



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

Tuesday, August 4, 2026
WELL WORK PERMIT
Vertical / Re-Work

COLUMBIA GAS TRANSMISSION, LLC
1700 MACCORKLE AVENUE SE

CHARLESTON, WV 25314

Re: Permit approval for 7324
47-039-01533-00-00

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: 7324
Farm Name: BANNISTER, THOMAS- ESTATE
U.S. WELL NUMBER: 47-039-01533-00-00
Vertical Re-Work
Date Issued: 08/04/2026

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 within 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 Officer 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.

4703901533W

WW - 2B
(Rev. 8/10)

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 C 7324 3) Elevation: 1006.7

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: 5427

6) Proposed Total Depth: 5496 Feet Formation at Proposed Total Depth: Oriskany

7) Approximate fresh water strata depths: Water reported at 1170' by driller

8) Approximate salt water depths: None reported by driller

9) Approximate coal seam depths: None reported by driller

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

JUN 26 2026

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

WV Department of
Environmental Protection

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Cut/pull section of 4-1/2" and 5-1/2" casings, run new 4-1/2" casing and reconnect with external patch, run cased hole logs, perform coil tubing cleanout and 2000 gal 15% HCl acid stimulation, flowback. Pending results of the CTCO, potentially fracture stimulate well and flowback again.

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	14		42	18	18	
Fresh Water	10.75		32.75	529	529	squeeze 19 sxs
Coal	8.625		28	1809	1809	squeeze 175 sxs
Intermediate	7		23	5317	3867	-
Production	5.5		15.5	5317	3822	-
Production	4.5 *		11.6	1598	1598	cemented to 3950'
Production	4.5		12.6	5393	3795	cemented from 5393'

Packers: Kind: * 20' Homco Internal Patch installed at 1495 - 1515'

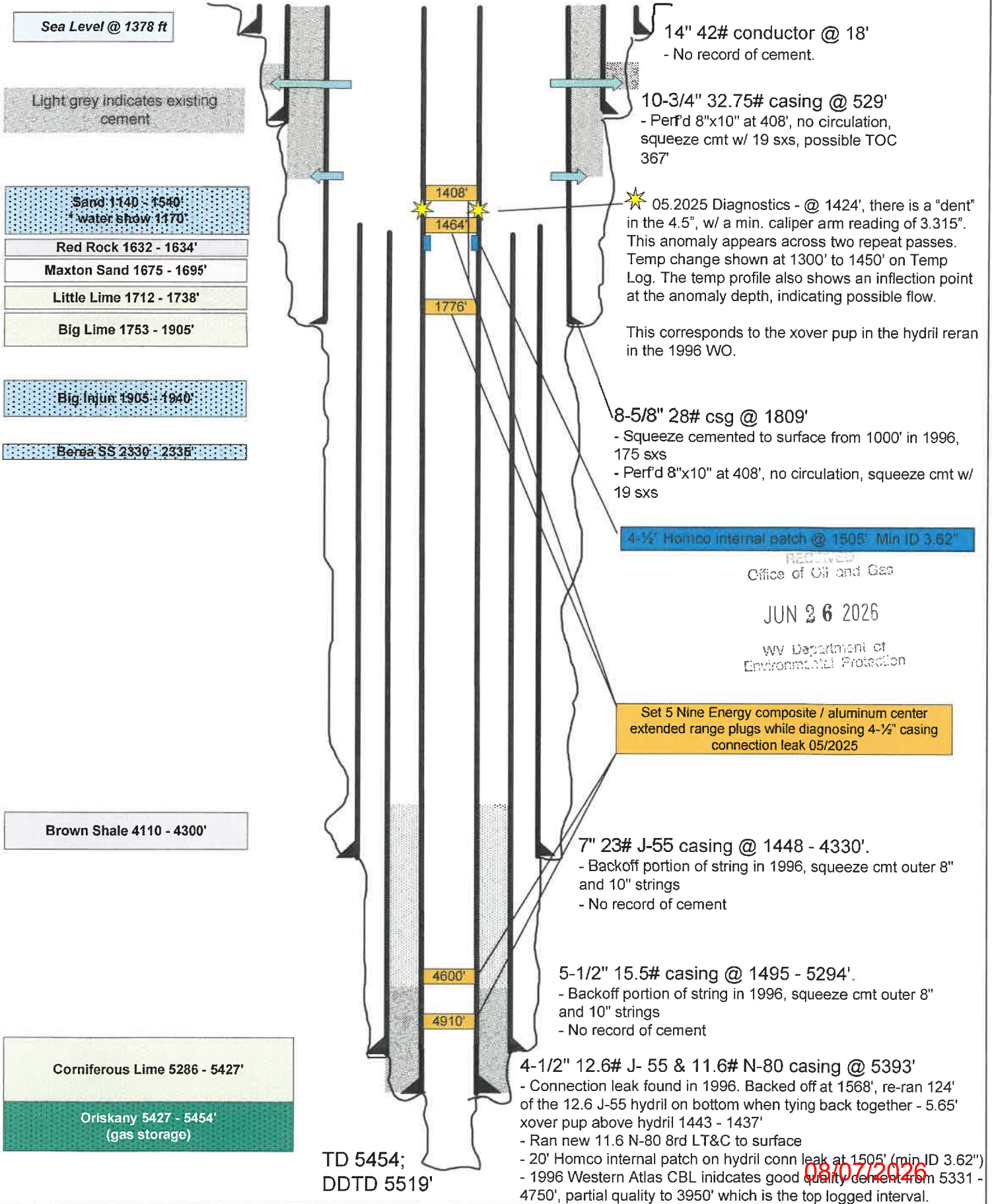
Sizes: _____

Depths Set _____

08/07/2026

~ not to scale ~

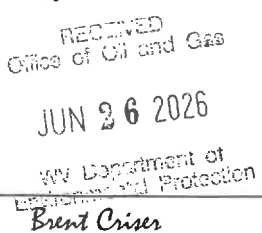
COCO C 7324
Current Condition
 (as of 05.21.25)



