



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, May 18, 2020
WELL WORK PERMIT
Vertical / Re-Work

COLUMBIA GAS TRANSMISSION, LLC
STORAGE TECHNICAL SERVICES - 6TH FLOOR
1700 MACCORKLE AVE. SE.
CHARLESTON, WV 25314

Re: Permit approval for COCO "A" 7226
47-039-01594-00-00

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: COCO "A" 7226
Farm Name: NEWHOUSE, DAVID & SHARON
U.S. WELL NUMBER: 47-039-01594-00-00
Vertical Re-Work
Date Issued: 5/18/2020

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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

α# 051416
\$900
4/12/2020

47-039-01594W

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

1) Well Operator: Columbia Gas Transmission, LLC 307032 Kanawha Elk Blue Creek, WV
Operator ID County District Quadrangle

2) Operator's Well Number: Coco A 7226 3) Elevation: 1050.8'

4) Well Type: (a) Oil _____ or Gas X
(b) If Gas: Production _____ / Underground Storage X
Deep X / Shallow _____

5) Proposed Target Formation(s): Oriskany Proposed Target Depth: 5334'

6) Proposed Total Depth: 5355' Feet Formation at Proposed Total Depth: Oriskany

7) Approximate fresh water strata depths: None reported by driller in 1953.

8) Approximate salt water depths: 1000'-1003'. Hole full of water from 1075'-1080' as reported by the driller in 1953.

9) Approximate coal seam depths: 305'-307'; 414'-417'.

10) Approximate void depths,(coal, Karst, other): None reported by driller in 1953.

11) Does land contain coal seams tributary to active mine? No.

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Pull 2-3/8" tubing. Log well. Install new API wellhead. Perform a coiled tubing cleanout using foamed treated fresh water and nitrogen. Acidize well with 1000 gals HCl.

Accepted
4-17-20

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13-3/8"			1598'	0'	N/A
Fresh Water	10-3/4"	H-40	36	1668'	1668'	284 sx.
Coal						
Intermediate						
Production	5-1/2"	J-55	15.5	5238'	5238'	1086 sx.
Tubing	2-3/8"	J-55	4.6		5229'	
Liners						

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WV Department of
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Packers: Kind: N/A

Sizes: _____

Depths Set _____

WR-35

11-Mar-99
API # 47- 39-01594 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm name: NEWHOUSE, DAVID & SHARON Operator Well No.: COCO "A" 7226

LOCATION: Elevation: 1,053.00 Quadrangle: BLUE CREEK

District: ELK County: KANAWHA
Latitude: 3600 Feet South of 38 Deg. 25Min. 0 Sec.
Longitude: 7050 Feet West of 81 Deg. 25 Min. 0 Sec.

Company: COLUMBIA GAS TRANSMISSION
P. O. BOX 1273
CHARLESTON, WV 25325-1273

Agent: RICHARD L. COTY

Inspector: CARLOS HIVELY
Permit Issued: 03/12/99
Well work Commenced: 05-03-99
Well work Completed: 05-20-99
Verbal Plugging
Permission granted on: _____
Rotary _____ Cable _____ Rig _____
Total Depth (feet) 5355'
Fresh water depths (ft) _____
Not Reported

Salt water depths (ft) _____
1000', 1075'

Is coal being mined in area (Y/N)? No
Coal Depths (ft): Not Reported

July 17-20

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
14"		20'	-
10-3/4"	36 lb	1668'	284 sx
5-1/2"	15.5 lb	5238'	1086 sx
2-3/8"	4.6 lb	5237'	

OPEN FLOW DATA * Storage well - Rates and pressures variable

Producing formation Oriskany Pay zone depth (ft) 5334' - 5355'
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow N/A MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure N/A psig (surface pressure) after N/A Hours

Second producing formation _____ 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

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.

