



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

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

Friday, August 24, 2018
WELL WORK PERMIT
Vertical / Re-Work

COLUMBIA GAS TRANSMISSION, LLC
1700 MACCORKLE AVENUE SE

CHARLESTON, WV 25314

Re: Permit approval for 1-3522
47-051-00056-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

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

James A. Martin
Chief

Operator's Well Number: 1-3522
Farm Name: VAUGHN, E. N.
U.S. WELL NUMBER: 47-051-00056-00-00
Vertical Re-Work
Date Issued: 8/24/2018

I

PERMIT CONDITIONS

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

CONDITIONS

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

08/24/2018

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	Marshall	Liberty	Littleton, WV
--------	----------	---------	---------------

Operator ID County District Quadrangle

2) Operator's Well Number: Victory B 3522 3) Elevation: 1234.0 ft

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

5) Proposed Target Formation(s): Maxton Proposed Target Depth: 1916 MD ft

6) Proposed Total Depth: 1960 MD ft (existing) Feet Formation at Proposed Total Depth: Maxton

7) Approximate fresh water strata depths: 80 ft, 935 ft

8) Approximate salt water depths: none reported by driller in 1936

9) Approximate coal seam depths: Pittsburgh 930 - 35'

10) Approximate void depths,(coal, Karst, other): none reported by driller in 1936

JL
7/24/18

11) Does land contain coal seams tributary to active mine? yes

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

Kill. Replace wellhead. Coiled tubing clean-out. Acid treatment (<1000 gals HCl).

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	14	??	??	16	16	no record of cement
Fresh Water	10-3/4	??	??	284	284	no record of cement
Coal	8-5/8	J-55	24	1446	1446	350 sx
Intermediate						
Production	7	J-55	20	1919	1919	250 sx
Tubing						
Liners						

Packers: Kind: _____
Sizes: _____
Depths Set _____

RECEIVED
Office of Oil and Gas

JUL 30 2018

PROPOSED MANNER OF PLUGGING AND FILLING WELL

(REQUIRED BY RULES AND REGULATIONS)

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION

WORK ORDER

Well to be plugged and filled as follows: PARTIAL PLUGGING REQUEST

TOTAL DEPTH	35 2217		
Clay	2217	2091	
Cement	2091	2081	Full 6 5/8" Casing set @ 2077'

After Schlumberger has surveyed hole a lead plug will be set in bottom of Maxton sand Well to be used for storage in Maxton Sand.

RECEIVED
Office of Oil and Gas

JUL 30 2018

WV Department of
Environmental Protection

To the Department of Mines
Coal Owner or Operator,
Lease or Property Owner.

Gentlemen:

This "work order" is submitted for your approval and concurrence and unless notified of your disapproval or non-concurrence, the undersigned will proceed with the plugging and filling of said well in the above described manner on the date stated in the notice of intention to plug and abandon the said well on opposite side of this sheet.

Very truly yours,

Well Operator.

No objections have been filed by the coal owner or coal operator, or any available adjacent lease or property owners or interposed by the Department of Mines to the manner herein described for the plugging and filling of the well above mentioned. Therefore, the same is hereby approved this

_____ day of _____, 19_____

DEPARTMENT OF MINES
Oil and Gas Division

By: _____

NOTE: This "work order" shall be filed in triplicate, one copy for the files of the Department of Mines; one to be approved or corrected and returned to the well operator as his authority for plugging said well; and one for the well inspector.



08/24/2018

FORM 100 5-60

The Manufacturers Light and Heat Company
Company

3522

Division 4

Record of well No. 3522 on E. H. Vaughn Farm Acres
Cameron Field Liberty DEWONCK District Marshall County W Va. State
Rig Commenced 19 Completed 19
Drilling Commenced Nov. 18, 1954, Completed March 23, 1955
Contractor E. B. Mulvaney Address Waynashburg, Pa.
Driller's Name W. A. Lightner and Edd Rinehart

CASING AND TUBING RECORD

Used in Drilr.	Conductor	13"	10"	8 1/4"	7"	6 5/8"	6 3/16"	4"	3"
Left in well			286	1163	1910				

