



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, April 22, 2022
WELL WORK PLUGGING PERMIT
Vertical Plugging

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

Re: Permit approval for 7398
47-077-00030-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.


James A. Martin
Chief

Operator's Well Number: 7398
Farm Name: BURROWS, S. E.
U.S. WELL NUMBER: 47-077-00030-00-00
Vertical Plugging
Date Issued: 4/22/2022

Promoting a healthy environment.

04/22/2022

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

4707700030P

1) Date _____, 2022
2) Operator's
Well No. Terra Alta 7398
3) API Well No. 47-077 - 00030

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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

5) Location: Elevation 2066.4 ft Watershed Saltlick Creek
District Portland County Preston Quadrangle Terra Alta

6) Well Operator Columbia Gas Transmission LLC 7) Designated Agent Maria Medvedeva
Address 1700 MacCorkle SE Address 1700 MacCorkle SE
Charleston, WV 25314 Charleston, WV 25314

8) Oil and Gas Inspector to be notified Name Gayne Knitowski
Address PO Box 108
Gormanias, WV 26720
9) Plugging Contractor Name Contractor Services Inc
Address 929 Charleston Road
Spencer, WV 25276

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

Refer to enclosed:

- 1) Well job plan.
- 2) Prior to P&A wellbore schematic.
- 3) Proposed P&A wellbore schematic.

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

Work order approved by inspector Gayne Knitowski Date 4/22/2022
04/22/2022

WELL JOB PLAN		STS Well Engineering & Technology		PAGE 3	DATE JOB PREPARED: 1/19/2022
Objective: Plug and Abandon				LAST PROFILE UPDATE:	
TITLE: Plug and Abandon			WORK TYPE: MOD		
FIELD: Terra Alta	WELL: 7398 (OB)				
STAT: WV	SHL (Lat/Long): 39.41639	-79.57694	API: 47-077-00030-0000		
TWP: Portland	BHL (Lat/Long): 39.41639	-79.57694	CNTY: Preston		

PROCEDURE (page 1)

NOTE: All cement used will be Class A, slurry weight 15.6ppg, slurry yield 1.18 cuft/sk. All spacers will be 6% Bentonite gel.

- 1 Obtain State well work permit, EM&CP, pipeline crossing evaluation, call before you dig, etc. Prepare site specific SPCC.
 - 2 Notify landowner.
 - 3 Obtain General Work Permit and Wellsite Review & Turnover Form from Operations.
 - 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 Prepare access road and well site. Install ECD's per EM&CP.
 - 7 Document and report to WE&T the initial casing and annular pressures.
 - 8 Blow down all annuli and replace fittings as necessary. Leave annuli open to atmosphere for monitoring.
 - 9 Run caliper (note from 3.12.2008 - 7" casing is butt welded just below pin looking up- 6.25" ring will not pass thru weld).
 - 10 Load / top 7x8 and 8x10 annuli with kill fluid. Top off all remaining annuli with FW. Document volumes.
 - 11 Kill well with 11.3 ppg viscosified fluid
 - 12 Dig around base of wellhead to uncover casing tops and remove cement if present.
 - 13 MIRU service rig.
 - 14 NU 7-1/16" Cameron BOPE (blind/shear + pipe + annular). Will need kill/choke outlets below blind/shear rams.
 - 15 Function and pressure test BOPE to low (250 psig) and high (2500 psig).
 - 16 Obtain CBL inside 7" casing from TD to surface - keep hole full. Send digital copy of CBL to WE&T engineer and consult on next Steps.
 - 17 RIH with 2-3/8" work string w/ cut-lip shoe, wash to TD (PSTD ~ 5508'), and install balanced cement plug from TD to depth of cement top behind 7" csg.
 - 18 PU above cement top, reverse circulate to clean tubulars, pull 10 joints, close pipe rams, and WOC.
 - 19 WOC minimum 8 hours. RIH and tag cement. If cement top is deeper than 4800' then spot a second balanced cement plug.
 - 20 Install 7" CIDBP above cement plug.
 - 21 Top off 7" with kill fluid and perform 500 psig pressure test to verify integrity of BP.
 - 22 Top off 7x8, 8x10, and 10x13 annuli with fluid again.
 - 23 Plumb 7x8, 8x10, 10x13 annuli to flowback tank with adjustable choke.
 - 24 Perforate 7" csg above CIBP and attempt to circulate to surface or establish injection.
- * Consult with WE&T engineer on results**
- 25A If circulation to surface established, consult with WE&T engineer for procedure:
- > Circulate kill weight fluid until good kill density fluid is returned.
 - > RIH with sliding-sleeve style cement retainer on work string.
 - > Set retainer above perms.
 - > Establish circulation.
 - > Squeeze cement behind 7" casing with pre-determined cement volume that occupies no more annular volume than that required to place top of cement at 1500'.
 - > Disengage from retainer, reverse circulate to clean tubulars, and TOH.
 - > WOC 24 hours.
 - > Obtain CBL.
- 25B If no circulation to surface, but injection established, consult with WE&T engineer for procedure:
- > RIH with sliding-sleeve style cement retainer on work string
 - > Set retainer above perms.
 - > Establish injection.
 - > Disengage from retainer and spot cement at bottom of work string.
 - > Squeeze cement behind 7" casing with pre-determined cement volume that occupies no more than annular volume that required to place top of cement at 1500'.
 - > Disengage from retainer, reverse circulate to clean tubulars, and TOH.
 - > WOC 24 hours.
 - > Obtain CBL.
- 25C If circulation/injection not established; Perforate (per WE&T engineer) and repeat process above.
- * Note that during steps above cement plugs must be installed across all perf zones, casing shoes, and O/G/W zones.
If needed install cement plugs across all perf intervals and spot cement plug to 1500'.