For: COLUMBIA GAS TRANSMISSION CORP.
By: *Paul Amick* Paul Amick
Date: 07/09/99

*Mailed to J Stevens
7/14/99
KA*

47-039-01594 W

United Fuel Gas Company
COMPANY

SERIAL WELL NO. **I-52-7226** **DEED NO. 27463** MAP SQUARE **72-43**

RECORD OF WELL NO. I-52-7226 on the United Fuel Gas Co. MIN. farm of 31-1/2 Acres in Elk District Kanawha County State of W. Va. Field: Glendonin Rig Commenced 19 Rig Completed 19 Drilling Commenced 10/21/53 19 Drilling Completed 19 Drilling to cost per foot Contractor is: R. H. Adkins Address: Hamlin, W. Va. Driller's Name Ben C. Warren G. P. Pinkerton Elevation:	CASING AND TUBING				TEST BEFORE SHOT
	SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	
	13-3/8"	401	1596'	None	20 /10 of Water in 7" 220 inch
	10-3/4"	101	320	1809	/10 of Merc. in _____ inch Volume 1,929,000 Cu. ft.
	7"	201	753	None	TEST AFTER SHOT
	5"	15.51	5397	5293	80 /10 of Water in 7" 220 inch
	2-3/8"	4.68	5447	5384	/10 of Merc. in _____ inch Volume 2,050,000 Cu. ft.
					Hours After Shot
					Rock Pressure 72 MP. 725'
					Date Shot 4/19/54
					Size of Torpedo 20 lbs. 2110
					SHUT IN
					Date 4/19/54
					Oil Flowed _____ bbls. 1st 24 hrs.
					Oil Pumped _____ bbls. 1st 24 hrs.
					Tubing or _____ 2 in.
					Size of Packer None
					Well abandoned and _____
					Kind of Packer _____
					Plugged _____
					1st Perf. Set _____ from _____
					2nd Perf. Set _____ from _____

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Surface	0	15		<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> TU 4-17-20 </div> Columbia 47-039-01594-D
Blue Slate	15	39		
Sand	39	49		
Slate	49	59		
Sand	59	85		
Slate	85	105		
Sand	105	165		
Slate and Shells	165	205		
Sand	205	250		
Slate and Shells	250	265		
Sand	265	305		
Coal	305	307		
Slate	307	317		
Lime	317	327		
Slate	327	414		
Coal	414	417		
Sand	417	460		

SERIAL WELL NO. 4-12-7226

DEED
 ANNE NO. 2743

47-039-015941
 MAP SQUARE 72-4

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Slate	440	460		
Sand	460	555		
Slate	555	570		
Sand	570	620		
Slate	620	650		
Sand	650	790		
Slate	790	820		
Sand	820	840		
Slate	840	914		
Sand	914	1135		Water 1/2 barrel 1000' to 1005'
Slate	1135	1136		Hole full water 1975' to 1080'
Sand	1136	1183		
Slate	1183	1200		
Sand	1200	1309		
Broken Sand	1309	1395		
Sand	1395	1470		
Slate	1470	1485		
Red Rock	1485	1505		
White Slate	1505	1550		
Red Rock	1550	1560		
Slate and Shells	1560	1565		
Maxon Sand	1565	1585		
Slate	1585	1595		
Little Linn	1595	1632		
Pencil Cave 1632	1632	1669		
Big Linn	1669	1794		
Slate and Shells	1794	1812		
Red Injun	1812	1854		
Slate and Shells	1854	1860		
Wier Sand	1860	2050		
Slate and Shells	2050	3991		Hole Reduced at 2520' to 8-1/2"
Brown Shale	3991	4058		
Slate and Shells	4058	4850		
Brown Shale	4850	5110		
Black Shale	5110	5135		
Gray Shale	5135	5163		
Brown Shale	5163	5181		S. L. M. Top of Corniferous

Columbia Gas Co. Inc.
 47-039-015941

WW-2A
(Rev. 6-14)

1.) Date: 3/16/2020
2.) Operator's Well Number Coco A 7226
State County Permit
3.) API Well No.: 47-039-01594

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

4) Surface Owner(s) to be served:
(a) Name David & Sharon Newhouse
Address P.O. Box 732
Pinch, WV 25156
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Terry Urban
Address P.O. Box 1207
Clendenin, WV 25045
Telephone 304-549-5915
5) (a) Coal Operator
Name Not operated.
Address _____
(b) Coal Owner(s) with Declaration
Name Barbara F. Leqq
Address 3447 Norman Drive
Charleston, WV 25306
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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WV Department of
Environmental Protection

