



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Friday, September 25, 2026
WELL WORK PERMIT
Vertical / Re-Work

COLUMBIA GAS TRANSMISSION, LLC
1700 MACCORKLE AVENUE SE

CHARLESTON, WV 25314

Re: Permit approval for 7304
47-035-00489-00-00

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.

H. Jason Harmon
Chief

Operator's Well Number: 7304
Farm Name: COLUMBIA GAS TRANSMISSION
U.S. WELL NUMBER: 47-035-00489-00-00
Vertical Re-Work
Date Issued: 9/25/2026

Promoting a healthy environment.

09/25/2026

4703500489

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 Jackson Ravenswood Sandyville WV
Operator ID County District Quadrangle

2) Operator's Well Number: Ripley 7304 3) Elevation: 618.4

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: 4808

6) Proposed Total Depth: 4808 Feet Formation at Proposed Total Depth: Oriskany

7) Approximate fresh water strata depths: 205', 465', 695', 1220'

8) Approximate salt water depths: 1285', 1520'

9) Approximate coal seam depths: None reported by driller

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

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)

13) **CASING AND TUBING PROGRAM**

***existing**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor	16				85	
Fresh Water	13-3/8		48	529	0	
Coal	10-3/4		48	1303	0	
Intermediate	8-5/8		24	1951	0	
Production	7		22		4730	
Production	4-1/2	J-55	12.6		4808	354 sx, maybe at surface
Production						

Packers: Kind: _____
Sizes: _____
Depths Set _____

09/25/2026

WW-2A
(Rev. 6-14)

1). Date: 08/18/26
2.) Operator's Well Number Ripley 7304
State 47- County 035 Permit 00489
3.) API Well No.:

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 United Fuel Gas Co
Address (Columbia Gas - TC Energy)
RT 2 Box 138
(b) Name Sandyville, WV 25275
Address _____
(c) Name _____
Address _____
6) Inspector Joe Taylor
Address 122 Bath Rd
Charleston, WV 25312
Telephone 304-380-7469
5) (a) Coal Operator
Name Not operated
Address _____
(b) Coal Owner(s) with Declaration
Name Not operated
Address _____
(c) Coal Lessee with Declaration
Name Not operated
Address _____
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WV Department of
Environmental Protection

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas
OR

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: Maria Medvedeva
Its: Senior Wells Engineer Storage Technical Services
Address: 1700 MacCorkle Ave SE
Charleston WV 25314-1273
Telephone: 304-410-4313
Email: maria_medvedeva@tcenergy.com

Subscribed and sworn before me this 18th day of August, 2026

[Signature] Notary Public
My Commission Expires 6/30/31

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

09/25/2026

SURFACE OWNER WAIVER

County Jackson

Operator

Columbia Gas Transmission LLC

Operator well number

Ripley 7304

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

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Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

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

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons;
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more 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 7-9-2026

Company
Name
By
Its

Date

Chad Vintorini

Print Name

Signature

Date

09/25/2026

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

* coal not operated

County Jackson

Operator Columbia Gas Transmission LLC

Operator's Well Number Ripley 7304

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

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WAIVER

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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.

_____	Date _____	Company Name _____	_____
Signature		By _____	_____
		Its _____	Date _____
		Signature _____	Date _____

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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
Inez Spears Anderson, et al	United Fuel Gas Company	Storage Lease - 52239	84 / 103

**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

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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:

Columbia Gas Transmission, LLC
Maria Medvedeva
Senior Wells Engineer Storage Technical Services



09/25/2026

WW-2B1
(5-12)

Well No. Ripley 7304

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.

WW-2B1
Office of Oil and Gas

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WW-9
(5/16)

API Number 47 - 035 - 00489
Operator's Well No. Ripley 7304

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) Mud Run of 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: N/A

Will a synthetic liner be used in the pit? Yes ☐ No ☒ If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

- ☐ Land Application (if selected provide a completed form WW-9-GPP)
☒ Underground Injection (UIC Permit Number 34-167-23862)
☐ Reuse (at API Number _____)
☐ Off Site Disposal (Supply form WW-9 for disposal location)
☒ Other (Explain Mud Master 64054; Reserve Environmental Services (WMGR 123SW008)
Appalachian Water Services (WMGR 123SW001)

Will closed loop system be used? If so, describe: yes - steel flow line to tanks

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

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

Additives to be used in drilling medium? NaCl, biocide, soda ash, polymer, starch, CaCO₃, KCl, HCl

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

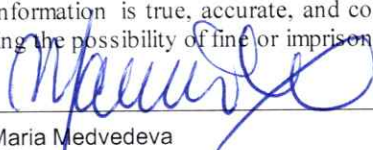
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? To be managed by Waste Management and US Ecology for disposal at permitted landfill

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.