PREPARED BY: Maria Medvedeva	REVIEWED BY: James Amos	APPROVED: Brent Criser
PREP DATE: 1/19/2022		JDK 4/12/2022

04/22/2022

WELL JOB PLAN		STS Well Engineering & Technology		PAGE 4	DATE JOB PREPARED: 1/19/2022
Objective: Plug and Abandon				LAST PROFILE UPDATE:	
TITLE: Plug and Abandon			WORK TYPE: MOD		
FIELD: Terra Alta	WELL: 7398 (OB)				
STAT: WW	SHL (Lat/Long): 39.41839	-79.57694	API: 47-077-00030-0000		
DIST/TWP: Portland	BHL (Lat/Long): 39.41839	-79.57694	CNTY: Preston		
PROCEDURE (page 2)					
<div style="border: 1px solid black; height: 30px; width: 100%;"></div>					
<p>26 Release all annular pressure and top off.</p> <p>27 ND BOPE.</p> <p>28 Weld pulling nipple on 7" csg and pull seals and slips.</p> <p>29 NU 11" BOPE (blind ram + pipe ram + annular) on top of 8-5/8" csg. Need kill/choke outlets below blind/shear.</p> <p>30 Function and attempt to pressure test BOPE to low (250 psig) and high (2500 psig). Report results to WE&T engineer.</p> <p>31 Wireline freepoint and cut / pull all 7" casing that is free.</p> <p>32 Obtain CBL inside 8-5/8" csg. Send digital copy to WE&T engineer to evaluate and confirm next Steps.</p> <p>33 TIH with work string and install balanced cement plugs from top of last cement plug to depth of cement top behind the 8-5/8" csg.</p> <p>34 POOH to above cement, reverse circulate to clean tubulars, close BOP, and WOC (minimum 6 hrs).</p> <p>35 RIH and tag cement. If cement top is less than 100' above top of 7" csg stub then install second cement plug.</p> <p>36 TOOH and ND BOPE and remainder of wellhead.</p> <p>37 Weld pulling nipple on 8-5/8" csg and dress top of 10-3/4" csg to accommodate BOPE.</p> <p>38 NU 11" spool (with kill/choke outlets) and 11" annular BOP on top of 10-3/4" csg.</p> <p>39 Function and attempt to pressure test BOPE to low (250 psig) and high (500 psig). Report results to WE&T engineer.</p> <p>40 Wireline freepoint and cut/pull all 8-5/8" casing that is free.</p> <p>41 TIH with work string and install balanced cement plug from top of last cement plug to 400'.</p> <p>42 POOH to above cement, reverse circulate to clean tubulars, and WOC (minimum 4 hrs).</p> <p>43 RIH and tag cement. If cement top is less than 100' above top of 8-5/8" csg stub then install second cement plug.</p> <p>44 TOOH and ND BOP.</p> <p>45 Obtain CBL inside 10-3/4" csg. Send digital copy to WE&T engineer to evaluate and confirm next Steps.</p> <p>46 TIH with work string and install balanced cement plugs from top of last cement plug to depth of cement top behind the 10-3/4" csg.</p> <p>47 POOH to above cement, reverse circulate to clean tubulars, close BOP, and WOC (minimum 3 hrs).</p> <p>48 Weld pulling nipple on 10-3/4" csg.</p> <p>49 Wireline freepoint and cut/pull all 10-3/4" casing that is free.</p> <p>50 TIH with work string and install balanced cement plugs from top of last cement plug to surface.</p> <p>51 Grout all annuli as deep as possible.</p> <p>52 RDMO service rig.</p> <p>53 Erect monument per state regulations. Reclaim location and lease road.</p> <p>54 P&A complete.</p> <p>55 Notify REG / WE&T / Project controller that project is in-service.</p>					
PREPARED BY:	Maria Medvedeva	REVIEWED BY:	James Amos	APPROVED:	Brent Criser
PREP DATE:	1/19/2022			MDK 4/20/2022	

~ not to scale ~

TERRA ALTA 7398

Prior to P&A

(as of 01/12/2022)

Sea Level @ 2118 ft

Water show @ 245' of 1/2 bailer/hr
Water show @ 300' of 2 bailers/hr
Water show @ 340 - 364' hole full of H2O

13-3/8" 48# csg @ 30'
(no record of cement)

Calculated cement top
@ 314'

10-3/4" 32.75# csg @ 368'
(25 bags cement)

Gelled to surface

Calculated cement top
@ 1012'

8-5/8" 24# csg @ 1326'
(55 bags of cement, gelled to surface)

Brown Shale 3700 - 4257'

Tully Lime 4377 - 4392'

Calculated cement top
@ 4435'

Onodaga Lime 4889 - 4915'

Chert 4915 - 5062'

Oriskany 5062 - 5160'

Shale 5160 - 5165'

Chert 5165 - 5271'

Oriskany 5271 - 5481'

Helderberg 5481 - 5788'

7" 20# csg @ 4914'
(60 bags of cement)

Gas shows @ 5063 - 5066', 5152 - 5155',
5274 - 5276', 5288 - 5290', 5378 - 5381',
5405 - 5417' and 5424 - 5429'.