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas
X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:
Personal Service (Affidavit attached)
X Certified Mail (Postmarked postal receipt attached)
Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Columbia Gas Transmission, LLC
By: James Amos
Its: Team Leader - Well Engineering & Technology
Address: 48 Columbia Gas Rd
Sandvville, WV 25275
Telephone: 304-483-0073
Email: james.amos@tcenergy.com

Subscribed and sworn before me this 14th day of April, 2020

My Commission Expires 9-19-2022

Oil and Gas Privacy Notice



The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a condition of doing business. 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

WW-2A Surface Waiver (4/16)

SURFACE OWNER WAIVER

County 039

Operator Operator well number

Columbia Gas Trans LLC Coco A 7226

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

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

Time Limits and methods for filing comments. The law requires the operator files his Application. You have FIFTEEN (15) DAYS after the application is received in the mail by the Chief's office by the date. Check with your postmaster to ensure adequate postage. If you have been contacted by the well operator and you have signed the work described in these materials, then the permit may be issued.

Comments must be in writing. Your comments must include the well operator's name and well number and the approximate location of the application. You may add other documents, such as sketches or photographs.

The Chief has the power to deny or condition a well work permit if:

- 1) The proposed well work will constitute a hazard to the surface owner.
2) The soil erosion and sediment control plan is not adequate.
3) Damage would occur to publicly owned lands or resources.
4) The proposed well work fails to protect fresh water sources.
5) The applicant has committed a substantial violation of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation.

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, WW-9, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Signature Date

Company Name Columbia Gas Transmission, LLC By Team Leader - Well Eng & Tech Its James Amos Date

Print Name

Signature Office of Oil and Gas Date

APR 21 2020

WV Department of Environmental Protection

U.S. Postal Service CERTIFIED MAIL RECEIPT Domestic Mail Only. Includes postage fees, recipient address (DAVID & SHARON NEWHOUSE, PO Box 732, PINCH WV 25156), and a postmark dated APR 15 2020.

WW-2A Coal Waiver

* coal not operated

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Kanawha

Operator Columbia Gas Transmission, LLC

Operator's Well Number Coco A 7226

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. 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.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Signature

Date

Company Name
By
Its

Date

Signature

Date

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Office of Oil and Gas

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**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

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

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

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Blue Creek Oil and Gas Company	Ohio Fuel Company	Lease No. 1027461-800	Bk. 171 / Pg. 408

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

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

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

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

Well Operator:
By: Its:

James Amos 
 Columbia Gas Transmission, LLC
 Team Leader - Well Engineering & Technology

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WV Department of
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WW-2B1
(5-12)

Well No. Coco A 7226

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contractor chosen to collect sample.

Certified Laboratory Name _____
Sampling Contractor _____

Well Operator Not applicable - existing underground natural gas storage well.
Address _____
Telephone _____

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

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47-039-01594W

WW-9
(5/16)

API Number 47 - 039 - 01594
Operator's Well No. Coco A 7226

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) Lower Three Mile Fork of Blue Creek Quadrangle Blue Creek, 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 TU 417-20

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 34-119-28776, 34-167-23862)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Appalachian Water Services, Masontown, PA (permit 2608201))

Will closed loop system be used? If so, describe: Yes - steel piping connecting wellhead and tank(s).

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A - No drilling planned.

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

Additives to be used in drilling medium? No drilling planned; fresh water, polymer, starch, LCM, surfactant, HCl acid, iron control (for clean-out and stimulation)

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A - No drilling planned.

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

-Landfill or offsite name/permit number? If needed: Rumpke Beech Hollow Landfill - Wellston, OH

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 Amos

Company Official (Typed Name) James Amos

Company Official Title Team Leader - Well Engineering & Technology

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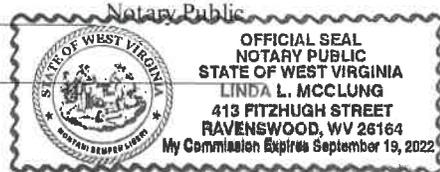
APR 21 2020

Subscribed and sworn before me this 14th day of April, 2020

WV Department of
Environmental Protection

Linda L. McClung

My commission expires 9-19-2022



Proposed Revegetation Treatment: Acres Disturbed 0.2 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 7

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
Annual Rye	40	Orchard Grass and/or Tall Fescue	29
Hay or Straw	6000	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: [Signature]

Comments: _____

Title: Inspector Del Rio

Date: 4-17-20

Field Reviewed? Yes No

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APR 21 2020
WV Department of
Environmental Protection

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): Lower Three Mile Fork of Blue Creek Quad: Blue Creek, WV
Farm Name: Blue Creek Oil & Gas Co.