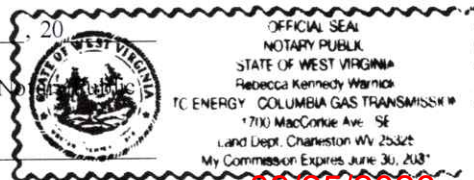
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations 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 
Company Official (Typed Name) Maria Medvedeva
Company Official Title Senior Wells Engineer Storage Technical Services

Subscribed and sworn before me this 18th day of August 2026

My commission expires 6/30/31



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Proposed Revegetation Treatment: Acres Disturbed < 1.0 Prevegetation pH 6-7Lime 2 Tons/acre or to correct to pH 7-8Fertilizer type 10-10-10Fertilizer amount 600 lbs/acreMulch hay or straw @ 2 Tons/acreSeed Mixtures

Temporary		Permanent	
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

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: Joc Taylor

Comments: _____

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Title: COG InspectorDate: 8-25-26

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): Mud Run of Sandy Creek

Quad: Sandyville WV

Farm Name: Inez Spears Anderson Et

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

No fluids planned to be discharged. No fertilizer will be stored on site. Fuel, oil, and lubricants will be stored on site, but located within secondary containment. Accidental spills from construction equipment, well treatment fluids, and produced well fluids are the only possible source of contamination to groundwater. Drilling and flowback fluids to be stored in tanks. All accumulated fluids to be hauled off site to UIC disposal facility.

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. Tanks to be monitored daily for leaks. Spill kits will be on site.

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

Mud Run is at a distance of 0.19 miles E.

Ravenswood Municipal Water Works WV3301810 is the closest Well Head Protection Area at a distance of 5.7 miles NW from discharge area.

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 and JSA meetings groundwater protection will be a topic of discussion.

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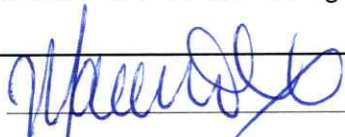
8. Provide provisions and frequency for inspections of all GPP elements and equipment.

No fertilizer will be stored on site. Fuel, oil, and lubricants will be stored on site, but located within secondary containment. Spills from construction equipment, well treatment fluids, and produced well fluids are the only possible source of contamination to groundwater.

All construction and well servicing equipment will be monitored and inspected daily for leaks or spills.