PBTD 5508'
Filled with cement
and stone

RECEIVED
Office of Oil and Gas

FEB 9 2022

WV Department of
Environmental Protection

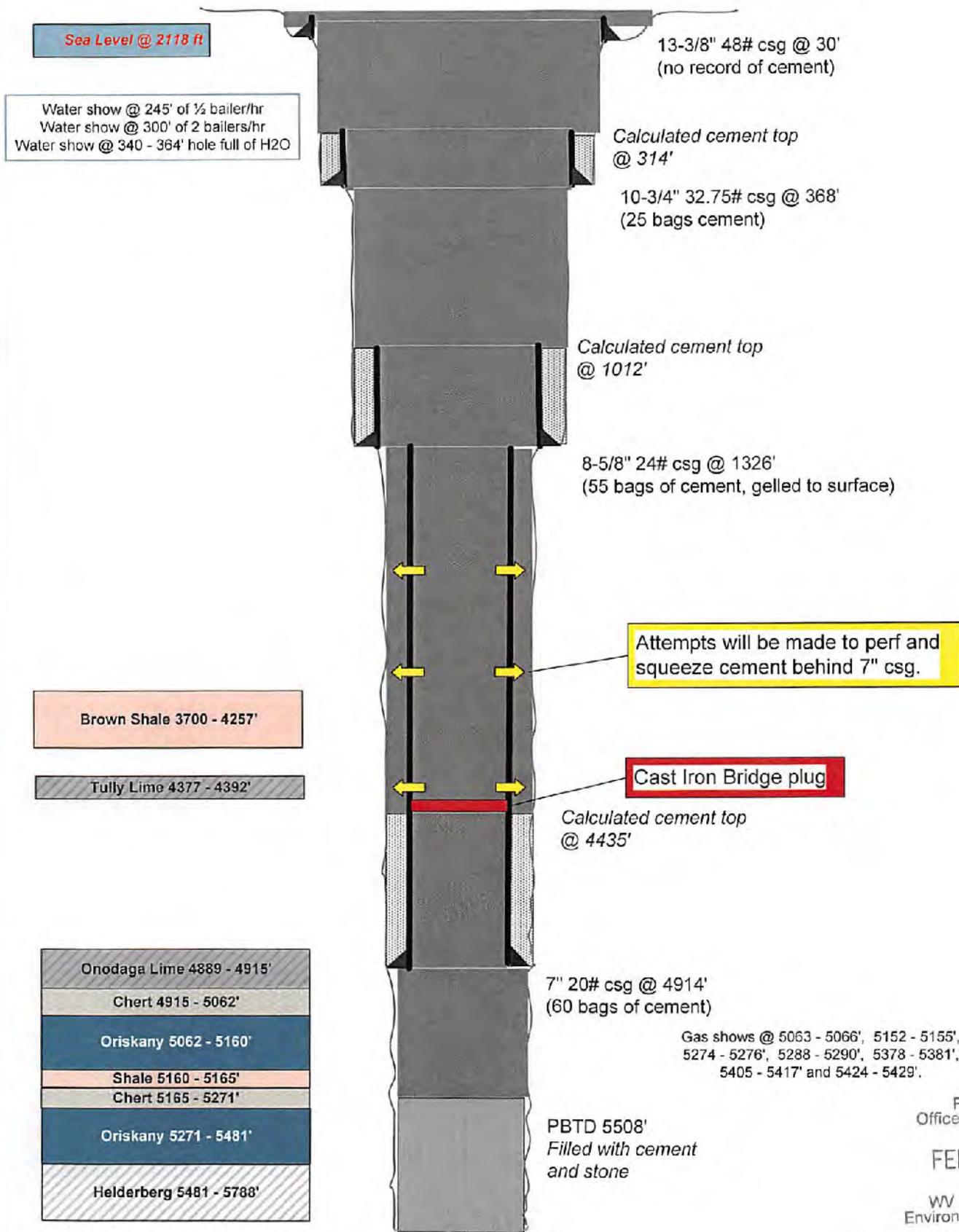
TD 5788'

04/22/2022

~ not to scale ~

TERRA ALTA 7398

Proposed P&A
(as of 01/13/2022)



Sea Level @ 2118 ft

Water show @ 245' of 1/2 bailer/hr
Water show @ 300' of 2 bailers/hr
Water show @ 340 - 364' hole full of H2O

13-3/8" 48# csg @ 30'
(no record of cement)

Calculated cement top @ 314'

10-3/4" 32.75# csg @ 368'
(25 bags cement)

Calculated cement top @ 1012'

8-5/8" 24# csg @ 1326'
(55 bags of cement, gelled to surface)

Attempts will be made to perf and squeeze cement behind 7" csg.

Brown Shale 3700 - 4257'

Tully Lime 4377 - 4392'

Cast Iron Bridge plug

Calculated cement top @ 4435'

Onodaga Lime 4889 - 4915'
Chert 4915 - 5062'
Oriskany 5062 - 5160'
Shale 5160 - 5165'
Chert 5165 - 5271'
Oriskany 5271 - 5481'
Helderberg 5481 - 5788'

7" 20# csg @ 4914'
(60 bags of cement)

Gas shows @ 5063 - 5066', 5152 - 5155',
5274 - 5276', 5288 - 5290', 5378 - 5381',
5405 - 5417' and 5424 - 5429'.