WELL JOB PLAN						STS Well Engineering & Technology		PAGE 1		DATE JOB PREPARED:		6/2/2026	
Objective: Casing Repair and Restore Deliverability								LAST PROFILE UPDATE:					
TITLE: Repair csg leak, obtain HRVRT / CBL logs, CTCO, pending results of CTCO possible frac								WORK TYPE: BF					
FIELD: Coco C				WELL ID: 7324				LEASE #: 4849					
STATE: WV				SHL (Lat/ Long) : 38.448387		-81.437138		API: 47-039-01533					
DIST/TWP: Elk				BHL (Lat/Long) : 38.448387		-81.437138		CNTY: Kanawha					
EXISTING TUBULAR CONFIGURATION		OD (inches)	WEIGHT (PPF)	GRADE	THREAD	DEPTH (ft)		WELLLINE #: X52CW7324		FORMATION: refer to MISC INFORMATION section			
						TOP	BOTTOM	PAY:		ELEVATIONS			
Conductor		14	42.0			0	18	TD: 5496		TMG:			
Surface		10 3/4	32.75			0	529	PBTD:		KB-RF:			
Intermediate		8 5/8	28.0	drift dia. 7.892'		0	1809	KB-GL:		GL:			
Intermediate		7	23.0			1450	4330	CSG		DEPTH		WELLBORE SCHEMATIC	
Production		5 1/2	15.5			1495	5317	Refer to "Wellbore Diagram" tab					
Production		4 1/2	11.6 / 12.6	N-80 / J-55	8rd / hydril	0	5393 **						
Homco Internal Patch		3.958*				1495	1515						
* 20' patch ran to straddle hydril conn leak at 1505 ft (per BAL log 9/25/96). Min ID 3.62" per MFC 05.2025 ** 1996 drilled deeper a 3-3/4" hole to 5496'													
Perforations		Openhole completed, cross-linked gel/sand stimulated Oriskany											
Wellhead		API 3k, 4-1/2" flow x 8-5/8" support, 4-1/2" 8 rd wellhead connection											
		Refer to "Wellbore Diagram" tab											
CEMENT INFO								Calc TOC (ft)					
10 3/4	Perf'd 8" x 10" at 408', wouldn't circ but squeezed 19 sx in						367						
8 5/8	Squeeze cmt'd from 1000 ft w/ 175 sx to surface in 1996. Perf's at 1350-1351' were not successful.						0						
7	Uncemented						-						
4 1/2	Cemented to 5393'						3950+						
MISC INFORMATION													
REFER TO WELL SUMMARY RPT, WELLBORE DIAGRAM, ELOG, ETC. (see spreadsheet tabs below)													
Kill Fluid Calculation * Note that kill fluid calculation tabs are hidden Maximum calculated bottom-hole pressure (for reference only): 2080 psig * input Maximum storage field surface pressure (MAOP): 1800 psig * input Well TD: 5496 ft TVD * input Top of storage zone: 5427 ft TVD * input Calculated maximum BH pressure at top of zone: 2071 psig * output Kill Fluid (TOZ) Kill fluid density at top of zone @: 200 psi OB 8.05 ppg * output Kill Fluid (TOZ) Proposed depth of BP: 5427 ft TVD * input Calculated maximum BH pressure at depth of BP: 2071 psig * output Kill Fluid (BP) Kill fluid density at depth of BP @: 200 psi OB 8.05 ppg * output Kill Fluid (BP) Required minimum kill fluid density: 8.1 ppg * greater of the two													
Current AOF: 19,330 MCF/D Top historical AOF: 67,606 MCF/D Last MVRT: 09/06/1996 Western Atlas log indicates a potentially Class 3 casing condition at ~4600'. SBT: 08/05/1996 Western Atlas CBL indicates good quality cement from 5331 - 4750', partial quality to 3950' which is the top logged interval. Diagnostic Logs: 2025 diagnostics identified a dent via a caliper log in the 4-1/2" casing at 1424', temperature anomilies between 1300 to 1450'.													
PROPOSED YEAR: 2026				ERCB PERMIT REQD: YES _____ NO __X__				(Internal) PDS Required: YES _____ NO _____					
				DT. APPLIED: ISSUED:									
PREPARED BY: Maria Medvedeva				REVIEWED BY: Brent Criser				APPROVED: Brent Criser					
PREP DATE: 6/2/2026													

08/07/2026

4703901533W

WELL JOB PLAN		STS Well Engineering & Technology		PAGE 2	DATE JOB PREPARED: 6/1/2026
Objective: Casing Repair and Restore Deliverability				LAST PROFILE UPDATE:	
TITLE: Repair csg leak, obtain HRVRT / CBL logs, CTCO, pending results of CTCO possible frac				WORK TYPE: BF	
FIELD: Coco C	WELL: 7324				
STAT: WV	SHL (Lat/Long):	38.448387 -81.437138	API: 47-039-01533		
TWP: Elk	BHL (Lat/Long):	38.448387 -81.437138	CNTY: Kanawha		
PROCEDURE					
NOTE: FWW in 2021 didn't restore deliverability and the well has dropped off since the 1996 WO. In 1996 stimulated Oriskany with cross-linked gel with 15,000 # 20/40 sand. Observed increase of ~10k mcf/day AOF. In 1998 performed a WHX, where we presume the well was killed with a freshwater fluid. The well cleaned up another ~25k mcf/day AOF at that time. -- 2025 diagnostics identified a dent via a caliper log in the 4-1/2" casing at 1424', temperature anomalies between 1300 to 1450'. This depth corresponds to a X-over pup in the hydril casing reran during the 1996 workover. Note the well also has an internal patch at 1495 - 1515'. TA'd the well with 5 Nine Energy composite / aluminum core plugs at 4910', 4600', 1776', 1464', 1408'.					
1 Obtain State well work permit, EM&CP, pipeline crossing evaluation, call before you dig, etc. Prepare site specific SPCC. 2 Notify landowner. 3 Issue the Work Permit(s). 4 Notify Reservoir Engineering & Geosciences (REG) of intent to take well out of service. 5 Notify environmental inspector prior to beginning work. If required, notify State/Federal regulatory agencies prior to beginning work. 6 Disconnect well line. 7 Prepare access road and well site. Install ECD's per EM&CP. 8 Service all wellhead valves. 9 Document and report to WE&T the initial casing and annular pressures. 10 Load / top the well and annuli with kill fluid. Document volumes. 11 MIRU service rig. 12 NU 7-1/16" Cameron 5K BOPE (blind/shear + pipe + annular) on top of master valve. Need kill and choke outlets below blind/shear. 13 Function and pressure test BOPE to low (250 psig) and high (2500 psig). 14 Drill out Nine Energy composite plugs at 1408' and 1464', cleaning out to the top of the 3rd composite plug at 1776'. Keep well full, verify its static. NOTE: 4-1/2" Homco internal patch 1495 - 1515', with a minimum ID of 3.62" @ 1505' per 05.13.25 GoWell MFC caliper log. 15 Remove wellhead, unset slips on 4-1/2" casing and weld on pulling nipple. 16 Strip / NU 9" or 13" annular BOP on top of the casing head - there is no way of testing. 17 Wireline free point 4-1/2" casing to verify its free down to 1750'. 18 Mechanically cut (use carbide cutters) and pull 4-1/2" casing below 1615' but no deeper than 1745' as correlated to Nine Energy Temp/Noise and GoWells MFC logs 05/12/25. Need good free pipe at cut to be able to slide lead-seal external patch over stub (connections at ~1607' and 1728'). 19 Circulate clean with KWF. Pull 4-1/2" casing. 20 Blind backoff 5-1/2" casing such that the 5-1/2" casing stub is at minimum 5' below the 4-1/2" casing stub. The 4-1/2" Innovex external casing patch requires a minimum 3-4' interval to be set. NOTE: have a hydraulic backoff tool available as backup for the 5-1/2" backoff. 21 TIH with mill (designed to dress top of 4-1/2" csg stub). Wash down to top of csg stub, dress top of stub, circulate clean, and TOOH. 22 Run new 4-1/2" csg, circulate packer inhibitor fluid behind casing, and reconnect with lead-seal external patch. Installation to be supervised by manufacturer representative. Torque connections tight to optimum torque as per manufacturer. NOTE 1: FULLY coat the pin end with Bestoflife 2000 pipe dope 23 Pressure test casing to 2160 psig surface (~1.2 x MAOP) for 30 minutes. Maximum allowable pressure drop is 10% or 215 psi. Chart pressure test. Consult with WE&T engineer as needed. 24 Slack off on casing. Strip off BOPE. 25 Pull recommended tension on lead-seal external patch and drop slips in top of csg spool. 26 Re-pressure test casing. 27 Cut down 4-1/2" casing, install primary seals, install DSPA, MV and pressure test seals to 2160 psig 28 MIRU 1.75" CTU. 29 Drillout remaining 3 Nine Energy composite / aluminum core plugs at 1776', 4600' and 4910'. 30 MIRU Baker Atlas Logging. Run gauge ring, HRVRT casing and RAL CBL logs. RD loggers. Request 1-day turnaround on HRVRT analysis. Condition of 4-1/2" casing will determine next steps. Consult with WE&T engineer before proceeding. 31 Obtain stabilized pre-cleanout rate through 3/4" choke. 32 RI with jetting tool. At 5300' begin flowing well and jet to TD with foamed TFW. At TD begin foamed 15% HCl with mutual solvent (must be compatible with HCl acid to avoid emulsions or damaging by-product) and jet across storage interval (5393 - 5496') until 1000 gals are gone. Pull up into casing and flow well until relatively dry. RBIH to 5500' and spot 1000 gals 15% HCl acid with mutual solvent. Pull up to 3500' and load wellbore above acid with TFW. Allow to soak for 60 minutes. Displace acid into formation with 1000 gals TFW. Unload wellbore with nitrogen to re-establish gas flow. 33 Flow well to dry and POOH. 34 RDMO CTU. 35 Perform final 45-min flowback test thru 3/4" choke. Record flow test in the FLOWTEST and GAS LOSS DATA SHEET.					
PREPARED BY:	Maria Medvedeva	REVIEWED BY:	Brent Criser	APPROVED:	 RECEIVED Office of Oil and Gas JUN 26 2026 WV Department of Environmental Protection Brent Criser
PREP DATE:	6/2/2026				

