



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

Thursday, May 13, 2021

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 7296
47-035-00493-00-00

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: 7296
Farm Name: COAST, C. M., ETAL
U.S. WELL NUMBER: 47-035-00493-00-00
Vertical Plugging
Date Issued: 5/13/2021

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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.

05/14/2021

1) Date 12/24, 2020
 2) Operator's
 Well No. Ripley 7296
 3) API Well No. 47-005 - 00493

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 ___/ Liquid injection ___/ Waste disposal ___/
 (If "Gas, Production ___ or Underground storage) Deep / Shallow ___
- 5) Location: Elevation 617 feet Watershed Sandy Creek
 District Ravenswood County Jackson Quadrangle Sandyville
- 6) Well Operator Columbia Gas Transmission LLC 7) Designated Agent James Amos
 Address 1700 MacCorkle SE Address 48 Columbia Gas Road
Charleston, WV 25325 Sandyville, WV 25275
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
 Name Joe Taylor Name Contractor Services Inc.
 Address 1478 Claylick Road Address 929 Charleston Road
Ripley, WV 25271 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.

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

Work order approved by inspector



Date

12-29-20

05/14/2021

Objective: Plug and Abandon		LAST PROFILE UPDATE:	
TITLE: Plug and Abandon	WELL: 7296		WORK TYPE: WR
FIELD: Ripley	SHL (Lat/Long): 0 0	API: 0	
STAT: WV	BHL (Lat/Long): 0 0	CNTY: 0	
TWP: 0			

PROCEDURE

****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 plugging permit, FERC authorization, 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 environmental inspector prior to beginning work.
 - 5 Notify State O&G inspector prior to beginning work.
 - 6 Disconnect well line.
 - 7 Install ECD's per EM&CP.
 - 8 Prepare access road and well site.
 - 9 Document casing and annular pressures.
 - 10 Blow down all annuli, replace fittings as needed, and leave annuli open to atmosphere for monitoring.
 - 11 Kill well with viscosified fluid. Spearhead 10 bbl LCM ahead.
 - 12 Fill 4x7, 7x8, and 8x13 annuli with kill fluid. Fill all remaining annuli with FW. Document volumes.
 - 13 Dig around base of wellhead to uncover casing tops and remove cement if present.
 - 14 MIRU service rig.
 - 15 NU 7-1/16" Cameron 5K BOPE (blind/shear + pipe + annular) on top of master valve. Need kill and choke outlets below blind/shear.
 - 16 Function and pressure test BOPE to low (250 psig) and high (2500 psig).
 - 17 TIH w/ 2-3/8" drill pipe workstring with cut-lip shoe and wash to TD.
 - 18 Install balanced cement plug from TD to 4000'.
 - 19 POOH to above cement, reverse circulate to clean tubulars, pull 10 joints, close pipe rams, and WOC.
 - 20 WOC minimum 8 hours. RIH and tag cement. If cement top is deeper than 4200' then spot a second balanced cement plug.
 - 21 Install 4-1/2" CIDBP above cement plug.
 - 22 Top off 4-1/2" with kill fluid and perform 500 psig pressure test to verify integrity of BP.
 - 23 Obtain CBL from 1000' to surface. Provide digital copy to WET engineer and consult to confirm next steps.
 - 24 ND BOPE.
 - 25 Weld pulling nipples on 4-1/2" csg stub and pull seals/slips.
 - 26 Weld pulling nipple on 7" csg stub and dress top of 8-5/8" to accommodate BOPE.
 - 27 Strip 11" BOPE (blind + pipe rams + annular) over stubs and NU on 8-5/8" csg. Will need kill/choke outlets below blind rams.
 - 28 Function test and pressure test pipe rams low (250 psig) and high (2000 psig).
 - 29 Wireline freepoint 4-1/2" csg and consult with WET engineer to determine next Steps.
- * It's likely that 4-1/2" csg is cemented inside 7" csg and both may move. If so consider cutting both strings and pulling. Consult with WET engineer.

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If freepoint is deeper than 2100' proceed to Step 30. If freepoint is shallower than 2100' jump to Step 60.

- 30 Sand cut both 4-1/2" and 7" casings at freepoint depth.
- 31 Pull up 5 ft to separate casing and circulate kill fluid to surface - circulate until clean and kill fluid density returns to surface.
- 32 Pull 4-1/2" and 7" casings together.
- 33 RIH with 2-3/4" work string and install balanced cement plugs from BP to 2100'.
- 34 WOC 6 hours and tag plug. Report to WET engineer.
- 35 ND BOPE.
- 36 Weld pulling nipple on 8-5/8" csg stub
- 37 Dress top of 13-3/8" to accommodate BOPE.
- 38 Strip 11" spool (with kill/choke outlets) and 11" annular BOP.
- 39 Function test and pressure test pipe rams low (250 psig) and high (500 psig).
- 40 Attempt to pull all 8-5/8" casing. If can't pull, wireline freepoint and cut/pull all that is free.
- 41 TIH w/2-3/8" workstring.
- 42 Spot balanced cement plug from top of last cement plug to 800 ft.
- 43 POOH to above cement, reverse circulate to clean tubulars, pull 5 joints, and WOC.
- 44 WOC minimum 4 hours. RIH and tag cement. If cement top is less than 100' from top of 8-5/8" csg stub install second cement plug.
- 45 ND BOPE.
- 46 Drive 10 to 20 feet of 16" casing.
- 47 Wireline freepoint 13-3/8" casing. Report to WET engineer.
- 48 Will either perf/squeeze or cut/pull casings.
- 49 Install cement from top of last cement plug to surface.
- 50 Grout all annuli as deep as possible.