PBTD 5508'
Filled with cement and stone

TD 5788'

RECEIVED
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WV Department of
Environmental Protection

04/22/2022



4707700030P

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. PRES 30

Oil-Gas Well (WVMS)

Company Hope Natural Gas Company
 Address 445 West Main St. Clarksburg, W. Va.
 Farm Sister Leonie Burrows Acres 1/8
 Location (waters) _____
 Well No. 9694 Elev. 2061
 District Portland County Preston
 The surface of tract is owned in fee by _____
 Address _____
 Mineral rights are owned by _____
 Address _____
 Drilling commenced November 20, 1951
 Drilling completed March 15, 1952
 Strata frac treatment 591 to 598
 Date shot shot From 5273 To 5274
 With 8Qnts
 Open Flow 1/10ths Water in _____ Inch
 _____ 1/10ths Merc. in _____ Inch
 Volume 374,000 cu. ft. _____ Cu. Ft.
 Rock Pressure 1570# 8 days lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water 245 300 355 feet _____ feet
 Salt water none recorded feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
18			Kind of Packer
17	30	30	
13	368	368	Size of
8 1/4	1326	1326	
6 1/4	1919	1919	Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

5" cemented and gelled to surface
 CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
 7" set in 60 sacks cement
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface			0	38			
Slate shell			38	240			
Sand light			240	250	1/2 bailer water per hr.		
Dark slate			250	265			
Slate shell			265	340	2 bailers water per hr at 300		
Sand			340	364	hole full water at 355		
Slate shell			364	1253			
BENSON SAND			1253	1275			
Slate shell gray			1275	1760			
Dark slate			1760	1810			
Gray slate			1810	2460			
Slate shell			2460	3700			
Brown shale			3700	4257			
Black shale			4257	4377			
TULLY LIME			4377	4392			
Black shale			4392	4834			
Light lime			4834	4847			
Dark shale			4847	4889			
Brown break			4889				
ONGDAGE			4889	4915			
Chert			4915	5062	High gas		
ORISKANY			5062	5160	gas	5053 and 5152	
Shale dark			5160	5165			
Chert			5165	5271	gas 5271-38-		
ORISKANY			5271	5481	gas 5288-3378-5405-10-13-24		
HILDEBERG			5481	5788			
Total depth				5788			
Filled back to				5505			



(Over)

04/22/2022

Terra Alta

ASC-7338

Well No. 11-9694 on Suburban Business Farm Acres 44 [±]
 Locality Portland County Prout State
 Drilled 11/1/52 19 Completed 19 3/15/52
 Drilled by Anna Building Co. 5th St. Address Elmer 2061

CASING AND TUBING RECORD

Outside	1 7/8"	1 3/4"	1 3/8"	1"	3/4"	5/8"	1/2"	3/8"	1/4"
Used in Well	30'	365	1326	499					5391'
Waste									5391'

PACKER RECORD

SHOOTING RECORD Stratofrac - 4/1/52

Shot	Depth Set	Type Powder	Date	Type Explosive	Amount	DEPTH Top	Bottom	Volume Before Dr. Ft.	Volume After Dr. Ft.
1st	328	360 gr.			80 lbs	0715		248,500	363,000
2nd	419	"							

VOLUME AND PRESSURE See Log for Stratofrac Record

Depth	Surface Pressure	Depth	Barometer	Pressure	Sand	PRESSURE IN WELLS					24 Hour R.P.	Max. R.P.	Notes	
						1	2	3	4	5				
3' 47" Lucas Open Casing				Set 5391'										

TOTAL INITIAL OPEN FLOW CUBIC FEET PER 24 HOURS

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Sand	240	250		Leak @ 245'
Sand	340	364		" " 300'
Brannon	1253	1275		
Brannon Shale	3200	4257		Gamma Ray 2/1/52
Tully Lime	4377	4392		Directional
Brannon Break	4819		(Fracture)	10" x 1/2" in 25 Page Log
Brannon	4819	4915		2" - 55
Shale	4915	5062		7" - 60
Brannon	5062	5160		Leak @ 5063-66
Shale	5160	5165		5152-55
Shale	5165	5271		
Brannon	5271	5441		Leak @ 5374-76, 5388-90, 5378-81, 5405-17
Halden	5441	5784		# 5424-29
T.O.D.		5784		

Date	Pressure	Flow	Remarks
7/62	7 days Oils	1485 #	
7/54	-	-	Flow
7/62	20 test		
7/62	Fractured 435 psi/min		Fract
2/25/50	179 #		
11/19/54	32 #		
5/17/54	20 #		
12/1/54	12 #		

Open Flows
 4/18/52 12 1/2" H₂O 1' FM 26,017 Oils.
 1/20/52 53 1/2" " " 24,176 "
 4/25/52 14 1/2" Hg " 11,000 "
 3/15/52 57 1/2" " " 210,000 "
 2/20/52 7 1/2" " " 87,000 "
 3/28/52 4 1/2" " " 177,000 "
 4/18/52 20 1/2" " " 248,000 "
 5/16/52 24 1/2" " 1 1/4" 347,000
 2500 # / 24 hrs
 20 minutes pick up taken
 Capacity - Fractured

RECEIVED
 Office of Oil and Gas
 FEB 9 2022
 WV Department of
 Environmental Protection

Examined above information and measurements and found to be correct by _____
 Examined and Approved by ASC-7338
 Contractor _____ Field Superintendent _____

NOTE - The above blank must be filled out carefully by the contractor, with a complete and accurate record of the well, and accompany, when presented for payment of the bill for drilling. All formations and known sands must be given by their proper names, with zone (or measurements), and under the head of "Remarks" must be recorded in what sand and at what depth Oil, Gas or water was found; the quantity of same, the quality of the sand, and thickness of pay.