Any W. Miller
6-8-26

08/07/2026

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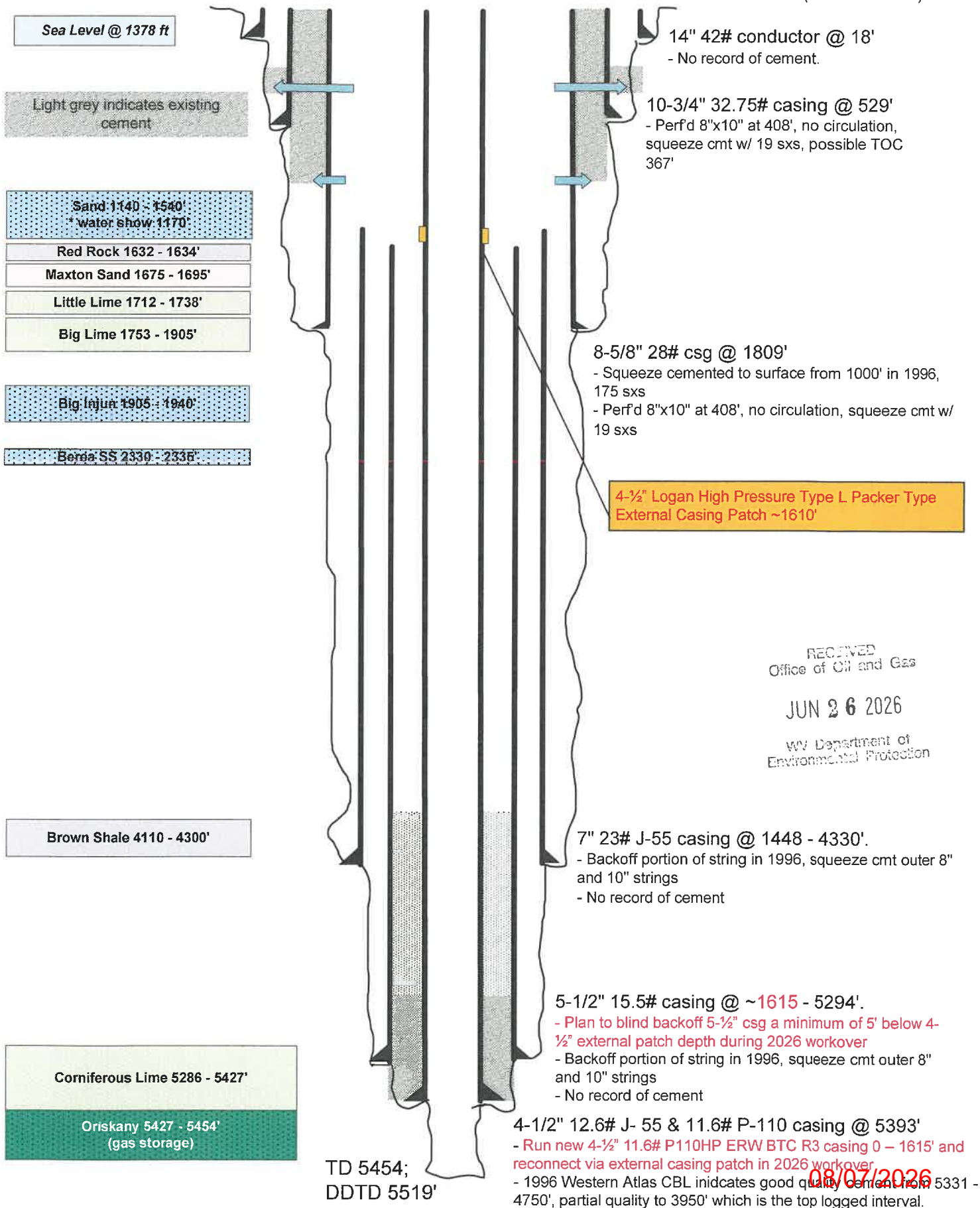
WELL JOB PLAN		STS Well Engineering & Technology		PAGE 3	DATE JOB PREPARED: 6/2/2026
Objective: Casing Repair and Restore Deliverability				LAST PROFILE UPDATE:	
TITLE: Repair csg leak, obtain HRVRT / CBL logs, CTCO, pending results of CTCO possible frac				WORK TYPE: BF	
FIELD: Coco C	WELL: 7324				
STAT: WV	SHL (Lat/Long): 38.448387 -81.437138		API: 47-039-01533		
DIST/TWP: Elk	BHL (Lat/Long): 38.448387 -81.437138		CNTY: Kanawha		
PROCEDURE (continued)					
<i>If CTCO flowtest results dictate and well condition allows -</i> 36 Fracture stimulate based on REG recommendations and confirmed 4-1/2" casing condition from new HRVRT and CBL. <i>Hydraulic isolation between bottom of 8-5/8" csg and 4-1/2" packer is unknown based on existing Bond Attenuation Log, and likely doesn't exist. 5-1/2" and 7" casing strings have been partially pulled and were uncemented per historic records when originally run.</i> 37 Perform 45-min flowback test thru 3/4" choke. Record flow test in the FLOWTEST and GAS LOSS DATA SHEET. 38 Reconnect well line. 39 Notify WET Project Support that well is back in-service. 40 Reclaim R&L. 41 Commission well by closing out the Work Permit(s). Complete the As-Built well record process. 42 Notify REG that well is ready for storage service. All freshwater based fluids to be treated with biocide and clay stabilizer. All acids to be treated with corrosion inhibitor and iron control.					
RECEIVED Office of Oil and Gas JUN 26 2026 WV Department of Environmental Protection					
PREPARED BY: Maria Medvedeva		REVIEWED BY: Brent Criser		APPROVED: Brent Criser	
PREP DATE: 6/2/2026					