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[Handwritten Signature]
12-29-20

05/14/2021

WELL JOB PLAN		Well Engineering & Technology		PAGE 3	DATE JOB PREPARED: 12/21/2020
Objective: Plug and Abandon				LAST PROFILE UPDATE:	
TITLE: Plug and Abandon		WELL: 7296		WORK TYPE: WR	
FIELD: Ripley	SHL (Lat/Long): 0 0			API: 0	
STAT: WV	BHL (Lat/Long): 0 0			CNTY: 0	
TWP: 0	PROCEDURE CONTINUED (PAGE 2)				

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- 51 RDMO service rig.
- 52 Erect monument per state regulations. Reclaim location and lease road.
- 53 P&A complete.

If freepoint is shallower than 2100' proceed with following Steps.

- 60 Perforate thru both 4-1/2" and 7" casings above BP with 4 SPF phased 90 degree. Consult with perf company on charge needed.
- 61 Perform injection/circulation test.
- 62A If injection or circulation behind 7" csg is established: If circulation to surface established between 4x7 then procedure will need modified - consult with WET engineer before proceeding.
 - RIH with sliding-sleeve cement retainer and set above perms.
 - Confirm circulation.
 - Disengage/engage to function test retainer.
 - Cement with pre-determined volume not to exceed annular volume up to 2100'.
 - Consult with WET engineer to determine if CBL to be obtained.
- 62B If circulation/injection not established: Perforate at 3500-02'. Repeat process above.
- 62C Repeat process above as needed, perforating at following intervals:
 - 3000 - 02'
 - 2500-02'.

* 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 2100'.

If freepoint is between 900 - 2100' proceed with Step 70. If freepoint is shallower than 900' jump to Step 100.

- 70 Sand cut both 4-1/2" and 7" casings at freepoint depth.
- 71 Pull up 5 ft to separate casing and circulate kill fluid to surface - circulate until clean and kill fluid density returns to surface.
- 72 Pull 4-1/2" and 7" casings together.
- 73 RIH with 2-3/8" work string and install balanced cement plugs from top of last cement plug to 150' above top of csg stubs.
- 74 WOC 4 hours and tag plug. Report to WET engineer.
- 75 ND BOPE.
- 76 Weld pulling nipple on 8-5/8" csg stub
- 77 Dress top of 13-3/8" to accommodate BOPE.
- 78 Strip and NU 11" spool (with kill/choke outlets) and 11" annular BOP on 13-3/8" csg.
- 79 Function test and pressure test pipe rams low (250 psig) and high (500 psig).
- 80 Attempt to pull all 8-5/8" casing. If can't pull, wireline freepoint and cut/pull all that is free.
- 81 TIH w/2-3/8" workstring.
- 82 Spot balanced cement plug from top of last cement plug to 800 ft.
- 83 POOH to above cement, reverse circulate to clean tubulars, pull 5 joints, and WOC.
- 84 WOC minimum 4 hours. RIH and tag cement. If cement top is less than 100' from top of 8-5/8" csg stub install second cement plug.
- 85 ND BOPE.
- 86 Drive 10 to 20 feet of 16" casing.
- 87 Wireline freepoint 13-3/8" casing. Report to WET engineer.
- 88 Will either perf/squeeze or cut/pull casings.
- 89 Install cement from top of last cement plug to surface.
- 90 Grout all annuli as deep as possible.
- 91 RDMO service rig.
- 92 Erect monument per state regulations. Reclaim location and lease road.
- 93 P&A complete.

If freepoint is shallower than 900' proceed to Step 100. NOTE THAT STEPS 100 - 104 MAY NOT BE PERFORMED - CONSULT WITH WV DEP INSPECTOR.

- 100 Sand cut both 4-1/2" and 7" casings at freepoint depth.
- 101 Pull up 5 ft to separate casing and circulate kill fluid to surface - circulate until clean and kill fluid density returns to surface.
- 102 Pull 4-1/2" and 7" casings together.
- 103 RIH with work string and install balanced cement plugs from top of last cement plug to 150' above top of csg stubs.

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PREPARED BY: Jim Amos	REVIEWED BY:	APPROVED:
PREP DATE: 12/21/2020		

Joe [Signature]
12-29-20

05/14/2021

WELL JOB PLAN

Well Engineering & Technology

PAGE 4

DATE JOB PREPARED: 12/21/2020

Objective: Plug and Abandon

LAST PROFILE UPDATE:

TITLE: Plug and Abandon		WORK TYPE: WR	
FIELD: Ripley	WELL: 7296		
STAT: WV	SHL (Lat/Long): 0 0	API: 0	
TWP: 0	BHL (Lat/Long): 0 0	CNTY: 0	

PROCEDURE CONTINUED (PAGE 3)

- 104 WOC 4 hours and tag plug. Report to WET engineer.
- 105 ND BOPE.
- 106 Weld pulling nipple on 8-5/8" csg stub
- 107 Drive 10 to 20 feet of 16" casing.
- 108 Dress top of 13-3/8" to accommodate BOPE.
- 109 Strip and NU 11" spool (with kill/choke outlets) and 11" annular BOP on 13-3/8" csg.
- 110 Function test and pressure test pipe rams low (250 psig) and high (500 psig).
- 111 Attempt to pull all 8-5/8" casing. If can't pull, wireline freepoint and cut/pull all that is free.
- 112 TIH w/2-3/8" workstring.
- 113 Spot balanced cement plug from top of last cement plug to 800 ft.
- 114 POOH to above cement, reverse circulate to clean tubulars, pull 5 joints, and WOC.
- 115 WOC minimum 4 hours. RIH and tag cement. If cement top is less than 100' from top of 8-5/8" csg stub install second cement plug.
- 116 ND BOPE.
- 117 Wireline freepoint 13-3/8" casing. Report to WET engineer.
- 118 Will either perf/squeeze or cut/pull casings.
- 119 Install cement from top of last cement plug to surface.
- 120 Grout all annuli as deep as possible.
- 121 RDMO service rig.
- 122 Erect monument per state regulations. Reclaim location and lease road.
- 123 P&A complete.