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 and well treatment fluids 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 and well servicing equipment will be monitored and inspected daily for leaks. Fluid pumping well service equipment will have secondary containment under all leak paths. 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.

Lower Threemile Fork - 0.10 mi.
15 mi. from WHPA (Ripling Waters Campground).
Within ZPC (WVAWC Kanawha Valley Dist).

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

N/A

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

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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 and well servicing equipment will be monitored and inspected daily for leaks or spill.

Signature: 

Date: 4/1/20

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From: Carr, Brian A (DHHR)
To: [Brad Nelson](#)
Subject: [EXTERNAL] data request
Date: Wednesday, March 18, 2020 11:50:15 AM

This letter is in response to the informational request dated March 17, 2020 concerning a Head Protection Area Evaluation in Kanawha and Jackson Counties, WV.

Based on the current information, we have found that the Gas Storage wells do not intersect with public water sources but intersect Protection Areas.

Attached are two tables showing the public water sources/ intakes and protection areas closest /intersect to the locations.

CLOSEST ACTIVE PUBLIC WATER				
Gas Storage Name	Distance	PWSID	Source	System Name
Coco A well 7226	11 miles	WV3302016	Surface Water (SW)	WVAWC KANAWHA VALLEY DIST
Ripley well 7344	6 miles	WV3301810	Ground Water (GW)	RAVENSWOOD MUNICIPAL WATER WORKS
Coco C well 7325	13 miles	WV3302016	Surface Water (SW)	WVAWC KANAWHA VALLEY DIST

PROTECTION AREAS			
Gas Storage Name	Distance	PWSID	System Name
Coco A well 7226	15 miles from WHPA	WV9918017	RIPLING WATERS CAMPGROUND
	within ZPC	WV3302016	WVAWC KANAWHA VALLEY DIST
Ripley well 7344	5 miles from WHPA	WV3301810	RAVENSWOOD MUNICIPAL WATER WORKS
	4 miles from ZPC	WV3301811	RIPLEY CITY OF
Coco C well 7325	13 miles from WHPA	WV9918017	RIPLING WATERS CAMPGROUND
	within ZPC	WV3302016	WVAWC KANAWHA VALLEY DIST

Brian A. Carr, P.G. | Program Manager
 Office of Environmental Health Services
 Source Water Assessment & Protection
 350 Capitol Street, Room 313
 Charleston, West Virginia 25301
 Office 304.356.4298

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WV DEP Reclamation Plan - Overview

Coco A well 7226 (API 039-01594)

- BMPs and erosion control devices to be utilized per WV DEP guidelines and Columbia's WV Environmental Construction Standards
- Existing drainage, culverts, and road ditches to be maintained.
- Minor grading and surface material to be applied as needed.