August 6-8-26

08/07/2026

~ not to scale ~

COCO C 7324 Post Workover (as of 06/01/26)



COLUMBIA GAS TRANSMISSION CORPORATION
NOTICE OF STORAGE WELL STATUS CHANGE

4703901533W

FORWARD ORIGINAL ONLY TO STORAGE DEPARTMENT.

DIVISION	St. Albans	STORAGE FIELD	Coco "C"	COMPANY WELL NUMBER	7324
FARM NAME	Bannister	TOWNSHIP-DISTRICT	Elk	COUNTY	Kanawha
STATE	WV	LEASE-DEED NO.		ACRES	
DATE COMP.					
LAST ACTIVE WELL ON FARM		(THIS BLOCK FOR STORAGE DEPT. USE ONLY)			
☐ YES ☐ NO		☐ SURRENDER LEASE ☐ RENEW LEASE ☐ OTHER			

WELL STATUS PRIOR TO THIS REPORT	☐ PRODUCTION	☒ STORAGE	Remarks Pulled 1541' 4 1/2" csg. Pulled 1495' 5 1/2" csg. Pulled 1450' 7" csg. Squeezed 8 5/8" csg from 1000' to surf. w/ 175 sks neat cement. Squeezed 10 3/4" csg from 480' w/ 19 sks neat cement. Tied back 4 1/2" csg. Installed new API 3000 wellhead Equip Drilled 3 3/4" hole from 5457' to 5496' Installed csg Patch in 4 1/2" @ 1495' to 1515' Stimulated Oriskany w/ X-Link Gel w/ 15,000# 20/40 sand.
	☐ DRILLING	☒ ACTIVE	
	☐ S.I. COMPLETION	☐ ABANDONED	
WELL STATUS CHANGE OR WORK PERFORMED	☐ COMPLETED	☐ Gas ☐ Dry	RECEIVED Office of Oil and Gas JUN 26 2026
	☐ INITIAL TURN ON		
	☐ REDRILLED FOR STORAGE	☐ Retained ☐ Abandoned	
	☒ RECONDITIONED	☐ Retained ☐ Abandoned	
	☐ TRANSFERRED TO	☐ CNR ☐ Storage	
	☐ PURCHASED FOR STORAGE		
	☒ DRILLED DEEPER		
	☐ PLUGGED AND ABANDONED		
☐ SOLD	☐ OTHER (SEE REMARKS)		

DRILLED TO	5496' feet	Oriskany sand	PLUGGED BACK	☐ NO ☐ YES
WELL TREATMENT	If Yes, to depth of _____ feet			
☐ No ☒ Yes	Cross Link Gel w/ 15,000# 20/40 sand			

COMPLETION DATA (If applicable)	OPEN FLOW TEST	NA BEFORE TREATMENT (If applicable)	TYPE OF GAUGE			
		☐ Orifice Well Tester ☐ Pitot Tube ☐ Other (Specify) _____				
		GAUGE READING _____ inches	☐ Mercury ☐ Water	or _____ psig through _____ inch opening after blowing _____ hours		
		FLOW _____ cu ft/day	DATE _____	ROCK PRESSURE _____ psig in _____ hours		
COMPLETION DATA (If applicable)	FINAL READING	NA	TYPE OF GAUGE			
		☐ Orifice Well Tester ☐ Pitot Tube ☐ Other (Specify) _____				
		GAUGE READING _____ inches	☐ Mercury ☐ Water	or _____ psig through _____ inch opening after blowing _____ hours		
		FLOW _____ cu ft/day	DATE _____	ROCK PRESSURE _____ psig in _____ hours		

AUTHORIZATION FOR WORK PERFORMED	Classification	51-107-319-W08521-4141	For Storage Dept. Use Only		
	Permit Number	47-039-1533	SECTION	NOTED BY	DATE
WORK PERFORMED BY	MACHINE NUMBER OR CONTRACTORS NAME	Waco Oil & Gas	STORAGE ENGINEER	J.V. McCallister	12-18-96
			GEOLOGY		
			MONITORING		
			OFFICE & BUDGETS		
			DIRECTOR DRILLING AND MAINTENANCE		

Compiled By John V. McCallister Date 12-18-96

Reviewed By _____ Date _____
MANAGER-DRILLING & FIELD LIAISON

08/07/2026

4703901533W

FORM U 97-P C 8 D

United Fuel Gas Company
COMPANY

Superintendent

1324

SERIAL WELL NO. 6573

LEASE NO. 4849

MAP SQUARE 72-65

CORD OF WELL NO. 6573 on the		CASING AND TUBING				TEST BEFORE SHOT
S. P. Bare # 18	farm of 540 Acres	SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	/10 of Water in.....inch
in Elk	District	14#	42#	39'8"	18'1"	36'10 of Merc. in.....7" 22#inch
Kanawha	County	10-3/4"	32.75#	547'4"	529'4"	Volume.....9,549,000.....Cu. ft.
State of: West Virginia		8-5/8"	28#	1962'0"	1809'0"	TEST AFTER SHOT
Field: Clendenin		7" O.D.	23#	15250'3"	4350'1"	/10 of Water in.....inch
Rig Commenced	194	5-1/2"	15.5#	5539'6"	5294'7"	/10 of Merc. in.....inch
Rig Completed	194	2"	4.6#	5543'5"	5432'3"	Volume.....Cu. ft.
Drilling Commenced	6/19/50 194					Hours After Shot
Drilling Completed	194					Rock Pressure 980# 15-Hr.
Drilling to cost	per foot					Date Shot.....
Contractor is: Liming & Summers						Size of Torpedo.....
Address: Clendenin W. Va.		SHUT IN				Oil Flowed.....bbls. 1st 24 hrs.
		Date.....1/8/52				Oil Pumped.....bbls. 1st 24 hrs.
Driller's Name T. C. Cook		7 in. Tubing or Casing				
D. Phillips		Size of Packer.....				Well abandoned and
		Kind of Packer.....				Plugged.....194
		1st Perf. Set.....from.....				
Elevation: 1005.95		2nd Perf. Set.....from.....				