PACKER RECORD

SHOOTING RECORD

Size	Depth Set	Type Packer	Date	Type Explosive	Amount	DEPTH		Volume Before Cu. Ft.	Volume After Cu. Ft.
						Top	Bottom		

VOLUME AND PRESSURE

Date	Reading in Inches	Liquid	Size Orifice	Volume	Sand	PRESSURE IN MIN.					24 Hour R. P.	Max. R. P.	Hours
						1	5	10	30	60			

TOTAL INITIAL OPEN FLOW

No gas to test

CUBIC FEET PER 24 HOURS

FORMATION	TOP	BOTTOM	THICKNESS	Remarks
Waynesburg Coal	610	615	5'	286' of 10" casing (original pipe) left in hole
Mapletown Coal	820	825	5'	not disturbed and not cemented. Run 1163' of
Pittsburgh Coal	921	931	7'	8 5/8" casing, 8 rd thd. SM. J55. 21# on steel
Maxton Sand	1918	1962	44'	shoe set at 1116'. Cemented between 8" and 10"
Total Depth		1960		with 350 bags cement and 2 bags aquagel. Good
Bottom of 8 5/8" casing		1116		return to surface of cement. Run 1910' of 7"
Bottom of 7" casing		1919		casing, 8 rd thd. SM. J55. 20# on steel shoe
				set at 1919'. Cemented with 250 bags cement and
				2 bags aquagel between 7" and 8" casing. Good
				return of cement to surface.

RECEIVED
Office of Oil and Gas

JUL 30 2018

WV Department of
Environmental Protection

Examined above information and measurements and found to be correct by

Examined and Approved by

E. B. Mulvaney

Contractor

W. A. Lightner

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 name, with steel line 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.

08/24/2018

3522

Division _____ Company _____
 Record of Well No. _____ on _____ Farm _____ Acres _____
 Field _____ District _____ County _____ State _____
 Rig Commenced _____ 19 _____ Completed _____ 19
 Drilling Commenced _____ 19 _____ Completed _____ 19
 Cost per Foot _____ Contractor _____ Address _____
 Drillers' Names _____

BOILER			ENGINE			RIG			
H.P.	No.	Name of Maker	H.P.	No.	Name of Maker	New	Old	Height	Name of Boiler

CONDUCTOR AND CASING USED IN DRILLING									
Conductor	13 inch	10 inch	8 1/4 inch	6 3/4 inch	6 1/2 inch	5 3/4 inch	5 1/2 inch	5 inch	4 inch

CONDUCTOR AND CASING LEFT IN WELL									
Conductor	13 inch	10 inch	8 1/4 inch	6 3/4 inch	6 1/2 inch	5 3/4 inch	5 1/2 inch	5 inch	4 inch

OIL WELL				GAS WELL						
When Shot	Size of Torpedo	1st Day's Production	Tubing	Rods	Tanks	Size of Packer	Depth Set	Packed with	1st Minute Pressure	Rock Pressure

FORMATION	Cubic Feet Per 24 Hours			REMARKS
	Initial Open Flow Production	Shut in Pressure	Rock Pressure	
	Top	Bottom	Thickness	
	SHEET # 2			
Slate soft	1110	1120	10	
Murphy Sand hard	1120	1135	15	
Red rock soft	1135	1155	20	
Lime hard	1155	1175	20	
Slate soft	1175	1205	30	
Red rock soft	1205	1230	25	
Lime hard	1230	1265	35	
Slate soft	1265	1280	15	
Slate soft	1280	1305	25	
Little Dunkard sand hard	1305	1325	20	
Red rock soft	1325	1335	10	
Lime hard	1335	1370	35	
Slate soft	1370	1425	55	
Big Dunkard sand hard	1425	1430	5	
Slate soft	1430	1475	45	
Gritty lime hard	1475	1500	25	
Slate soft	1500	1520	20	
Coal soft	1520	1525	5	
Slate soft	1525	1540	15	
Lime hard	1540	1550	10	
Slate & Shells	1550	1600	50	
Lime hard	1600	1625	25	
Slate soft	1625	1660	35	
Lime hard	1660	1665	5	
Slate soft	1665	1700	35	
Lime hard	1700	1740	40	
Slate soft	1740	1800	60	

Examined above information and measurements and found to be correct by _____
 _____ Contractor _____ Superintendent of Co.