Google Earth

Existing Access Road

Coco A 07226

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Legend

- Coco A - 07226
- Coco A 7226 Access Route
- Coco A 7226 LOD

300 ft

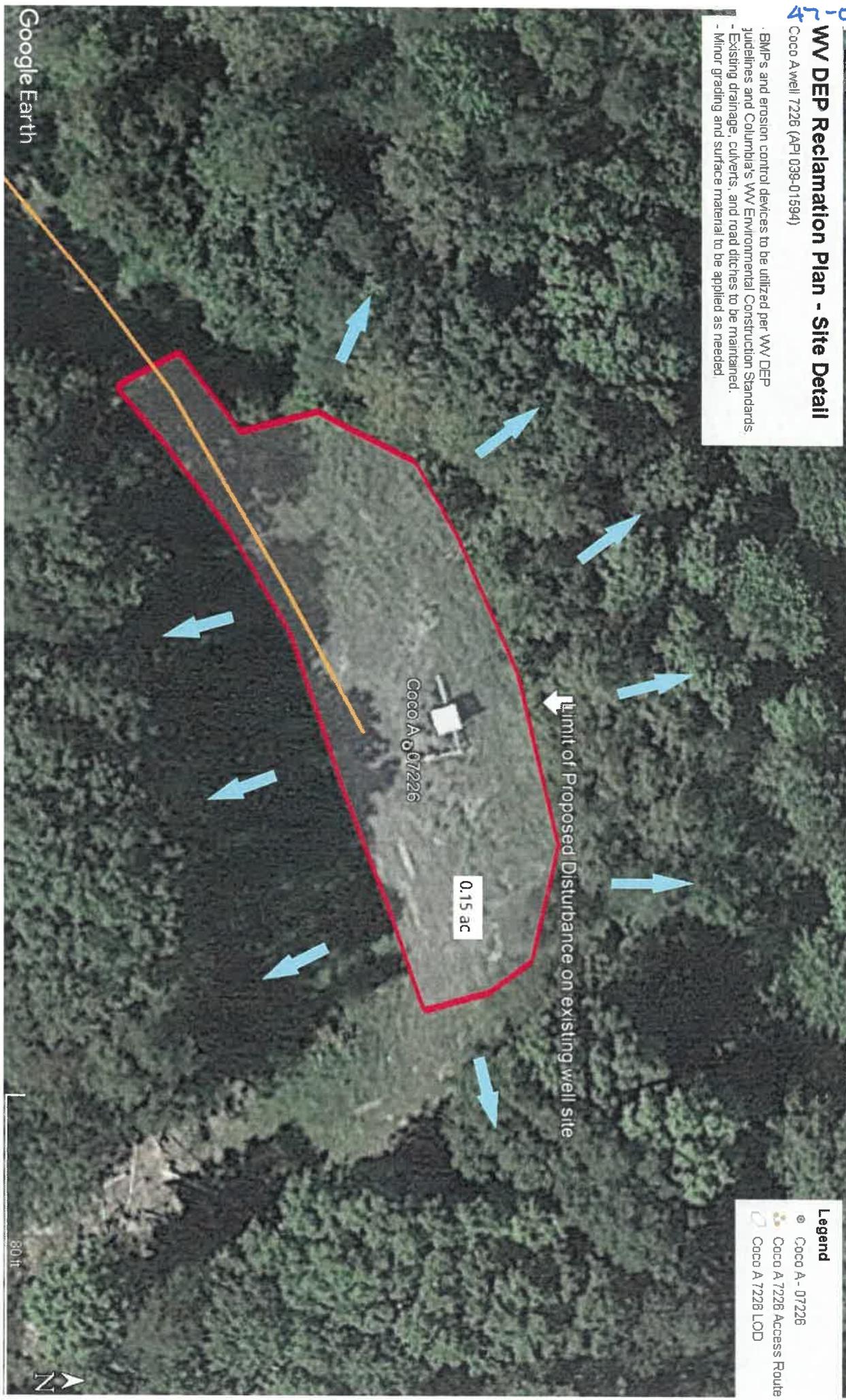


47-039-01594N

WV DEP Reclamation Plan - Site Detail

Coco A well 7226 (API 039-01594)

- BMPs and erosion control devices to be utilized per WV DEP guidelines and Columbia's WV Environmental Construction Standards
- Existing drainage, culverts, and road ditches to be maintained.
- Minor grading and surface material to be applied as needed