4707700030P

WW-4A
Revised 6-07

1) Date: 01.13.2022
2) Operator's Well Number
Terra Alta 7398

3) API Well No.: 47 - 077 - 00030

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

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Ralph and Joann Lewis</u>	Name <u>Not operated</u>
Address <u>7582 Salllick Rd</u>	Address _____
<u>Terra Alta, WV 26764</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Gayne Knitowski</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 108</u>	Name _____
<u>Gormanla, WV 26720</u>	Address _____
Telephone <u>304.546.8171</u>	_____

RECEIVED
Office of Oil and Gas
FEB 9 2022
WV Department of
Environmental Protection

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

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

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

CK#055363
Amt \$100
Date 2/7/22

Well Operator Columbia Gas Transmission

By: Maria Medvedeva 

Its: Senior Wells Engineer - Well Engineering and Technology

Address 1700 MacCorkle Ave SE

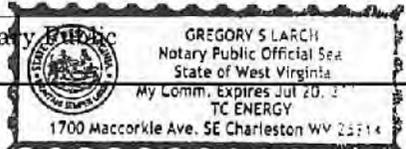
Charleston, WV 25314

Telephone 304-410-4313

Subscribed and sworn before me this 26th day of Jan

My Commission Expires July 20 2022

Notary Public



GREGORY S LARCH
Notary Public Official Seal
State of West Virginia
My Comm. Expires Jul 20, 2022
TC ENERGY
1700 MacCorkle Ave. SE Charleston WV 25314

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.

04/22/2022

Columbia Gas Transmission, LLC
 1700 MacCorkle Ave., SE, Charleston, WV, USA 25314



January 20, 2022

Ralph and Joann Lewis
 7582 Saltlick Rd
 Terra Alta, WV 26764

Columbia Gas Transmission, LLC is applying for a permit to the WV Department of Environmental Protection – Office of Oil and Gas, to plug and abandon an existing underground natural gas storage well located on property owned by you. As reference, the field and well ID is Terra Alta 7398 (API 47-073-00030).

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

RECEIVED
Office of Oil and Gas
FEB 9 2022
WV Department of Environmental Protection

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

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

Terra Alta, WV 26764

Certified Mail Fee	\$3.75
Extra Services & Fees (check box, add fee as appropriate)	\$7.05
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$8.95
Total Postage and Fees	\$13.75

OFFICIAL USE

Postmark: JAN 28 2022
 Here
 01/28/2022

Sent To: Ralph & Joann Lewis
 Street and Apt. No., or PO Box No.: 7582 Saltlick Rd
 City, State, ZIP+4®: Terra Alta, WV 26764

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> 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. 	<p>A. Signature <input checked="" type="checkbox"/> Ralph Lewis <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)</p> <p>C. Date of Delivery 1-31-22</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to: Ralph and Joann Lewis 7582 Saltlick Rd Terra Alta, WV 26764</p>	<p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery</p> <p><input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restrict Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery</p>
<p>2. Article Number (Transfer from service label) 7021 1970 0001 1850 2563</p>	<p>04/22/2022</p>

www.tcenergy.com

SURFACE OWNER WAIVER

Operator's Well
Number

Terra Alta 7398

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

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

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) 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...".

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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.

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 Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

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
ETC.

FOR EXECUTION BY A CORPORATION,
ETC.

_____	Date	_____	Name	_____
Signature			By	
			Its	_____
				Date

Signature

Date
04/22/2022

WW-4B

API No. 47-077-00030 P
Farm Name _____
Well No. Terra Alta 7398
Coal not operated

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

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

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

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

WAIVER

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

Date: _____

By: _____

Its _____

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04/22/2022

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

Operator Name Columbia Gas Transmission OP Code 307032

Watershed (HUC 10) Saltlick Creek Quadrangle Terra Alta

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: fresh water, brine, cement returns, bentonite gel

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)
- Undergound 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))

ANY WELL EFFLUENT WILL BE CONTAINED IN TANKS BEFORE DISPOSING OFF-SITE. JAV/m

Will closed loop system be used? If so, describe: No

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

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

Additives to be used in drilling medium? N/A

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) Subsoils

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Maria Medvedeva*
Company Official (Typed Name) Maria Medvedeva
Company Official Title Senior Wells Engineer - Well Engineering and Technology

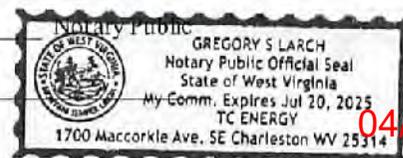
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WV Department of
Environmental Protection

Subscribed and sworn before me this 26th day of Jan, 20 22

My commission expires July 20 2022



04/22/2022

Proposed Revegetation Treatment: Acres Disturbed <1.0 Prevegetation pH 6 - 7

Lime 2 Tons/acre or to correct to pH 7 - 8

Fertilizer type 10-10-10

Fertilizer amount 600 lbs/acre

Mulch hay or straw @ 2 Tons/acre

Seed Mixtures

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

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

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments:

Title: Inspection Date: 4/20/2022

Field Reviewed? (X) Yes () No

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): Saltlick Creek Quad: Terra Alta
Farm Name: _____

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. Small quantities of fuel, oil, and lubrications will be stored on site, but located within secondary containment.
- Accidental release from well fluids and spills from construction equipment are the only sources of contaminants to groundwater.
- 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. 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.