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Red Rock	0	15		
Sand	15	105		
Slate	105	155		
Sand	155	265		
Red Rock	265	325		
Slate	325	340		
Sand	340	490		
Slate	490	500		
Sand	500	575		
Slate & Shells	575	655		
Sand	655	755		
Slate & Shells	755	835		
d	835	880		
Slate & Shells	880	950		
Sand	950	990		
Slate & Shells	990	1140		
Salt Sand	1140	1540		Water at 1170'

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Office of Oil and Gas

JUN 26 2026

WV Department of
Environmental Protection

08/07/2026

ORM U 97-1-P C B D

LEASE NO. 4849

MAP SQUARE 72-65

[illegible]

JUN 26 2026

WV Department of
Environmental Protection

08/07/2026



"Pipeline"

Select County: (039) Kanawha ☐ (Check All)

Enter Permit #: 01533

☒ Location ☒ Production ☒ Plugging

☒ Owner/Completion ☒ Stratigraphy ☒ Sample

☒ Pay/Show/Water ☒ Logs ☒ Btm Hole Loc

4703901533W

[Table Descriptions](#)
[County Code Translations](#)
[Permit-Numbering Series](#)
[Usage Notes](#)
[Contact Information](#)
[Disclaimer](#)
[WVGES Main](#)
["Pipeline-Plus" New](#)

WV Geological & Economic Survey:

Well: County = 39 Permit = 01533 [Link to all digital records for well](#)

Report Time: Tuesday, August 4, 2026 10:19:03 AM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4703901533	Kanawha	1533	Elk	Blue Creek	Clendenin	38.448568	-81.43735	461836.9	4255677.1

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_ES
4703901533	1/8/1952	Original Loc	Completed	S B Dare	18	6573				United Fuel Gas Co.			
4703901533	10/4/1996	Worked Over	Completed	Thomas Bannister Hr		7324			S P Bare	Columbia Gas Transmission Corp.			
4703901533	-/-	Worked Over	Completed	JDM Realm LLC		7324		1004849-000	Kanawha Valley Bank Trustee	Columbia Gas Transmission, LLC			

Completion Information:

API	CMP_DT	SPUD_DT	ELEV DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	KOD	G_BEI
4703901533	1/8/1952	6/19/1950	1006 Ground Level	Blue Ck(Fig Rk)	Oriskany		Development Well	Development Well	Gas w/ Oil Show	unknown	unknown	5454		5454		9545
4703901533	10/4/1996	8/1/1996	1005 Ground Level	Blue Ck(Fig Rk)	Oriskany	Oriskany	Miscellaneous Well	Unsuccessful	Storage	Rotary	Acid+Frac	5496		0		0
4703901533	-/-	-/-	1007 Ground Level	Blue Ck(Fig Rk)	Oriskany	Oriskany	Miscellaneous Well	Unsuccessful	Storage		Acid+Frac	5496		0		0

Pay/Show/Water Information:

API	CMP_DT	ACTIVITY	PRODUCT	SECTION	DEPTH_TOP	FM_TOP	DEPTH_BOT	FM_BOT	G_BEI	G_AFT	O_BEI	O_AFT	WATER_QNTY
4703901533	10/4/1996	Water	Fresh Water	Vertical			200						0
4703901533	10/4/1996	Water	Salt Water	Vertical			1000						0
4703901533	1/8/1952	Show	Oil & Gas	Vertical			4125	Lower Huron	0	0			
4703901533	-/-	Horizon	Storage	Vertical	5427	Oriskany	5454	Oriskany					
4703901533	10/4/1996	Horizon	Storage	Vertical	5427	Oriskany	5454	Oriskany	0	0			
4703901533	1/8/1952	Pay	Gas	Vertical	5436	Oriskany	5454	Oriskany	9549	0			

Production Gas Information: (Volumes in Mcf) * 2025 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_GAS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4703901533	Allegheny & Western Energy Corp.	1995	0	0	0	0	0	0	0	0	0	0	0	0	0

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil * 2025 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_OIL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4703901533	Allegheny & Western Energy Corp.	1995	72	0	0	0	0	72	0	0	0	0	0	0	0

There is no Production NGL data for this well ** some operators may have reported NGL under Oil

There is no Production Water data for this well

Stratigraphy Information:

API	SUFFIX	FM	FM_QUALITY	DEPTH_TOP	DEPTH_QUALITY	THICKNESS	THICKNESS_QUALITY	ELEV	DATUM
4703901533	Original Loc	Salt Sands (undiff)	Well Record	1140	Reasonable	400	Reasonable	1006	Ground Level
4703901533	Original Loc	Maxton	Well Record	1675	Reasonable	20	Reasonable	1006	Ground Level
4703901533	Original Loc	Little Lime	Well Record	1712	Reasonable	26	Reasonable	1006	Ground Level
4703901533	Original Loc	Pencil Cave	Well Record	1748	Reasonable	5	Reasonable	1006	Ground Level
4703901533	Original Loc	Big Lime	Well Record	1753	Reasonable	152	Reasonable	1006	Ground Level
4703901533	Original Loc	Greenbrier Group	Well Record	1753	Reasonable	152	Reasonable	1006	Ground Level
4703901533	Original Loc	Big Injun (Price&eq)	Well Record	1905	Reasonable	35	Reasonable	1006	Ground Level
4703901533	Original Loc	Price Fm & equivs	Well Record	1905	Reasonable	432	Reasonable	1006	Ground Level
4703901533	Original Loc	Squaw	Well Record	2010	Reasonable	20	Reasonable	1006	Ground Level
4703901533	Original Loc	Weir	Well Record	2060	Reasonable	140	Reasonable	1006	Ground Level
4703901533	Original Loc	Sunbury Sh	Well Record	2325	Reasonable	5	Reasonable	1006	Ground Level
4703901533	Original Loc	Berea Ss	Well Record	2330	Reasonable	7	Reasonable	1006	Ground Level
4703901533	Original Loc	UDev undfBer/LoHURN	Well Record	2337	Reasonable	0	Qstrble Pick	1006	Ground Level
4703901533	Original Loc	Big White Slate	Well Record	4300	Reasonable	550	Reasonable	1006	Ground Level
4703901533	Original Loc	Rhinestreet Sh	Well Record	4850	Reasonable	100	Reasonable	1006	Ground Level
4703901533	Original Loc	Onondaga Ls	Well Record	5286	Reasonable	143	Reasonable	1006	Ground Level
4703901533	Original Loc	Oriskany	Well Record	5427	Reasonable	0	Reasonable	1006	Ground Level