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PREPARED BY: Jim Amos	REVIEWED BY:	APPROVED:
PREP DATE: 12/21/2020		

Joe [Signature]
12-29-20

05/14/2021

Objective: Plug and Abandon LAST PROFILE UPDATE:

TITLE: Plug and Abandon			WELL: 7296				WORK TYPE: WR	
FIELD: Ripley			SHL (Lat/ Long)				API:	
STATE: WV			BHL (Lat/Long)				CNTY:	
DIST:							FORMATION: Oriskany	
EXISTING TUBULAR CONFIGURATION			OD (inches)		WEIGHT (PPF)		DEPTH (ft)	
							DEPTH: See below.	
Conductor							PAY:	
Surface							ELEVATIONS	
Intermediate1							TMG:	
Intermediate2							KB-RF:	
Production							GL:	
Tubing							CSG DEPTH WELLBORE SCHEMATIC	
Perforations							<p style="font-size: 2em; color: blue;">4703500493P</p>	
Perforations								
Perforations								
Wellhead								

D.H. EQUIPMENT		TYPE	DEPTH (ft)
PACKER INFO: Upper			
Lower			
NIPPLE PROFILE INFO: Upper			
Lower			
SSSV INFO:			

CEMENT INFO

TOC (ft)

MISC INFORMATION

REFER TO WELL SUMMARY REPORT and WELLBORE DIAGRAM

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PROPOSED YEAR: 2020	ERCB PERMIT REQD: YES ___ NO <u>X</u>	(Internal) PDS Required: YES ___ NO ___
PREPARED BY: Jim Amos	DT. APPLIED: ISSUED:	APPROVED: <small>Recoverable Signature</small>
PREP DATE: 12/21/2020	REVIEWED BY:	James Amos Principal Engineer Signed by: 83aa62d7-b683-404d-8328-f042f2e33502

~ not to scale ~

Ripley 7296

Proposed P&A

(as of 12/9/2020)

CBL indicates there is cement from packer to top logged interval at 500'. Very possible that 4-1/2" is cemented at/near surface.

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Sea Level @ 617 ft.

13-3/8" csg @ 768'

Old 1954 recondition work order states that scope is to "cement between all strings of casing", but no records to verify actual work performed.

Pull all casing that is free.

*Salt water reported at 1199'

12-1/4" hole @ 1028'

Salt Sand 1519'-1630'

Little Lime 1646'-1660'

Greenbrier 1665'-1790'

Big Injun 1790'-2241'

8-5/8" csg @ 1960'

1945 WV Dept. of Mines Well Record indicates 8-5/8" cemented but no record of volume. Old 1954 recondition work order states that scope is to "cement between all strings of casing", but no records to verify actual work performed.

Pull all casing that is free.

Coffee 2241'-2265'
(show gas @ 2258' and 2264')

Berea 2265'-2280'

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

Light grey indicates cement that was likely installed during 1954 well recondition.

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Bridge plug

7" csg @ 4651'

1945 WV Dept. of Mines Well Record indicates 7" cemented but no record of volume. Old 1954 recondition work order states that scope is to "cement between all strings of casing", but no records to verify actual work performed. Squeeze cement.

Onondaga 4645'-4743'

Oriskany 4743'-4775'
(gas storage)

4-1/2" 12.6# J-55 tubing ran to 4777' set a wall & anchor packer at 4672' w/ uncemented slotted tailpipe.

Old 1954 recondition work order states that scope is to "cement between all strings of casing", but no records to verify actual work performed. CBL shows cement from packer to top logged interval of 500'.

05/14/2021

TD 4777'

~ not to scale ~

Ripley 7296

Prior to P&A
(as of 10/29/2020)

4703500493P

CBL indicates there is cement from packer to top logged interval at 500'. Very possible that 4-1/2" is cemented at/near surface.

Sea Level @ 617 ft.

13-3/8" csg @ 768'
(no record of cement)

12-1/4" hole @ 1028'

*Salt water reported at 1199'.

- Salt Sand 1519'-1630'
- Little Lime 1646'-1660'
- Greenbrier 1665'-1790'
- Big Injun 1790'-2241'

- Coffee 2241'-2265'
(show gas @ 2258' and 2264')
- Berea 2265'-2280'

8-5/8" csg @ 1960'
1945 WV Dept. of Mines Well Record indicates 8-5/8" cemented but no record of volume. Old 1954 recondition work order states that scope is to "cement between all strings of casing", but no records to verify actual work performed.

Hashed fill indicates possible cement installed during well recondition in 1954.

Light grey indicates cement that was likely installed during 1954 well recondition.

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Joe [Signature]
12-29-20

7" csg @ 4651'.
1945 WV Dept. of Mines Well Record indicates 7" cemented but no record of volume. Old 1954 recondition work order states that scope is to "cement between all strings of casing", but no records to verify actual work performed.