Saltlick Creek is at a distance of 0.12 miles NW.

The Terra Alta Water Works (WV3303917) is the closest Well Head Protection Area at a distance of 2.62 miles NE from discharge area.

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

N/A

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

N/A

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

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

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

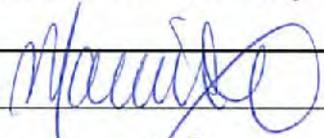
During routine tailgate meetings, groundwater protection will be a topic of discussion.

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

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubricants will be stored on site, but located within secondary containment. Accidental release from well fluids and spills from construction equipment are the only sources of contaminants to groundwater.

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

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WV Department of
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Signature: 

Date: 01.13.2022

ation Plan - Site Detail

7-077-00030)

Devices to be utilized per WV DEP
WV Environmental Construction Standards
Road ditches to be maintained
Erosion control material to be applied as needed

MSGK
4/20/2022

Existing access road

Limit of Proposed Disturbance on existing well site

1.0 acres

Terra Alta - 07398

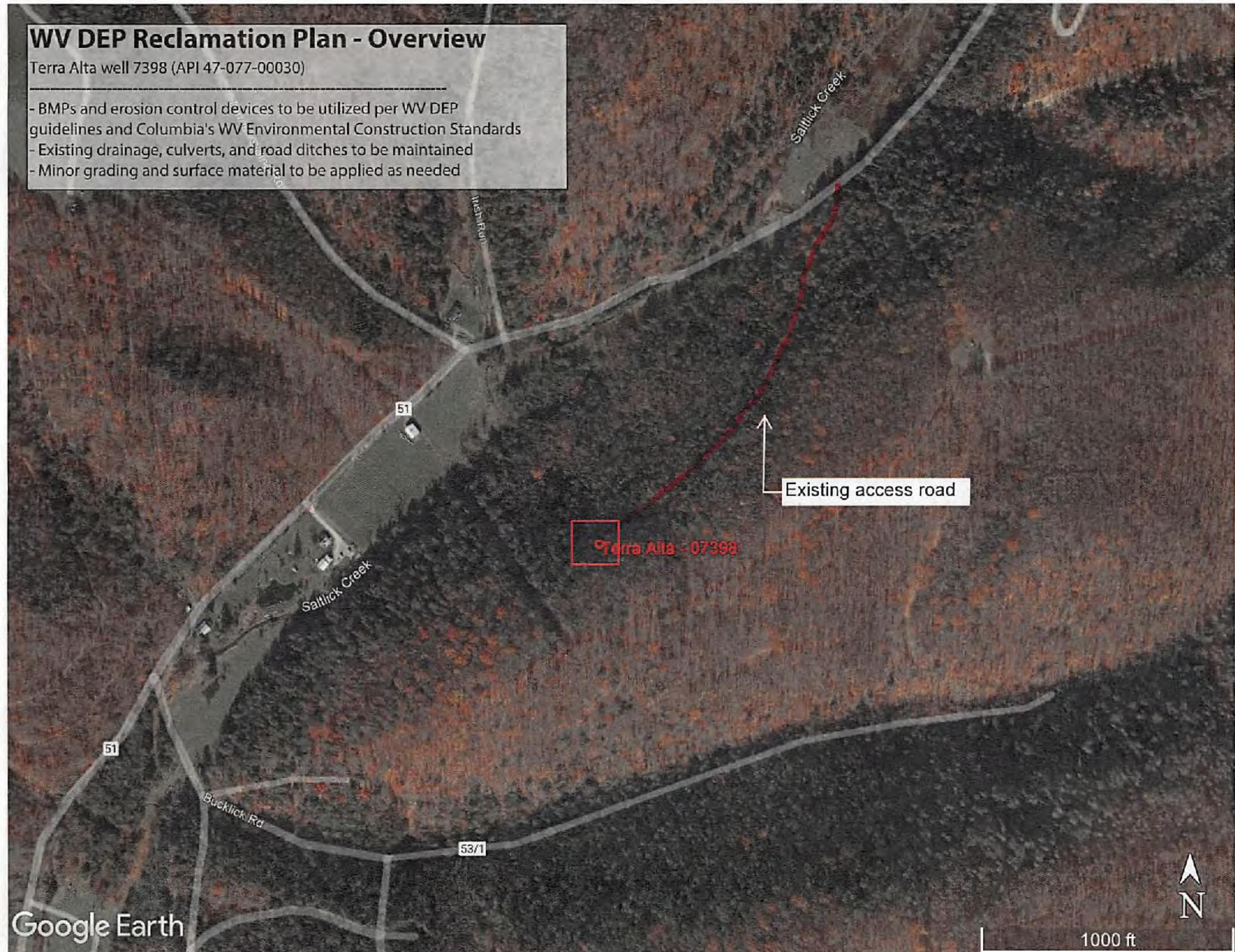
4707700030P



WV DEP Reclamation Plan - Overview

Terra Alta well 7398 (API 47-077-00030)