Signature: _____

Date: _____


08/18/26


8-25-26

09/25/2026

WELL JOB PLAN		STS Well Engineering & Technology		PAGE 1	DATE JOB PREPARED: 1/31/2025	
Objective: Deliverability restoration						
TITLE: CTCO				WORK TYPE: Deliverability Restoration		
FIELD: Ripley		WELL ID: 7304		LEASE #: 52239		
STATE: WV		SHL (Lat/ Long): 38.876986 -81.692329		API: 47-035-00489-0000		
IST/TWP: Ravenswood		BHL (Lat/Long): 38.876986 -81.692329		CNTY: Jackson		
EXISTING TUBULAR CONFIGURATION		OD (inches)	WEIGHT (PPF)	GRADE	THREAD	DEPTH (ft)
						WELLLINE #: X59W7304
						FORMATION NOTES TOP (ft) BOTTOM (ft)
conductor		16	72.7			Sand FW 205, 465, 1490 1620
surface						Onondaga 4687 4797
intermediate		7	22.0			Oriskany 4797 4808
Midget bttm hole packer		7	* estimated depth			TD 4808
production		4 1/2	12.6	J-55		
W & A packer		6.4 x 4	* estimated depth			
production (Slotted)		4 1/2	12.6	J-55		
		3.958 ID				
Refer to "Wellbore Diagram" tab						
Wellhead		API 5k wellhead, 4-1/2" 8 rnd connection				
CEMENT INFO				Calc TOC (ft)	ELEVATIONS (ft)	
7	No record to verify, but 1954 recondition report states scope to cmt all strings.				KB-GL:	
4 1/2	Database entry by Mr. Burbank states 4 1/2 cemented with 354 sacks cement (between all strings and 4 1/2 to surface)			maybe @ surface	KB-RF:	
					GL: 618	
MISC INFORMATION				DIRECTIONAL WELL PROFILE (as applicable)		
REFER TO WELL SUMMARY RPT, WBD for Wellbore Schematic, ELOG, etc tabs in this workbook for additional information				Vertical well profile		
Kill Fluid Calculation * Note that kill fluid calculation tabs are hidden						
Maximum calculated bottom-hole pressure (reference only):		1922	psig	* input		
Maximum storage field surface pressure (MAOP):		1675	psig	* input		
Well TD:		4808	ft TVD	* input		
Top of storage zone:		4797	ft TVD	* input		
Calculated maximum BH pressure at top of zone:		1896	psig	* output Kill Fluid (TOZ)		
Kill fluid density at top of zone @:		150	psi OB	8.20	ppg	* output Kill Fluid (TOZ)
Proposed depth of BP:		4797	ft TVD	* input		
Calculated maximum BH pressure at depth of BP:		1896	psig	* output Kill Fluid (BP)		
Kill fluid density at depth of BP @:		150	psi OB	8.20	ppg	* output Kill Fluid (BP)
Required minimum kill fluid density:		8.3	ppg	* greater of the two		
Current AOF:		19,967 MCF/D				
Top historical AOF:		31,865 MCF/D				
Last MVRT:		Baker 07/29/2022 noted class 2 defect at 4497' of 30% (isolated external)				
SBT:		Baker 07/29/2002 ran from 4750' to 446' indicates poor to partial cement quality.				
PROPOSED YEAR: 2027		ERCB PERMIT REQD: YES _____ NO <u>X</u> _____		(Internal) PDS Required: YES _____ NO _____		
PREPARED BY: Maria Medvedeva		DT. APPLIED: ISSUED:		APPROVED: Brent Criser		
PREP DATE: 1/31/2025		REVIEWED BY: James Amos				

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[Signature]
8-25-26

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WELL JOB PLAN		STS Well Engineering & Technology		PAGE 2	DATE JOB PREPARED: 1/31/2025
Objective: Deliverability restoration				WORK TYPE:	
TITLE: CTCO					
FIELD: Ripley	WELL: 7304				
STAT: WV	SHL (Lat/Long):	38.876986 -81.692329	API:	52239	
TWP: Ravenswood	BHL (Lat/Long):	38.876986 -81.692329	CNTY:	47-035-00489-0000	

PROCEDURE

Notes: History of annulus pressure issues with limiting MAASP.

Maintain communication with WVDEP Inspector during well operations to ensure compliance with WV Code.

- Obtain State well work permit, EM&CP, pipeline crossing evaluation, call before you dig, etc. Prepare site specific SPCC.
- Notify landowner.
- Obtain General Work Permit and Wellsite Review & Turnover Form from Operations.
- Notify Reservoir Engineering & Geosciences (REG) of intent to take well out of service.
- Notify environmental inspector prior to beginning work. If required, notify State/Federal regulatory agencies prior to beginning work.
- Disconnect well line.
- Prepare access road and well site. Install ECD's per EM&CP.
- Service all wellhead valves.
- Document and report to WE&T the initial casing and annular pressures.
- MIRU 1.75" CTU.
- Flow well. If well will not flow, unload with nitrogen.
- Perform CTCO and 2000 gallons of 15% HCL treatment.
- RDMO CTU.
- Flow well to recover treatment fluids.
- Perform final 45-min flowback test thru 3/4" choke.
- Reconnect well line.
- Notify WET Project Support that well is back in-service.
- Reclaim R&L.
- Commission well by completing, processing, and retain for records the Wellsite Review and Turnover Form.
- Notify REG that well is ready for storage service.

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Environmental Protection

[Signature]
8-25-26

PREPARED BY: Maria Medvedeva	REVIEWED BY: James Amos	APPROVED: Brent Criser
PREP DATE: 1/31/2025		

09/25/2026

Ripley 7304 (API 47-035-00489) - CTCO and Acid Treatment

API 5K wellhead, 4-1/2" FS x 7" support

4-1/2" 12.6# J-55 csg set at 4808'

Casing Capacity: 4808 ft x 0.63840 gal/ft = 3068.43 gals; x 0.0152 bbl/ft = 73.08 bbls

Slotted Liner: 4774' – 4808'

Openhole Capacity 6-1/8" hole x 4-1/2": 34 ft x 0.0168 bbl/ft = 0.57 bbls

Total Capacity: 74 bbls

Oriskany: 4797 – 4808'

TD: 4808'

Fluids Needed

2000 gals 15% HCl acid ** treated with corrosion inhibitor, iron control/sequestering agent, and surfactant. Biocide, clay stabilizer, and surfactant to treat +/- 200 bbls fresh water. Liquid caustic on location in case need to neutralize flowback fluids.