Wireline (E-Log) Information:

* There is no Scanned/Raster Log data for this well

* There is no Digitized/LAS Log data for this well

* There is no Scanned or Digital Logs available for download

There is no Plugging data for this well

Sample Information:

API	CUT1_TOP	CUT1_BOT	CUT2_TOP	CUT2_BOT	CORE1_TOP	CORE1_BOT	FM1_TOP	FM1_BOT	CORE2_TOP	CORE2_BOT	FM2_TOP	FM2_BOT	SMPL	THN_SEC1	SCAN1	SLAB1	PERM1	THN_SEC
4703901533	5317	5436			5439	5464	Oriskany	Oriskany										

WSC Comment: Core 2 received in 2022

WSC Core 1 Comment: whole core, 9 boxes

08/07/2026

4703901533W

WW-2A
(Rev. 6-14)

1.) Date: 06/04/26
 2.) Operator's Well Number Coco C 7324
 State 47- County 039 Permit 01533
 3.) API Well No.: 47- 039 - 01533

**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 JDM Realm LLC
 Address 17107 Reid Hill Dr.
Culpepper, VA 22701
 (b) Name _____
 Address _____
 (c) Name _____
 Address _____

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 _____

6) Inspector Terry Urban
 Address PO Box 1207
Clendenin, WV 25045
 Telephone 304-549-5915

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)

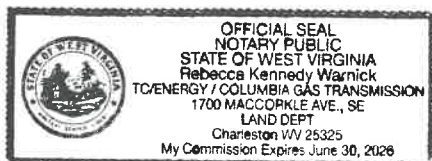
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties by:

_____ 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 4th

day of June, 2026

Notary Public

My Commission Expires 6/30/26

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 08/07/2026

4703901533W

Columbia Gas Transmission, LLC

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



2026, June 4th

JDM Realm LLC
17107 Reid Hill Dr.
Culpepper, VA 22701

RECEIVED
Office of Oil and Gas
JUN 26 2026
WV Department of
Environmental Protection

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 C 7324 (API 47-039-01533).

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,

Maria Medvedeva
Senior Wells Engineer
Well Engineering & Technology
Columbia Gas Transmission, LLC

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com™.

Culpepper, VA 22701

Certified Mail Fee \$5.30

Extra Services & Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy)	\$0.00
☐ Return Receipt (electronic)	\$0.00
☐ Certified Mail Restricted Delivery	\$0.00
☐ Adult Signature Required	\$0.00
☐ Adult Signature Restricted Delivery	\$0.00

Postage \$12.90

Total Postage and Fees \$22.60

Sent To JDM Realm LLC
Street and Apt. No., or PO Box No. 17107 Reid Hill Dr.
City, State, ZIP+4® Culpepper VA 22701

PS Form 3800, April 2015 PSN 7530-02-000-9041 See Reverse for Instructions

7022 2410 0002 6396 3270

KANAWHA CITY STATION
0728 05
JUN 04 2026
Postman Here
CHARLESTON WV 25304

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

JDM Realm LLC
17107 Reid Hill Dr.
Culpepper, VA 22701



9590 9402 7630 2122 5684 15

2. Article Number (Transfer from service label)

7022 2410 0002 6396 3270

COMPLETE THIS SECTION ON DELIVERY**A. Signature**

X ☐ Agent ☐ Addressee

B. Received by (Printed Name)

Joseph Meadows

C. Date of Delivery

6/20/26

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature ☐ Priority Mail Express®
☐ Adult Signature Restricted Delivery ☐ Registered Mail™
☐ Certified Mail® ☐ Registered Mail Restrict Delivery
☐ Certified Mail Restricted Delivery ☐ Signature Confirmation™
☐ Collect on Delivery ☐ Signature Confirmation Restricted Delivery
☐ Collect on Delivery Restricted Delivery

all Restricted Delivery

SURFACE OWNER WAIVER

County Kanawha

Operator

Columbia Gas Transmission LLC

Operator well number

Coco C 7324

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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Office of Oil and Gas
JUN 26 2026
WV Department of
Environmental Protection

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	_____ Company Name	_____ By	_____ Date
_____ Print Name		_____ Signature	_____ Date	

08/07/2026

COAL OPERATOR, OWNER, OR LESSEE WAIVER

*** coal not operated**County KanawhaOperator Columbia Gas Transmission LLCOperator's Well Number Coco C 7324

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.

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

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WV Department of
Environmental Protection

08/07/2026

WW-2A1
(Rev. 1/11)

Operator's Well Number Coco C 7324

**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
Kanawha Valley Bank, Trustee	United Fuel Gas Company	Storage Lease - 1004849-000	138 / 362

**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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WV Department of
Environmental Protection

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

08/07/2026

WW-2B1
(5-12)Well No. Coco C 7324West 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 contactor 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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JUN 26 2026
WV Department of
Environmental Protection

08/07/2026

4703901533W

WW-9
(5/16)API Number 47 - 039 _ 01533
Operator's Well No. Coco C 7324STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLANOperator Name Columbia Gas Transmission, LLC OP Code 307032Watershed (HUC 10) Mile Creek a Tributary of Blue Creek Quadrangle Blue Creek, WVDo 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/AWill a synthetic liner be used in the pit? Yes ☐ No ☒ If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

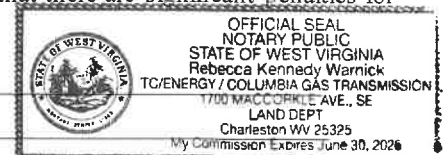
- ☐ Land Application (if selected provide a completed form WW-9-GPP)
- ☐ Underground Injection (UIC Permit Number 34-167-23862)
- ☐ Reuse (at API Number _____)
- ☒ Off Site Disposal (Supply form WW-9 for disposal location)
- ☐ Other (Explain Mud Master 64054; Reserve Environmental Services (WMGR 123SW008)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

Will closed loop system be used? If so, describe: yes - steel flow line to tanksDrilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Fresh water-If oil based, what type? Synthetic, petroleum, etc. N/AAdditives to be used in drilling medium? NaCl, biocide, soda ash, polymer, starch, CaCO3, KCl, HClDrill 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 Maria MedvedevaCompany Official (Typed Name) Maria MedvedevaCompany Official Title Senior Wells Engineer Storage Technical ServicesSubscribed and sworn before me this 4th day of June, 2026Ben Hill Notary PublicMy commission expires 6/4/26

08/07/2026

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: [Signature]

Comments: _____

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JUN 26 2026

WV Department of
Environmental Protection

Title: Inspector Delia GossDate: 6-8-26

Field Reviewed?

(☒) Yes(☐) No

08/07/2026

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
GROUNDWATER PROTECTION PLANOperator Name: Columbia Gas Transmission, LLCWatershed (HUC 10): Mile Creek a Tributary of Blue CreekQuad: Blue Creek, WVFarm Name: U6573

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.