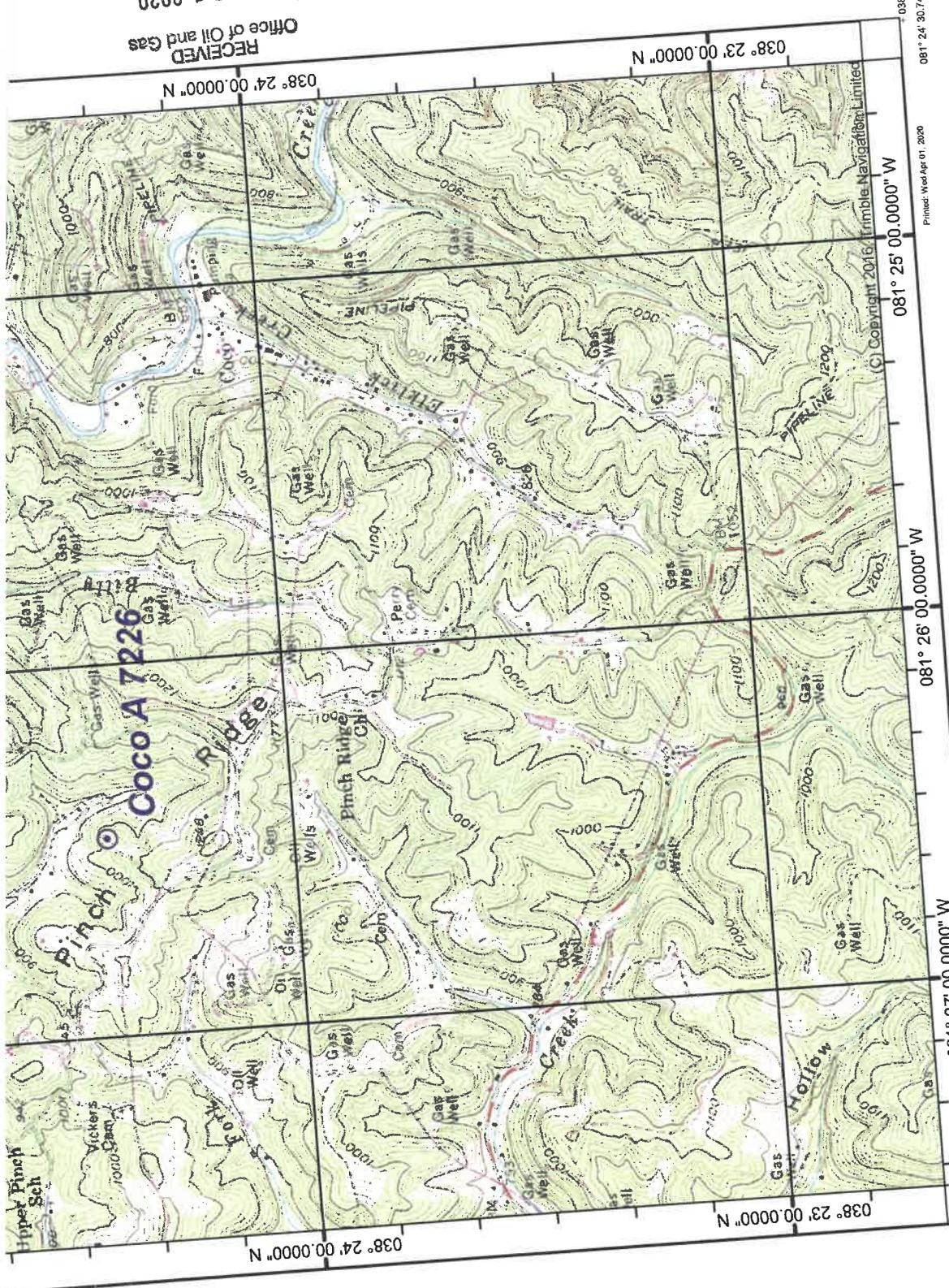
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Legend

- Coco A - 07226
- 🌳 Coco A 7226 Access Route
- 📍 Coco A 7226 LOD

47-051-0151

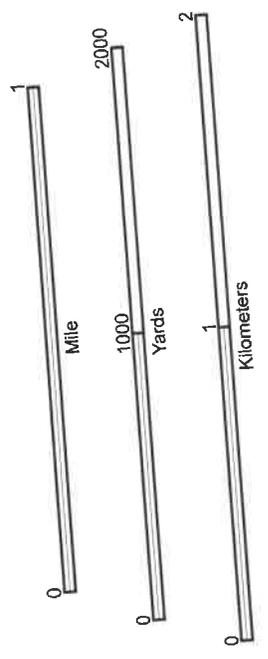
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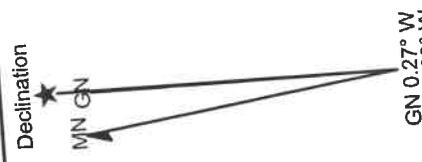
(MAMMOTH)

38081-D3-TM-024
BLUE CREEK, WV
JAN 1, 1977

(QUICK)
SCALE 1:24000



CONTOUR INTERVAL 20 FT



(CHARLESTON EAST)

Produced by Trimble Terrain Navigator Pro
Topography based on USGS 1:24,000 Maps
North American 1983 Datum (NAD83)
To place on the predicted North American 1927 move the
projection lines 11M N and 14M E