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



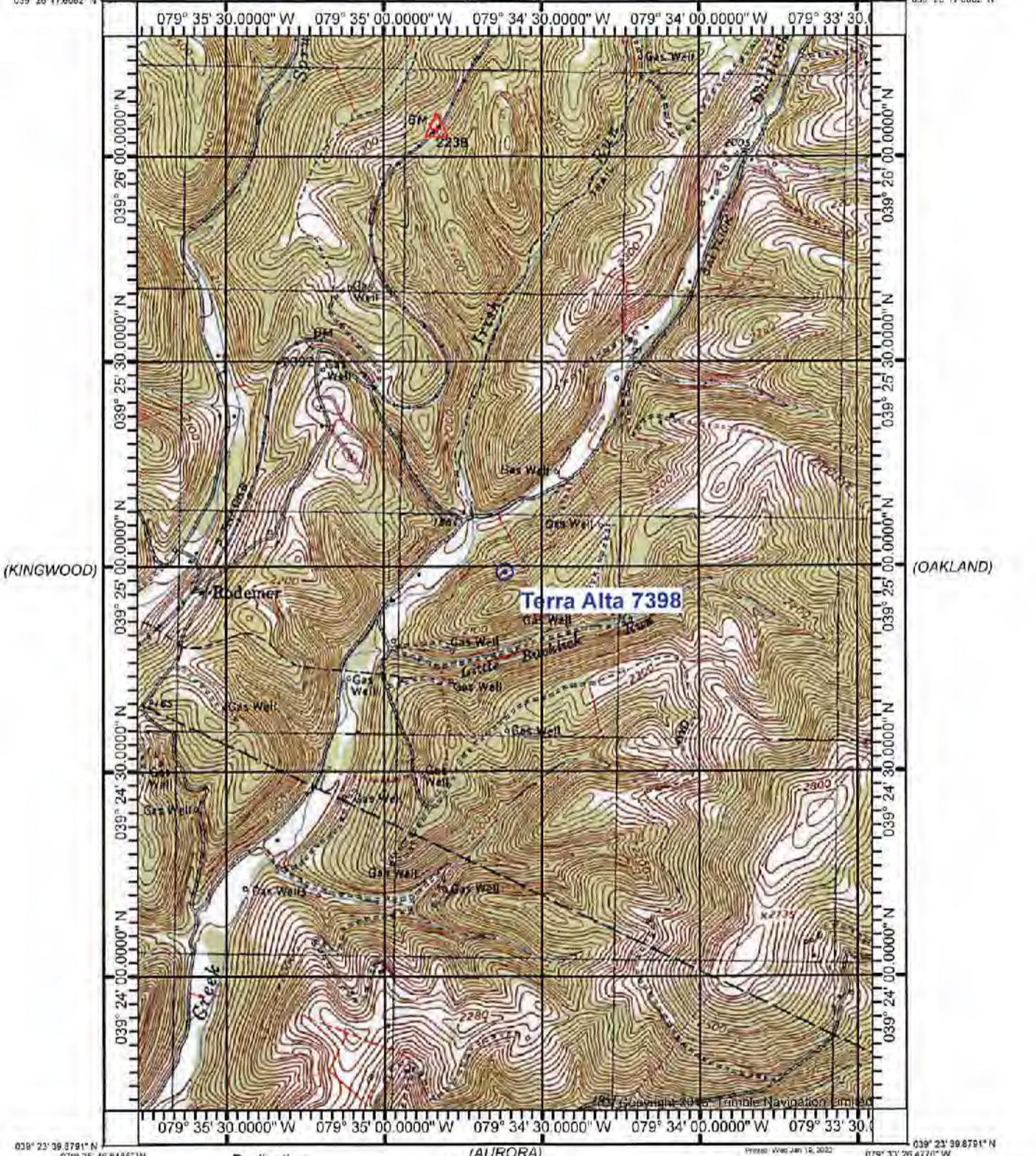
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(VALLEY POINT) 

TERRA ALTA QUADRANGLE
WEST VIRGINIA
TOPOGRAPHIC SERIES (SANG RUN)

079° 35' 46.8485" W
039° 26' 17.6082" N (CUZZART) 079° 33' 26.4776" W 039° 25' 17.6082" N



(ROWLESBURG)

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

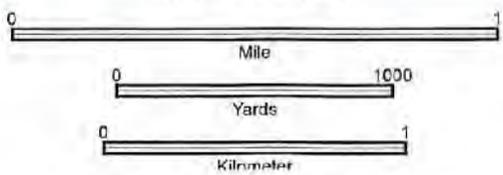
North American 1983 Datum (NAD83)

To place on the predicted North American
1927 move the projection lines 11M N and
19M E