- Onondaga 4645'-4743'
- Oriskany 4743'-4775'
(gas storage)

4-1/2" 12.6# J-55 tubing ran to 4777' set a wall & anchor packer at 4672' w/ uncemented slotted tailpipe. Old 1954 recondition work order states that scope is to "cement between all strings of casing", but no records to verify actual work performed. CBL shows cement from packer to top logged interval of 500'.

05/14/2021

TD 4777'

RIPLEY 7296

X-579

7296 COLUMBIA GAS TRANSMISSION CORP.
P. O. BOX 610
CLENDENIN, WEST VIRGINIA 25014

F-19924

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

4703500493P

Gas Well
Casing & Tubing

Company United Carbon Company
 Address Box 1913, Charleston 27, W. Va.
 Farm C. M. Coast et al. Acres 2.38
 Location Sandy Creek
 Well No. 1 (1296) Elev. 614.3' Gr.
 District Ravenswood - Jackson County
 Surface C. M. Coast et al., Rt. 1
 Ravenswood, W. Va.
 Mineral Same
 Commenced June 26, 1945
 Completed Oct. 6, 1945
 Date shot 19-7-45 Depth 4744 to 4771
 with 40 qts. glycorine
 Open flow 62/10ths M in 7" OD 32#
 Volume 12,534,000 C.F.
 Rock Pressure 1550 lbs. 24 hrs.
 Salt Water 1199' H.F.

13 3/8	768'	768'
10 3/4	1028	0
8 5/8	1960	1960
7 OD	4651	4651
2 3/8	4777	4777

Casing cemented:
 8 5/8" 1210'
 7" OD 4547'

Sand	0	8
Red Rock	8	100
Sand	100	120
Red Rock	120	195
Sand	195	254
Slate	254	328
Red Rock	328	340
Sand	340	370
Red Rock	370	420
Sand	420	490
Shell Black	490	500
Slate	500	590
Sand	590	616
Slate	616	640
Red Rock	640	680
Sand	680	705
Red Rock	705	800
Shell	800	844
Red Rock	844	988
Sand	988	1015
Shell Black	1015	1197
Sand	1197	1244
Slate	1244	1485
Salt Sand	1485	1646
Little Lime	1646	1660
Big Lime	1660	1780
Slate	1780	1782
Sand	1782	1872
Lime Shell	1872	1992
Slate & Shells	1992	2258 Gas 2258' show
Berea Sand	2258	2264 Gas 2264' show
Slate & Shells	2264	3712
Shale Brown	3712	3980
Slate White	3980	4080
Slate & Shells	4080	4353
Shale Brown	4353	4639
Corniferous Lime	4639	4743
Oriskany Sand	4743	4775
Lime	4775	4777
TOTAL DEPTH		4777

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Environmental Protection

X-579

4703500493 P

WW-9
(5/16)

API Number 47 - 035 - 00493
Operator's Well No. _____

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) Sandy Creek Quadrangle Sandyville

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.? 20

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number 34-119-28776-, 34-167-23862)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Appalachian Water Services, Station W1 Ronco WTP, Masontown, PA - Permit 2608201)

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? _____

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 James E. Amos 12/29/20
Company Official (Typed Name) James E. Amos
Company Official Title Team Leader, Well Engineering & Technology

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WV Department of Environmental Protection

Subscribed and sworn before me this 29th day of December, 2020

M. D. McClung
My commission expires June 19, 2022

Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
MICHAEL D MCCLUNG
413 FITZHUGH STREET, RAVENSWOOD, WV 26041
MY COMMISSION EXPIRES JUNE 19, 2022

12-25-20
05/14/2021

Operator's Well No. _____

Proposed Revegetation Treatment: Acres Disturbed <1.0 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 10-10-10

Fertilizer amount 600 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Rye	40	Orchard Grass and/or Tall Fescue	29
		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: Joe Taylor

Comments: Sediment control in place At All Time

Title: OOG Inspector

Date: 12-29-20

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Field Reviewed? 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): Sandy Creek Quad: Sandyville
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 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 contaminate 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 equipment will be 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.

Cherry Camp Run - 0.16 miles. Ravenswood Municipal Water Works (WV3301810) - 4.72 miles.

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

N/A

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

JDZ

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.

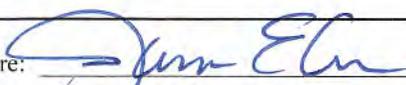
8. Provide provisions and frequency for inspections of all GPP elements and equipment.

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubricants will be stored on site, but located within secondary containment. Construction equipment will be inspected daily for leaks or spills.

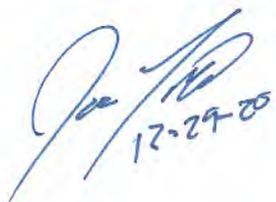
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Signature: 

Date: 12/29/20



WW-4A
Revised 6-07

1) Date: 12/24/2020
2) Operator's Well Number
Ripley 7296
3) API Well No.: 47 - 035 - 00493

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>Paul E. and Patricia Ann Shockey</u>	Name <u>Not operated.</u>
Address <u>714 Crooked Run Road</u>	Address _____
<u>Ravenswood, WV 26164-3826</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Joe Taylor</u>	(c) Coal Lessee with Declaration
Address <u>1478 Claylick Road</u>	Name _____
<u>Ripley, WV 25271</u>	Address _____
Telephone <u>304.380.7469</u>	_____

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

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

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

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



Well Operator	<u>Columbia Gas Transmission</u>
By:	<u>James Amos</u> <i>[Signature]</i> <u>12/29/20</u>
Its:	<u>Team Leader - Well Engineering and Technology</u>
Address	<u>48 Columbia Gas Road</u>
	<u>Sandyville, WV 25275</u>
Telephone	<u>304.373.2412</u>

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Subscribed and sworn before me this 29th day of December, 2020
[Signature] Notary Public
My Commission Expires June 19, 2022

WV Department of Environmental Protection

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.