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

Mile Creek is at a distance of 0.38 miles S.

The Trail Kitchen WV9908037 is the closest Well Head Protection Area at a distance of 10.1 miles SE from discharge area.

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

N/A

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JUN 26 2026
WV Department of
Environmental Protection

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

08/07/2026

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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Environmental Protection

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: 06/04/26

08/07/2026

WV DEP Reclamation Plan - Overview

Coco C well 7324 (API 47-039-01533)

- 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

47-039-01533

Existing access road

Coco C - 07324

Walnut Creek

Legend

-  Coco C - 07324
-  CWA CC 7324

08/07/2026

Google Earth

Image Landsat / Copernicus

3000 ft



WV DEP Reclamation Plan - Site Detail

Coco C well 7324 (API 47-039-01533)

- 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

4703901533

Legend

-  Coco C - 07324
-  CWACC 7324

08/07/2026

Limit of Proposed Disturbance
on existing well site

~0.75 acre

Coco C - 07324

Existing access road

Google Earth

300 ft



081° 27' 22.6724" W
038° 28' 12.7829" N

(KETTLE)

081° 25' 04.2044" W

038° 28' 12.7829" N

(BIG CHIMNEY)

(CLEDENIN)

036° 25' 35.0538" N
081° 27' 22.6724" W

Declination

(QUICK)
SCALE 1:24000

Printed: Tue Jun 18, 2024

081° 25' 04.2044" W
038° 25' 35.0538" N

(CHARLESTON
EAST)

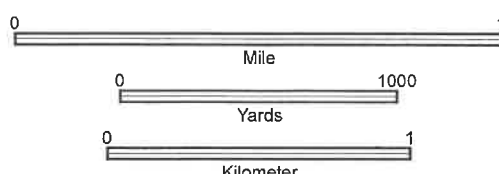
(MAMMOTH)

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

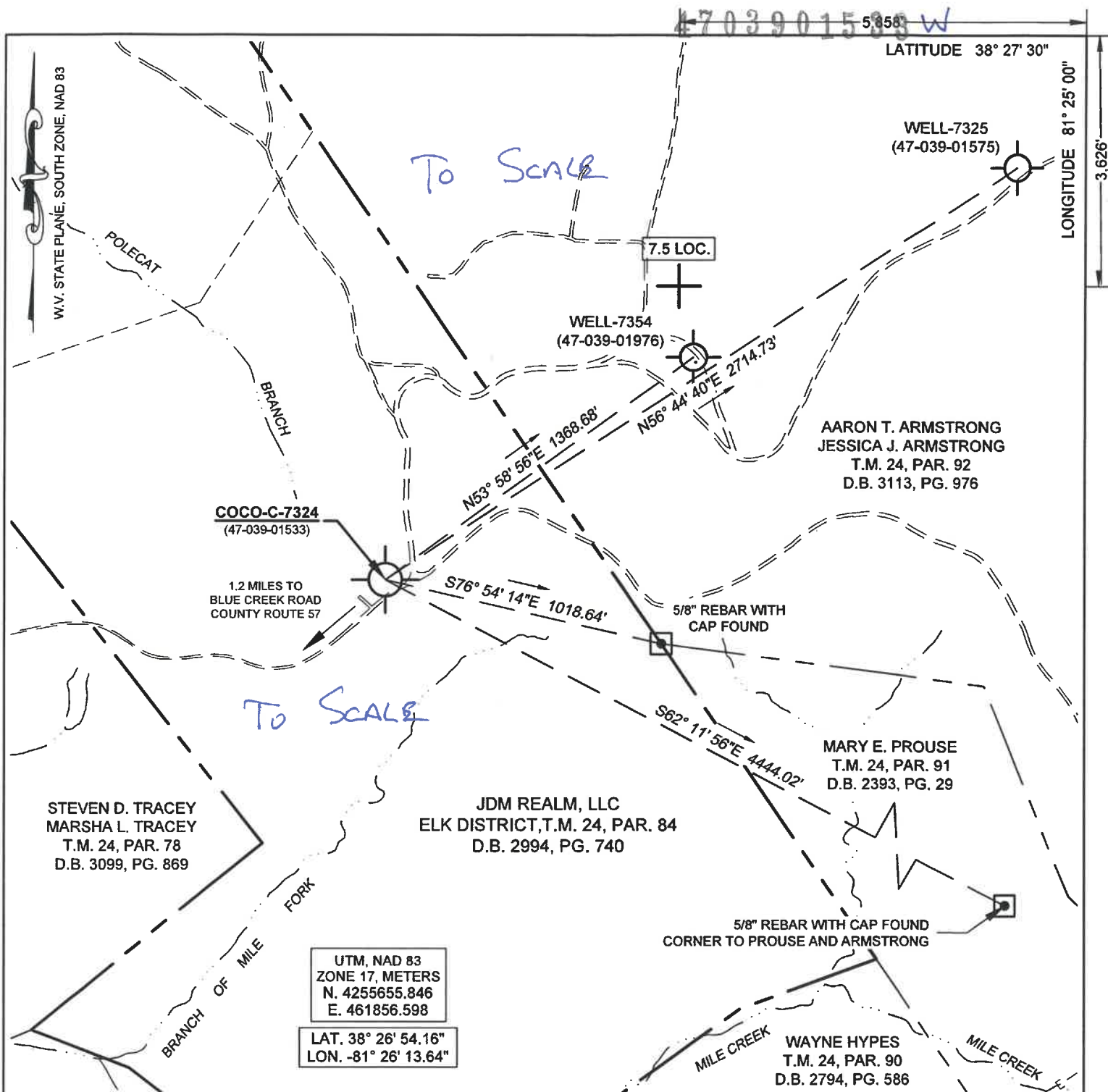
GN 0.27° W
MN 7.90° W



CONTOUR INTERVAL 20 FT

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

08/07/2026



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

FILE No. **2401-2345-009**

DRAWING No. **2401-2345-009**

SCALE **1 INCH = 500 FEET**

MINIMUM DEGREE OF
ACCURACY **1:200**

PROVEN SOURCE OF
ELEVATION **TRIMBLE R12**
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)