** Prior to acid treatment verify that the 4-1/2" x 7" annuli is full, top off with fresh water treated with biocide, corrosion inhibitor, and clay stabilizer as needed.*

CTCO Procedure

1. MIRU 1.75" CTU.
2. Load CT with treated fresh water (TFW) and pressure test CT and BOPs to 2500 psig.
** maximum pressure on wellhead components 4500 psig*
3. Open well and RIH under static conditions.
4. At 4550' begin jetting with foamed TFW. Jet to TD and cycle up and down across interval 4750' – TD.
5. Begin 15% HCl acid foamed to 50Q and cycle up and down across interval 4650' – TD until 1000 gals acid gone.
6. Chase acid with 40 bbls TFW foamed to 50Q to neutralize wellbore / flowback fluids.
7. Flow well while POOH to 4400'. Flow until returns are relatively dry.
8. CTU on stand-by until after acid treatment to unload wellbore if needed.

Acid Treatment

1. RU to perform acid treatment down casing as follows:

▪ 1000 gals 15% HCl acid	4-6 BPM	Max Treating Press = 2500 psig
▪ 20 bbls bbls TFW	4-6 BPM	Max Treating Press = 2000 psig
▪ 20 bbls bbls TFW	4-6 BPM	Max Treating Press = 1500 psig
▪ 15 bbls bbls TFW	4-6 BPM	Max Treating Press = 1000 psig
▪ 10 bbls TFW	2-4 BPM	Max Treating Press = 1000 psig
▪ SHUT DOWN FOR 30 minutes TO ALLOW ACID TO SOAK		
▪ 5 bbls TFW	2-3 BPM	Max Treating Press = 1000 psig
▪ SHUT DOWN FOR 30 minutes TO ALLOW ACID TO SOAK		
▪ 5 bbls TFW	2-3 BPM	Max Treating Press = 1000 psig
2. Flow well. If well quits flowing, RBIH with CT unloading fluid with N2.
3. RDMO and release CTU / acid equipment.

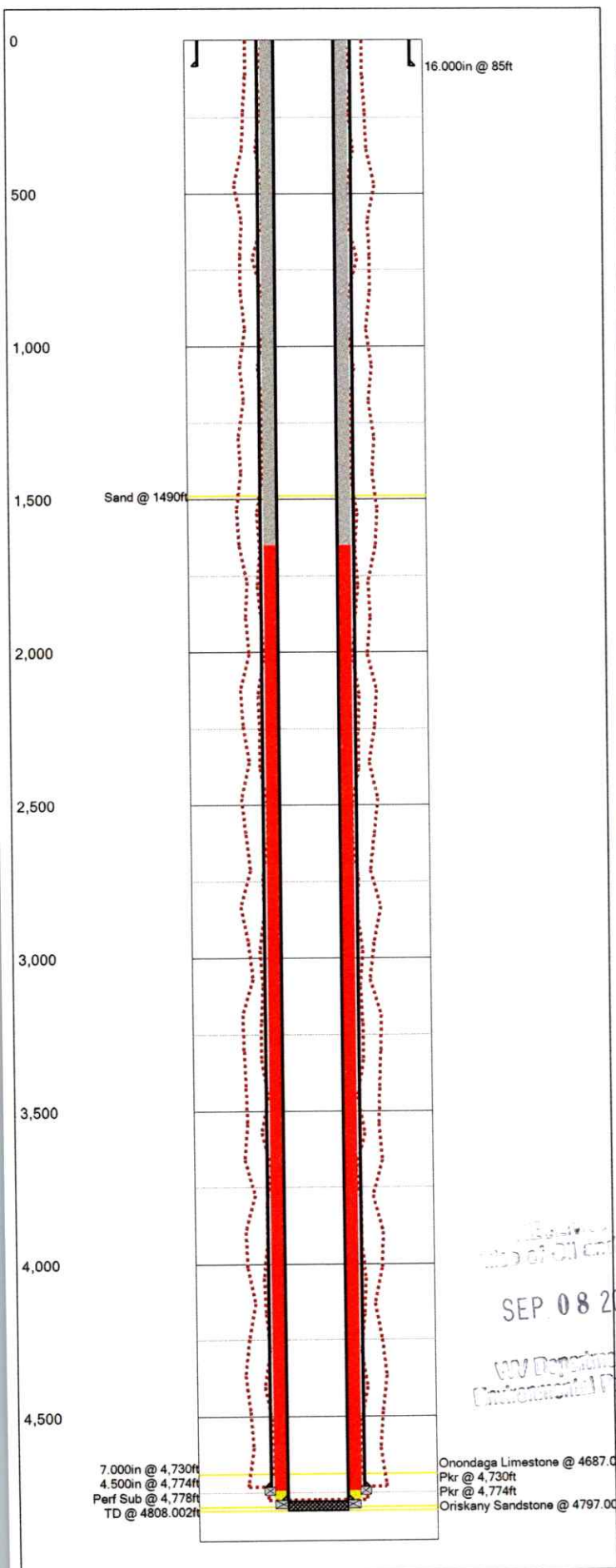
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CTCO of Oil and Gas

