)
Rockport storage well 7239
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
21
existing drive
7% grade
Rt 21
10% grade
1% grade
1% grade
1% grade
existing lease road
3% grade
Rockport - 07239
Google earth
© 2016 Google
N
700 ft


WV DEP Reclamation Plan 2 of 2 (Site Detail)
Rockport storage well 7239
stream
existing lease road
<2% grade
<4% grade
ECD
100 ft
300 ft
<2% grade
Rockport - 07239
Limits of Disturbance
stream
<2% grade
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
© 2016 Google
stream
N
100 ft

10700305P



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 9M N and 13M E

ROCKPORT, WV
1960

10700305P

WW-7
8-30-06

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

API: 107-00305 **WELL NO.:** 7239

FARM NAME: W. F. Brown (WV DEP Cabot Corporation)

RESPONSIBLE PARTY NAME: Columbia Gas Transmission, LLC

COUNTY: Wood **DISTRICT:** Steele - 4

QUADRANGLE: Rockport, WV - 583

SURFACE OWNER: Leah R. & Robert F. Dent

ROYALTY OWNER: N/A - storage lease 1052281-000

UTM GPS NORTHING: 4323633.1 m

UTM GPS EASTING: 451368.8 m **GPS ELEVATION:** 250.9 m (823')

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 X: Post Processed Differential X

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.

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Signature | SR ENGINEER Title | 6/8/16 Date