SURFACE OWNER WAIVER

Operator's Well
Number

Ripley 7296

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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WV Department of Environmental Protection

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,

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

Signature

Date
05/14/2021

WW-4B

API No. 47-035-00493
Farm Name _____
Well No. Ripley 7296

**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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WV Department of
Environmental Protection

4703500493P

Columbia Gas Transmission, LLC

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



December 24, 2020

Paul and Patricia Shockey
714 Crooked Run Road
Ravenswood, WV 26164-3826

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 Ripley 7296 (API 47-035-00493).

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,

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

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WV Department of
Environmental Protection

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 X <u>00-19</u> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received By (Printed Name) <u>JERI</u> C. Date of Delivery <u>1-2-21</u></p>
<p>1. Article Addressed to:</p> <p><u>PAUL & PATRICIA SHOCKEY</u> <u>714 CROOKED RUN RD</u> <u>RAVENSWOOD, WV 26164-3826</u></p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:</p>
<p>2. Article Number (Transfer from sorting label)</p> <p><u>9590 9402 3688 7335 3537 65</u></p> <p><u>7017 0660 0001 0359 5675</u></p>	<p>3. Service Type</p> <ul style="list-style-type: none"> <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"/> Delivery Restricted Delivery <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Priority Mail Express®

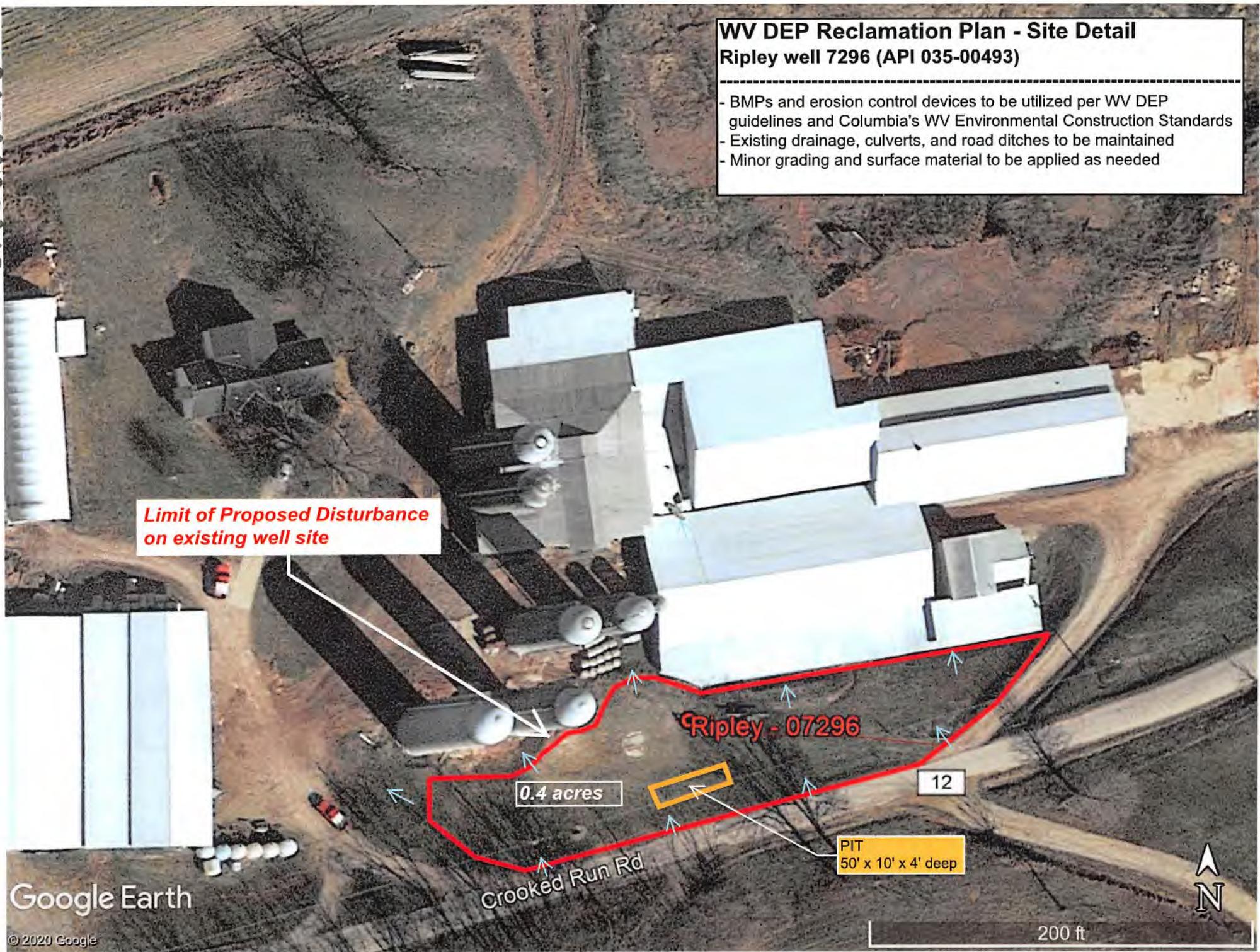
05/14/2021

4703500493P

WV DEP Reclamation Plan - Site Detail Ripley well 7296 (API 035-00493)