SEP 08 2026

WV Department of
Environmental Protection



09/25/2026



Last Updated: 4/26/2024 12:02 PM



Field Name		Lease Name		Well No.		
Ripley		Ripley - 07304		07304		
County		State		API No.		
Jackson		WV		47035004890000		
Version		Version Tag				
0		Current Completion				
G.L. (ft)	K.B. (ft)	Sec.	Township/Block	Range/Survey		
4,808.0		58-95	Ravenswood	031207304		
Operator		Well Status	Latitude	Longitude		
TransCanada		ACTIVE	38.877	-81.6923		
Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From		
PropNum		Spud Date	Comp. Date			
Inez Spears Anderson Et		10/1/1945				
Additional Information						
Parkersburg WV- I-77 S to Ravenswood exit (exit 146) turn left (E) onto CR 56. Follow CR 56 to Sandyville, turn left (S) on CR 21 (old US 21) S to Columbia Gas compressor station. Turn right across private bridge on the N side of compressor station. Follow service road in front of office W to well located directly behind compressor building. Stay on road- watch for above ground pipeline settings and equipment in and around wellsite.						
Other1		Other2	Other3	Other4		
Ripley		0312	031207304			
Prepared By		Updated By	Last Updated			
			4/26/2024 12:02 PM			
Hole Summary						
Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments		
10/20/1945	8.750	0	4,730			
7/10/1954	6.250	0	4,774			
Tubular Summary						
Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
10/1/1945	Drive Pipe	16.000	72.72		0	85
10/20/1945	Surface Pipe	7.000	22.00		0	4,730
7/10/1954	Casing	4.500	12.60	J-55	0	4,774
Casing Cement Summary						
C	Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	11/29/2022	0	4.500	0	4,742	Free Pipe
	7/29/2002	0	4.500	446	1,650	Free Pipe
	7/29/2002	0	4.500	1,650	4,746	Poor Quality
	11/29/2022	0	4.500	4,742	4,770	Partial Quality
Tools/Problems Summary						
Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	
10/20/1945	Pkr	8.000	6.400	4,730	4,734	
7/10/1954	Pkr	6.400	4.000	4,774	4,778	
7/10/1954	Perf Sub	4.500	3.500	4,778	4,808	
Formation Tops Summary						
Formation		Top (TVD ft)	Comments			
Sand		1,490	Comments: fwater @ 205'Comments: fwater @ 465'Comments: fwater @ 595' 1 blr/hrComments: sw@1220'; 1265' HFWComments: HF SW @ 1520'			
Onondaga Limestone		4,687				
Oriskany Sandstone		4,797	Comments: 10.8 MMCF , NAT.			
TD		4,808				

770011

097 110 10 000

16 08 08
40# 13 3/0 28019 Pld.
10# 40# 18031 Pld.
0# 24# 18007 Pld.
7 22# 47944 8mo
Wyo. 2 3/0 40410 4# "
JACKSON
Midget Hm. Hole
Size 7"
Depth 4702' SIM
No core!