RICHARD B. HENLINE PS #1984



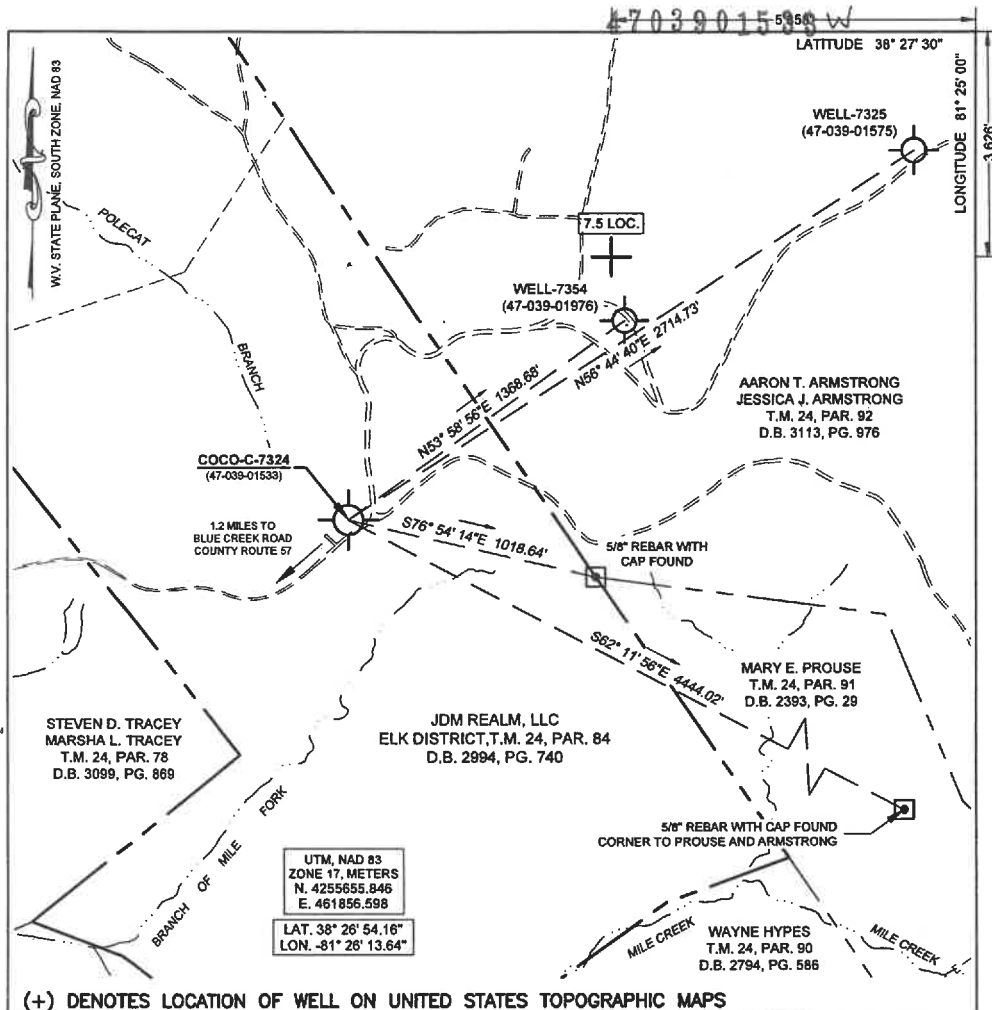
STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
NITRO, WV



DATE **JUNE 1** 20**26**
OPERATOR'S WELL No. **7324**
API WELL No. **08/07/2026**

47 **039** — **01533**

4703901533 W

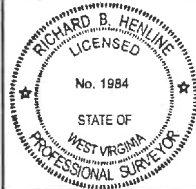


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 REGULATIONS ISSUED AND PRESCRIBED BY THE
 DIVISION OF ENVIRONMENTAL PROTECTION.

(SIGNED) *Richard B. Henline*
RICHARD B. HENLINE PS #1984



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



DATE **JUNE 1** 20**26**
 OPERATOR'S WELL No. **7324**
 API WELL No.

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐ STATE **47** COUNTY **039** PERMIT **01533**

(IF "GAS") PRODUCTION ☐ STORAGE ☒ DEEP ☒ SHALLOW ☐

LOCATION: ELEVATION **1006.7'** WATER SHED **MILE CREEK A TRIBUTARY OF BLUE CREEK**

DISTRICT **ELK** COUNTY **KANAWHA**

QUADRANGLE **BLUE CREEK, WV**

SURFACE OWNER **JDM REALM, LLC** ACREAGE **328.77**

O&G ROYALTY OWNER **KANAWHA VALLEY BANK, TRUSTEE**

LEASE ACREAGE **343 ACRES** LEASE NO. **1004849-000**

PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE ☐
 STIMULATE ☒ PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) **OBTAIN WELL LOGS, CTCO, FRAC**
 PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG ☐

TARGET FORMATION **ORISKANY** ESTIMATED DEPTH **5496**

WELL OPERATOR **COLUMBIA GAS TRANSMISSION, LLC** DESIGNATED AGENT **MARIA MEDVEDEVA**

ADDRESS **PO BOX 1273, CHARLESTON, WV 25325-1273** ADDRESS **1700 MACCORKLE AVE, SE CHARLESTON, WV 25314**

08/07/2026

4703901533w

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Samples, Casey M <casey.m.samples@wv.gov>
To: Renae D Whitlock <renae.d.whitlock@wv.gov>

Fri, Jun 26, 2026 at 10:33 AM

Can I get coding for this?
[Quoted text hidden]

Casey Samples

Accounts Receivable

West Virginia Department of Environmental Protection

Phone: 304-926-0499 x41950

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

SALE

REF#: 00000006

Bank ID: 000000

Batch #: 1493 RRN: 177858639986

06/26/26 1106:26

AVS: Z CVC: M

Invoice #: 7324

APPR CODE: 04737S

VISA Manual CP
*****4694 **/**



Whitlock, Renae D <renae.d.whitlock@wv.gov>
To: "Samples, Casey M" <casey.m.samples@wv.gov>

AMOUNT \$800.00

3:38 AM

Please see coding below, \$150 will go to the first line and the remainder to the :

\$150	3322	0313	0313-9254	6869	0000
\$650	3323	0313	0313-9280	6869	0000

[Quoted text hidden]

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

08/07/2026

Columbia Gas Transmission, LLC

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

4703901533W



2026, June 26th

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

Enclosed is a well work permit application for the following Columbia Gas Transmission existing storage well:

Coco C 7324 (API 47-039-01533)

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

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

If you have questions, feel free to call.

Regards,

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

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

RECEIVED
Office of Oil and Gas

JUN 26 2026

WV Department of
Environmental Protection



4703901533W

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

Well Workover Permit Application - well Coco C 7324, API 47-039-01533

3 messages

Maria Medvedeva <maria_medvedeva@tcenergy.com>

Fri, Jun 26, 2026 at 9:45 AM

To: Renae D Whitlock <renae.d.whitlock@wv.gov>, "McLaughlin, Jeffrey W" <jeffrey.w.mclaughlin@wv.gov>, Gregory L Null <gregory.l.null@wv.gov>, "Samples, Casey M" <casey.m.samples@wv.gov>

Good morning,

I have dropped off a well workover permit application for the subject well project at the WV DEP Office of Oil and Gas in Charleston this morning. We are hoping to perform this wellwork in mid-August / September, or as per receiving all of the approvals to proceed.

There is a payment fee of \$800 for this type of application. I can submit the payment over the phone by credit card. Payee information is as per below for processing –

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

Thank you,

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

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08/07/2026