- 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

Limit of Proposed Disturbance on existing well site



Google Earth

© 2020 Google

200 ft

WV DEP Reclamation Plan - Site Detail
Ripley well 7296 (API 035-00493)

4703500493P

- 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

**Limit of Proposed Disturbance
on existing well site**

Ripley - 07296

0.4 acres

12

Crooked Run Rd

Google Earth

© 2020 Google

200 ft



Handwritten signature
12-25-26

WV DEP Reclamation Plan - Overview Ripley well 7296 (API 035-00493)

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



Google Earth

© 2020 Google

21

Crooked Run Rd



1000 ft

[Handwritten signature]
 02-22-21



SANDYVILLE QUADRANGLE
WEST VIRGINIA
TOPOGRAPHIC SERIES

(ROCKPORT)

(PORTLAND)

(POND CREEK)

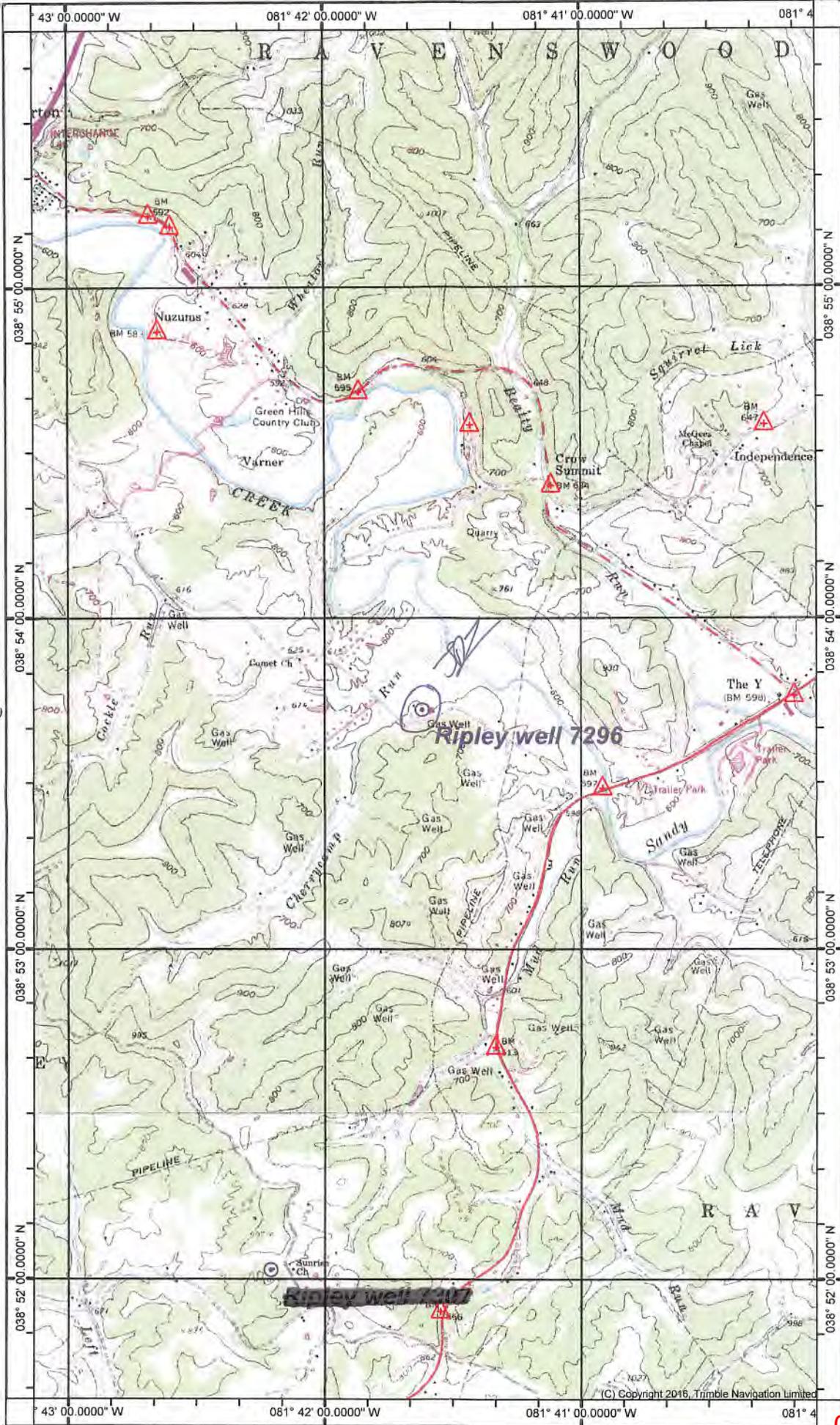
470350049

081° 43' 06.0999" W

081° 40' 04.0792" W

038° 55' 46.6771" N

038° 55' 46.6771" N



(RAVENSWOOD)

(LIVERPOOL)

(COTTAGEVILLE)

(GAY)

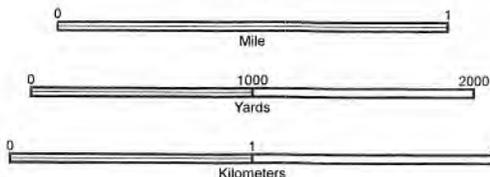
Produced by Trimble Terrain Navigator Pro
Topography based on USGS 1:24,000 Maps
North American 1983 Datum (NAD83)
To place on the predicted North American 1927 move the
projection lines 9M N and 13M E