Rifle
 Company
 Address
 Location
 Mail No.
 District
 Bureau
 Minnesota
 Commanded
 Completed
 Not shot
 Volume
 Rock Prosaure
 Proah Mater
 Sult Mater

Form 10-100

[illegible]

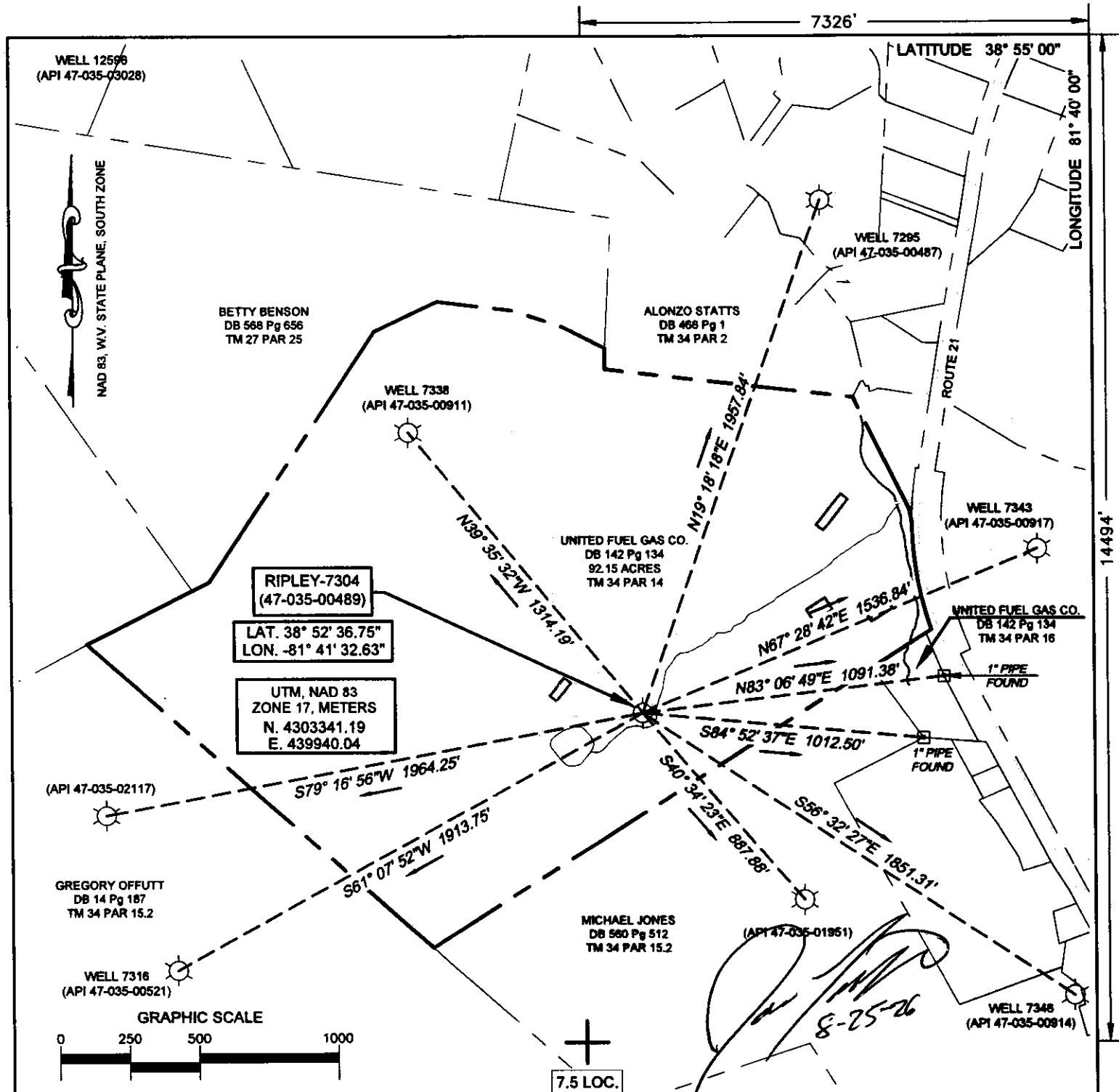
100

1997

1000

09

100



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

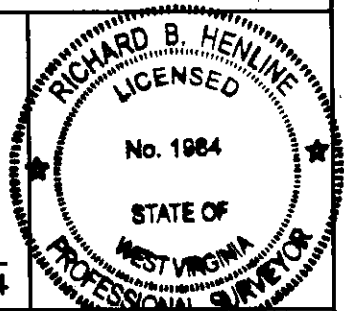
FILE No 2601-3079-001-005
 DRAWING No. WELL-7304
 SCALE 1" = 500'
 MINIMUM DEGREE OF
 ACCURACY 1:200
 PROVEN SOURCE OF
 ELEVATION TRIMBLE R10
GPS UNIT

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 REGU-
 LATIONS ISSUED AND PRESCRIBED BY THE
 DIVISION OF ENVIRONMENTAL PROTECTION.