038° 22' 40.0250" N
081° 27' 33.5317" W

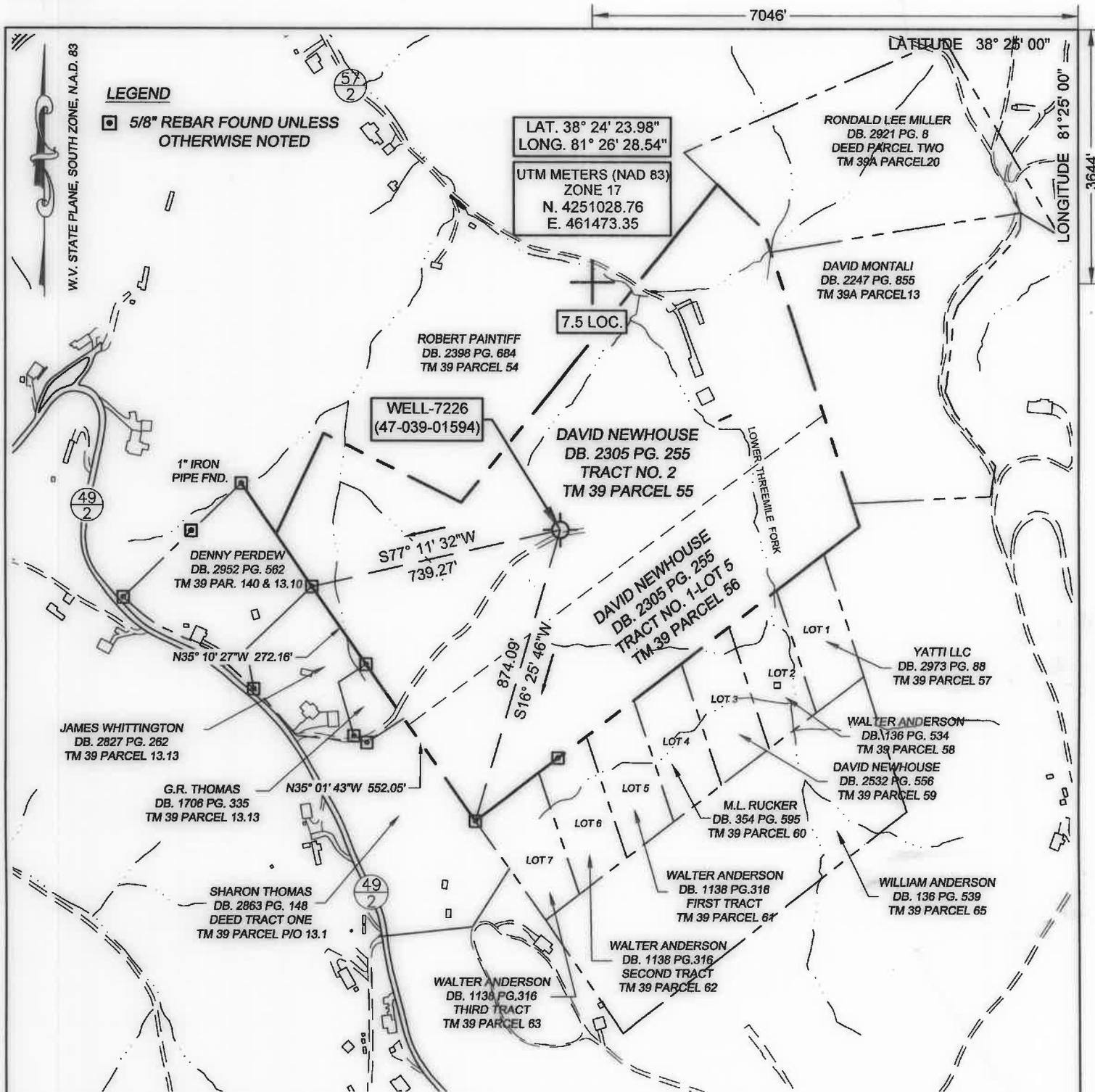
Declination

MN GN

GN 0.27° W

038° 23' 00.0000" N
081° 24' 30.7467" W
038° 24' 00.0000" N
081° 25' 00.0000" W
081° 26' 00.0000" W
081° 27' 00.0000" W
038° 23' 00.0000" N
038° 24' 00.0000" N