Declination



GN 0.43° W
MN 7.81° W

(RIPLEY)
SCALE 1:24000



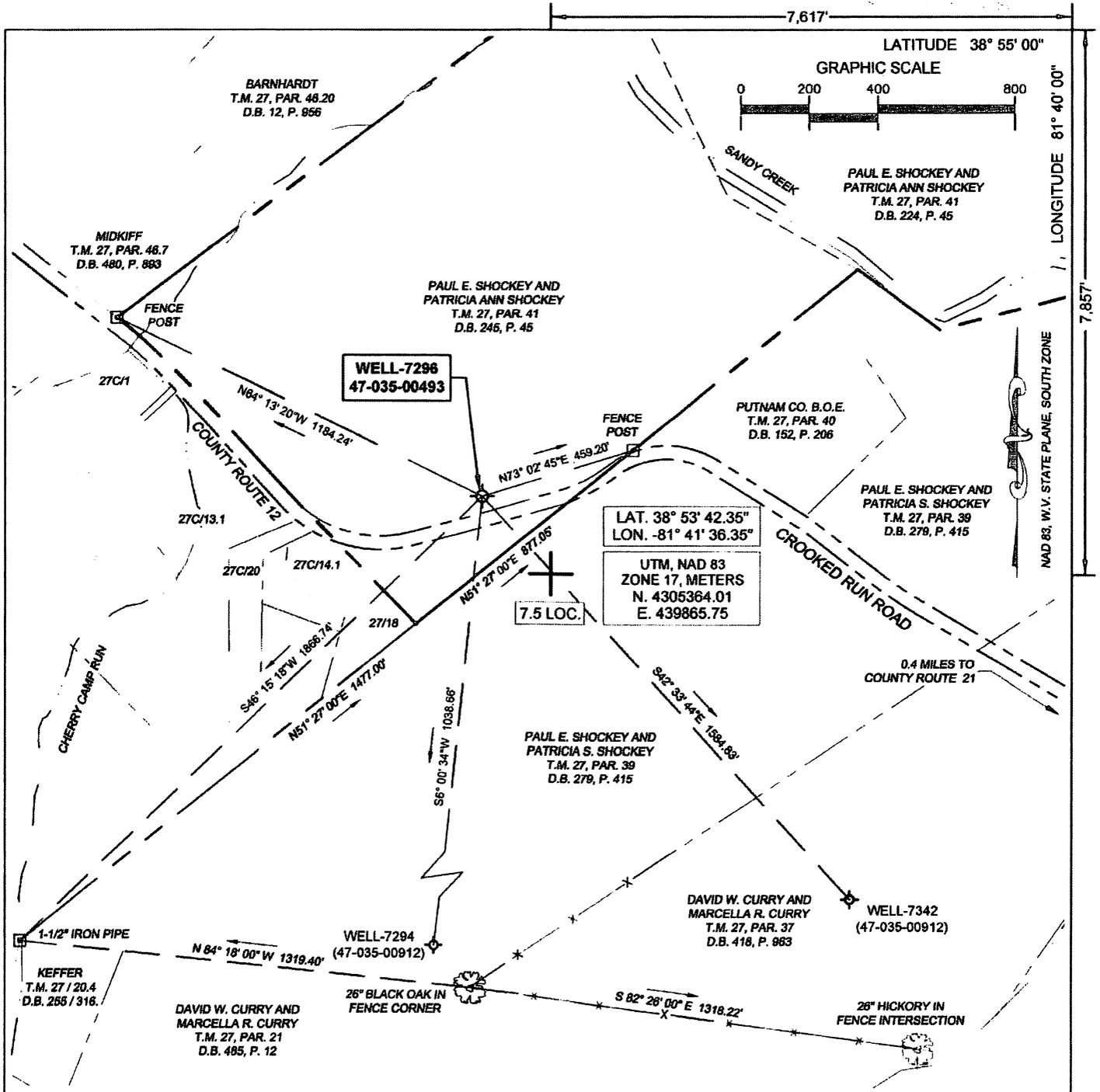
CONTOUR INTERVAL 20 FT

Printed: Wed Dec 02, 2009

081° 40' 04.0792" W

05/14/2021

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

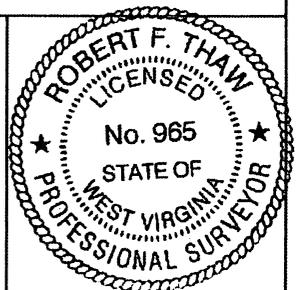


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE No 2001-3079-001-015
 DRAWING No. RIPLEY-7296
 SCALE 1"=400'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION TRIMBLE R8-3
 GPS UNIT