(SIGNED)

RICHARD B. HENLINE

PS #1984



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



DATE AUGUST 14 2026
 OPERATOR'S WELL No. 7304
 API WELL No.

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐ STATE 47 COUNTY 035 PERMIT 00489
 (IF "GAS") PRODUCTION ☐ STORAGE ☒ DEEP ☒ SHALLOW ☐
 LOCATION: ELEVATION 618.4 WATER SHED MUD RUN OF SANDY CREEK
 DISTRICT RAVENSWOOD COUNTY JACKSON
 QUADRANGLE SANDYVILLE, WV

SURFACE OWNER UNITED FUEL GAS COMPANY ACREAGE 92.15
 OIL & GAS ROYALTY OWNER INEZ SPEARS ANDERSON, ET. AL.
 LEASE ACREAGE 93 LEASE NO. 52239

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 4808
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT MARIA MEDVEDEVA
 ADDRESS PO BOX 1273, CHARLESTON, WV ADDRESS 1700 MACCORKLE AVE., S.E.
25325-1273 CHARLESTON, WV 25314

(PORTLAND)



SANDYVILLE QUADRANGLE
WEST VIRGINIA
TOPOGRAPHIC SERIES (ROCKPORT)

(POND CREEK)



WV Department of
Environmental Protection
SEP 08 2026

(RAVENSWOOD)

(LIVERPOOL)

(COTTAGEVILLE)

(GAY)

Produced by Trimble Terrain Navigator Pro
Topography based on USGS 1:24,000
Maps

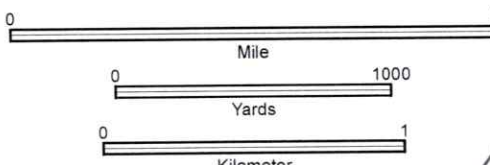
North American 1983 Datum (NAD83)

To place on the predicted North American
1927 move the projection lines 9M N and
13M E

Declination

GN 0.43° W
MN 7.80° W

SCALE 1:24000



CONTOUR INTERVAL 20 FT

38081-H5-TM-024
SANDYVILLE, WV
JAN 1, 1988

09/25/2026

Handwritten signature and date: 8-25-26

WV DEP Reclamation Plan - Overview

Ripley well 7304 (API 47-035-00489)

- 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

Legend

📍 Ripley - 07304

Existing access road

Columbia Gas Transmission

Ripley

Ripley - 07304

Google Earth

2000 ft

N

SEP 08 2026
Office of Offshore Gas
WV DEP

WV DEP Reclamation Plan - Overview

Ripley well 7304 (API 47-035-00489)

- 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

Legend

- CWARY 7304
- Ripley - 07304

Existing access road

Ripley

Ripley - 07304

~0.25 acre

Limit of Proposed Disturbance
on existing well site

Google Earth

500 ft

N

FILED
Office of Oil and Gas
SEP 08 2026

Columbia Gas Transmission, LLC

1700 MacCorkle Ave., SE, Charleston, WV, USA 25314



2026, September *8th*

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 7077 (API 47-039-01236)
Coco B 7229 (API 47-039-01616)
Lanham 7126 (API 47-039-00264)
Ripley 7286 (API 47-035-00512)
Ripley 7301 (API 47-035-00526)
Ripley 7304 (API 47-035-00489)
Ripley 7344 (API 47-035-00918)
Ripley 12413 (API 47-035-02462)

Please email to address below, and return hardcopies of permits to:

Columbia Gas Transmission
1700 MacCorkle Ave SE
Charleston, WV 25314
Attn: Maria Medvedeva

RECEIVED
OFFICE OF OIL AND GAS
SEP 08 2026

If you have questions, feel free to call.

Regards,

A handwritten signature in blue ink, appearing to read "Maria Medvedeva", written over a blue line.