Printed: Wed Apr 01, 2020
(C) Copyright 2016, Trimble Navigation Limited



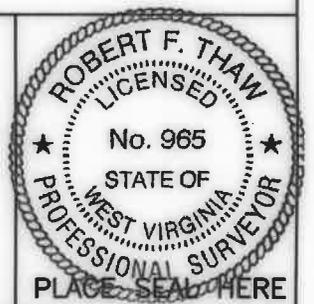
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE No 1901-2345-001-004
 DRAWING No. 1901-2345-001-004
 SCALE 1"=400'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION TRIMBLE R10
GPS UNIT

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

(SIGNED) R. F. Thaw

ROBERT F. THAW PS #965



STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 NITRO, WV



DATE FEBRUARY 20 2020
 OPERATOR'S WELL No. 7226
 API WELL No. 47 039 - 01594w

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL STATE COUNTY PERMIT
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1050.8' WATER SHED LOWER THREE MILE FORK OF BLUE CREEK
 DISTRICT ELK COUNTY KANAWHA
 QUADRANGLE BLUE CREEK, WV

SURFACE OWNER DAVID & SHARON NEWHOUSE ACREAGE 10.5
 OIL & GAS ROYALTY OWNER COLUMBIA GAS TRANS. CORP. ET AL LEASE ACREAGE 31.5
 LEASE No. 27461

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 5355
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT JIM AMOS
 ADDRESS PO BOX 1273, CHARLESTON, WV 25325-1273 ADDRESS 48 COLUMBIA GAS ROAD SANDYVILLE, WV 25275

FORM IV-6 (8-78)

WV DEP Office of Oil & Gas Permit Application Check-off

Well Coco A 7226

- 1. Survey plat
- 2. Surface owner name & address
- 3. Site Reclamation Plan
- 4. Topo map
- 5. Copy of old State Completion Report
- 6. Wellhead Protection Area Assessment
- 7. Application package prepared
- 8. Approved by State Inspector
- 9. Signed & notarized
- 10. Water Well Testing Reqr'mts N/A - EXISTING WELL
 - Only required if drilling new well
- 11. Surface Owner Waiver
 - Provide copy of entire permit application to surface owner
 - Include Certified Mail return receipt if mailed
- 12. Coal Operator Waiver N/A - COAL NOT OPERATED
 - Only required if coal is currently mined/operated
 - Include Certified Mail return receipt if mailed
- 13. Coal Owner Waiver N/A
 - Include Certified Mail return receipt if mailed
- 14. Sent to the State with Fee (fee estimated @ \$ 900)
 - Ensure mylar copy of survey plat included
 - Include certified mail receipt if Surface Owner Waiver mailed
- 15. Emergency Evacuation Plan
 - Only required if "Deep Well"

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1701 MacCorkle Ave SE
P.O. Box 1273
Charleston, WV 25325

April 15, 2020

David & Sharon Newhouse
P.O. Box 732
Pinch, WV 25156

Columbia Gas Transmission, LLC is applying for a permit to the WV Department of Environmental Protection – Office of Oil and Gas, to work on an existing underground natural gas storage well located on property owned by you. As reference, the field and well ID is Coco A 7226 7344 (API 47-039-01594).

As part of the well permitting process, Columbia, the well operator, is required to provide a copy of all applicable permit application forms for your review and record retention.

Regards,

A handwritten signature in black ink, appearing to read "Jim Amos", is written over a large, faint, stylized watermark of the same name.

Jim Amos
Team Leader
Well Engineering & Technology
Columbia Gas Transmission, LLC

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

April 15, 2020

WV DEP – Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304-2345

Enclosed are well work permit applications for the following Columbia Gas Transmission existing storage wells:

Coco A 7226 (API 039-01594)
Coco C 7325 (API 039-01575)

Please return permit to:

Columbia Gas Transmission
48 Columbia Gas Rd
Sandyville, WV 25275
Attn: Jim Amos

If you have questions, feel free to call.

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Regards,

Jim Amos
Team Leader
Well Engineering & Technology
Columbia Gas Transmission, LLC
Off: 304-373-2412
Mob: 304-483-0073

CK# 051416
Amit 5 900
Date 4/2/20