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

(SIGNED) R. Thaw
 ROBERT F. THAW PS #965



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

DATE NOVEMBER 4 2020
 OPERATOR'S WELL No. 7296
 API WELL No. 47 035 - 00493P

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

LOCATION: ELEVATION 617.4' WATER SHED SANDY CREEK
 DISTRICT RAVENSWOOD COUNTY JACKSON
 QUADRANGLE SANDYVILLE, WV

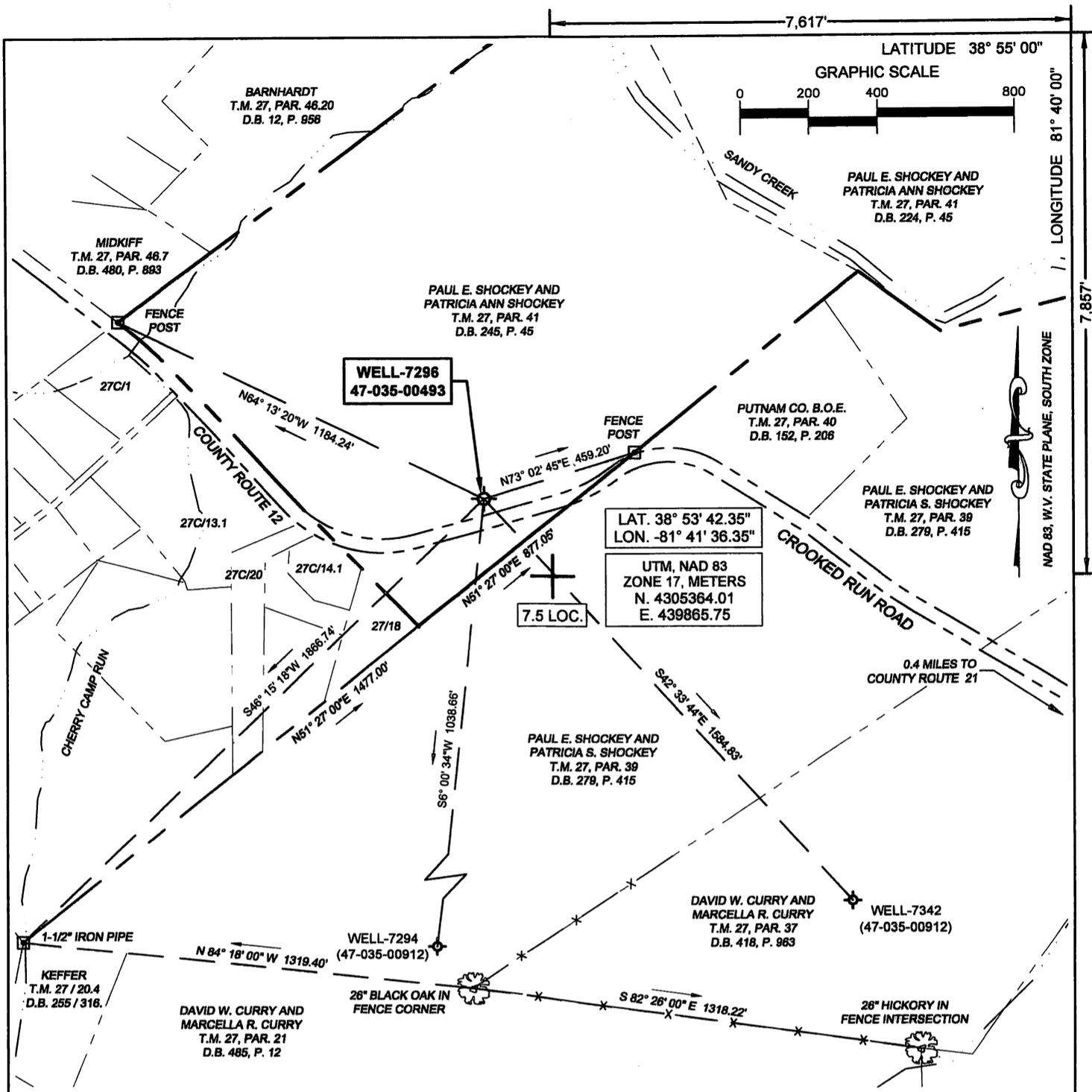
SURFACE OWNER PAUL E. SHOCKEY AND PATRICIA ANN SHOCKEY ACREAGE 112.65 +/-
 OIL & GAS ROYALTY OWNER SAMUEL E. MATHENY, ET AL

LEASE ACREAGE 46 LEASE NO. 1052519-000

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION 05/14/2021
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION ORISKANY ESTIMATED DEPTH 4777
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT JAMES AMOS
 ADDRESS PO BOX 1273, CHARLESTON, WV ADDRESS 48 COLUMBIA GAS ROAD
25325-1273 SANDYVILLE, WV 25275

FORM IV-6 (8-78)

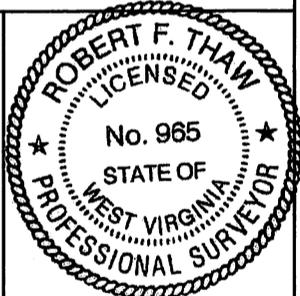


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE No 2001-3079-001-015
 DRAWING No. RIPLEY-7296
 SCALE 1"=400'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION TRIMBLE R8-3
GPS UNIT

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

(SIGNED) R. Thaw
ROBERT F. THAW PS #965



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



DATE NOVEMBER 4 2020
 OPERATOR'S WELL No. 7296
 API WELL No. 47 035 - 00493P

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL STATE 47 COUNTY 035 PERMIT 00493P
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 617.4' WATER SHED SANDY CREEK
 DISTRICT RAVENSWOOD COUNTY JACKSON
 QUADRANGLE SANDYVILLE, WV
 SURFACE OWNER PAUL E. SHOCKEY AND PATRICIA ANN SHOCKEY ACREAGE 112.65 +/-
 OIL & GAS ROYALTY OWNER SAMUEL E. MATHENY, ET AL
 LEASE ACREAGE 46 LEASE NO. 1052519-000

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE 05/14/2021
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 4777
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT JAMES AMOS
 ADDRESS PO BOX 1273, CHARLESTON, WV 25325-1273 ADDRESS 48 COLUMBIA GAS ROAD SANDYVILLE, WV 25275

FORM IV-6 (8-78)