Maria Medvedeva
Senior Wells Engineer
Well Engineering & Technology
Columbia Gas Transmission, LLC
Mob: 304-410-4313
maria_medvedeva@tcenergy.com

WV Department of Environmental Protection



Samples, Casey M <casey.m.samples@wv.gov>

TC Energy 2027 project programs for permitting

3 messages

Maria Medvedeva <maria_medvedeva@tcenergy.com>

Tue, Sep 8, 2026 at 11:58 AM

To: "Samples, Casey M" <casey.m.samples@wv.gov>

Cc: "McLaughlin, Jeffrey W" <jeffrey.w.mclaughlin@wv.gov>, Renae D Whitlock <renae.d.whitlock@wv.gov>

Good afternoon Casey,

The following projects are scheduled for the 2027 well workover program. The permit application fees are listed on the right side of the table and will need to be processed by credit card. Company and card information is listed below. Please give me a call when its convenient for you to process these payments. The permit packets have been dropped off at the front desk of the Charleston WVDEP Office of Oil and Gas just now.

Company – TC Energy (Legacy Columbia Gas Transmission)

Designated Agent – Maria Medvedeva

Billing Address – 1700 MacCorkle Ave SE, Charleston WV 25314

Contact Number – 304 – 410 – 4313

Contact email – maria_medvedeva@tcenergy.com

\$5,600

STORAGE FIELD	WELL NUMBER	CONCISE SCOPE	API Permit #	Amount for payment
Coco A	7077	HRVRT cased hole log, coil cleanout and acid stimulation, if needed frac openhole	47-039-01236-0000	\$800
Coco B	7229	Coil cleanout and acid stimulation	47-039-01616-0000	\$800
Lanham	7126	Plug and abandon OB well	47-079-00264-0000	Not required
Ripley	7286	FWW, coil cleanout and acid stimulation	47-035-00512-0000	\$800
Ripley	7301	Coil cleanout and acid stimulation, HRVRT cased hole log	47-035-00526-0000	\$800
Ripley	7304	Coil cleanout and acid stimulation	47-035-00489-0000	\$800
Ripley	7344	Freshwater wash, coil cleanout and acid stimulation	47-035-00918-0000	\$800
Ripley	12413	HRVRT cased hole log, reperforate, coil cleanout and acid stimulation, if needed refrac	47-035-02462-0000	\$800

Maria (Masha) Medvedeva

Senior Wells Engineer – Well Engineering & Technology

Gas Storage

maria_medvedeva@tcenergy.com

M: +1-304-410-4313



1700 MacCorkle Ave SE
Charleston, WV 25314

TCEnergy.com

TC Energy
maria - medvedeva @tcenergy.com
304-410-4313

09/25/2026

Casey,

Good afternoon, \$150 of each fee will go to the funding below:

3322/9254/6869/0000

The remainder of each fee will go to the funding below:

3323/9280/6869/0000

Thank you,
Rena

[Quoted text hidden]

\$5600
total

\$1050

3322-0000-0313-9254-6869-0000

\$4550

3323-0000-0313-9280-6869-0000

WV Dept of Env. Prot.
601 57th St SE
Charleston, WV 25304
304-926-0499

WV Dept of Env. Prot.
601 57th St SE
Charleston, WV 25304
304-926-0499

SALE

REF#: 00000032
Bank ID: 000000
Batch #: 1549 RRN: 751313650752
09/08/26 14:05:53
AVS: Z CVC: M
Invoice #: WELLS

APPR CODE: 09289S
VISA Manual CP
*****4694 **/**

AMOUNT \$2,800.00

APPROVED

SIGNATURE NOT REQUIRED

I AGREE TO PAY ABOVE TOTAL AMOUNT
IN ACCORDANCE WITH CARD ISSUER'S
AGREEMENT
(MERCHANT AGREEMENT IF CREDIT VOUCHER)
RETAIN THIS COPY FOR STATEMENT
VERIFICATION

Thank You
Please Come Again

MERCHANT COPY

SALE

REF#: 00000032
Bank ID: 000000
Batch #: 1549 RRN: 251039550709
09/08/26 14:05:09
AVS: Z CVC: M
Invoice #: WELL

APPR CODE: 04647S
VISA Manual CP
*****4694 **/**

AMOUNT \$2,800.00

APPROVED

SIGNATURE NOT REQUIRED

I AGREE TO PAY ABOVE TOTAL AMOUNT
IN ACCORDANCE WITH CARD ISSUER'S
AGREEMENT
(MERCHANT AGREEMENT IF CREDIT VOUCHER)
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VERIFICATION

Thank You
Please Come Again

MERCHANT COPY

09/25/2026