Declination



(AURORA)
SCALE 1:24000

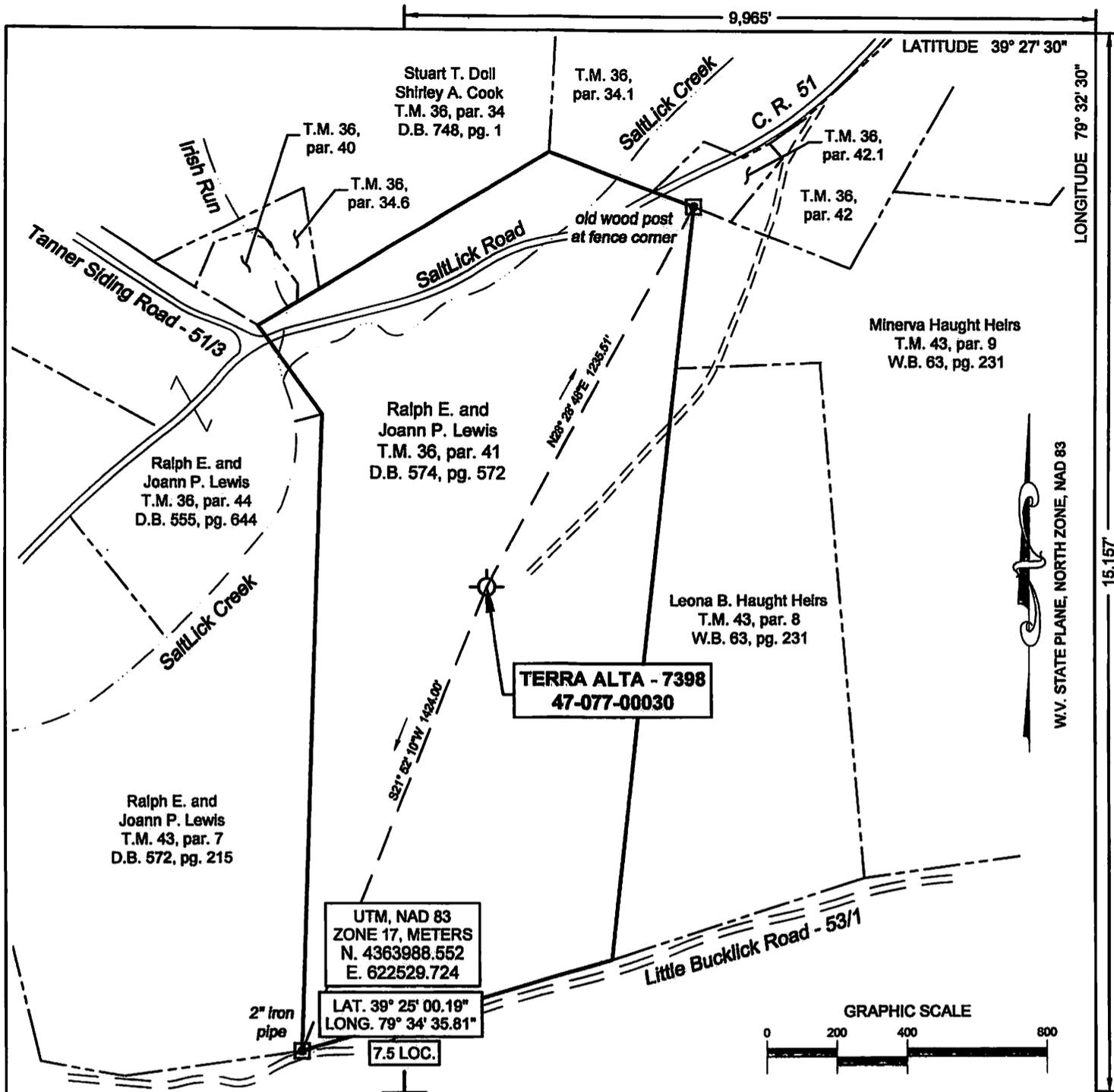


CONTOUR INTERVAL 20 FT

(TABLE ROCK)

39079-D4-TM-024
TERRA ALTA, WV
JAN 1, 2000

04/22/2022



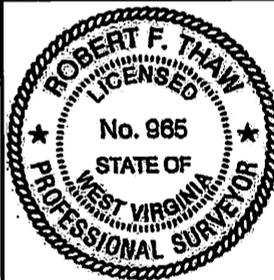
(+) DENOTES LOCATION OF WELL ON USGS TOPOGRAPHIC MAPS

FILE No. 2101-2345-001-014
 DWG No. TERRA ALTA-7398
 SCALE 1"=400'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION TRIMBLE R10
GPS UNIT

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

(SIGNED)

ROBERT F. THAW PS #965



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



DATE JANUARY 14 2022
 OPERATOR'S WELL No. 7398
 API WELL No. 47 077 - 00030

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL STATE 47 COUNTY 077 PERMIT 00030
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 2066.4' WATER SHED SALT LICK CREEK
 DISTRICT PORTLAND COUNTY PRESTON
 QUADRANGLE TERRA ALTA, WV

SURFACE OWNER RALPH AND JOANN LEWIS ACREAGE 48
 OIL & GAS ROYALTY OWNER ELIZABETH SMITH, ET AL.
HELEN T. EGAN AND CHARLES EGAN

LEASE No. 1090330-001, 190330-002 LEASE ACREAGE 48
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
 CLEAN OUT AND REPLUG OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 5788
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT MARIA MEDVEDEVA
 ADDRESS PO BOX 1273, CHARLESTON, WV 25325-1273 ADDRESS 1700 MACCORKLE AVE., S.E. CHARLESTON, WV 25314

FORM IV-6 (8-78)



Stansberry, Wade A <wade.a.stansberry@wv.gov>

Plugging Vertical Well Work Permit (API: 47-077-00030)

1 message

Stansberry, Wade A <wade.a.stansberry@wv.gov>

Fri, Apr 22, 2022 at 3:23 PM

To: Brad Nelson <Brad_Nelson@tcenergy.com>, cervin@prestoncountywv.com, "Gayne J. Knitowski" <gayne.j.knitowski@wv.gov>

I have attached a copy of the newly issued well [permit](#) number. This will serve as your copy.

47-077-00030 - 7398

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

Wade A. Stansberry

Environmental Resource Specialist 3

West Virginia Department of Environmental Protection

Office of Oil & Gas

601 57th St. SE

Charleston, WV 25304

(304) 926-0499 ext. 41115

(304) 926-0452 fax

Wade.A.Stansberry@wv.gov

2 attachments

 **47-077-00030 - Copy.pdf**
2003K

 **IR-8 Blank.pdf**
233K

04/22/2022