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 rods must be given by their proper name, with steel line 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.
 Make no memoranda of boiler and engine if owned by contractor.

NO. 4
 APPROVED BY

 HARRY B. ...

RECEIVED
 Office of Oil and Gas
 JUL 30 2018
 WV Department of
 Environmental Protection

3522

Division _____ Company _____

Record of Well No. _____ on _____ District _____ Farm _____ Acres _____
 Field _____ Township _____ County _____ State _____

Rig Commenced _____ 10 _____ Completed _____ 19
 Drilling Commenced _____ 19 _____ Completed _____ 19

Cost per Foot _____ Contractor _____ Address _____

Drillers' Names _____

BOILER			ENGINE				RIG		
H.P.	No.	Name of Maker	H.P.	No.	Name of Maker	New	Old	Weight	Name of Buick
CONDUCTOR AND CASING USED IN DRILLING									
Conductor	13 inch	10 inch	8 1/2 inch	6 3/4 inch	6 1/2 inch	5 3/4 inch	5 1/2 inch	3 inch	4 inch
CONDUCTOR AND CASING LEFT IN WELL									
Conductor	13 inch	10 inch	8 1/2 inch	6 3/4 inch	6 1/2 inch	5 3/4 inch	5 1/2 inch	3 inch	4 inch

OIL WELL			GAS WELL							
When Shot	Size of Torpedo	1st Day's Production	Tubing	Rods	Tanks	Size of Packer	Depth Set	Packed with	1st Minute Pressure	Rock Pressure
Initial Open Flow Production										

FORMATION	Cubic Feet Per 24 Hours		Shut In Pressure	REMARKS
	Top	Bottom		
SHEET 3 of 3				
Salt Sand ✓ Hard	1612	1837	25	
Slate soft	1637	1908	71	
Sand hard	1908	1985	77	Gas at 1923, S.L. 33/10 W. in 2" 180,000 Cu F
Slate soft	1985	2000	15	
Maxon Sand ✓ ✓	2000	2025	25	S.L. 2008' Gas 2002' & 2010-2015 34/10 Water 2" Opening or 182,844 Cu Ft.
Pencil Cave ✓ ✓	2025	2030	5	
Big Lime ✓ ✓	2030	2091	61	
Rig Injun Sand ✓ ✓	2091	2217	126	Gas at 2103' test 29/10 Water in 3"
Total Depth	2217			Total for Maxon & Injun Sands. 375,000 Cu Ft.

Salt Sand 180,000
 Maxon 183,000
 Big Injun 192,000
 555,000

Hardy
 HARDY

RECEIVED
 Office of Oil and Gas
 JUL 30 2018
 WV Department of
 Environmental Protection

Examined above information and measurements and found to be correct by _____ Examinated and approved by _____
 Contractor _____ Superintendent of Co. _____

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 name, with steel line 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.

Make no memoranda of boiler and engine if owned by contractor.

4705100056W

The Manufacturers Light & Heat Company

Division # 1
 Record of Well No. 3522 on E.B. Vaughn Farm 80 Acres
Cameron Field Liberty District Marshall County W. Va. State
 Rig Commenced 3/23/36 19 , Completed 3/28/36 19
 Drilling Commenced 4/15/36 19 , Completed 6/9/36 19
 Cost per Foot 1.60 Contractor O.H. Fox Address Cameron, West Virginia.
 Drillers' Names Frank Santee, Joe Moose, Andrew Workman.

BOILER			ENGINE			RIG			
H.P.	No.	Name of Maker	H. P.	No.	Name of Maker	New	Old	Height	Name of Boiler
							Old	81'	Company men.
CONDUCTOR AND CASING USED IN DRILLING									
Conductor	13 inch	10 inch	8 3/4 inch	6 3/4 inch	6 3/4 inch	5 3/4 inch	5 3/4 inch	5 inch	4 inch
16'		286'-6"	1140'-11"	2077'-11"					
CONDUCTOR AND CASING LEFT IN WELL									
Conductor	13 inch	10 inch	8 3/4 inch	6 3/4 inch	6 3/4 inch	5 3/4 inch	5 3/4 inch	5 inch	4 inch
16'		286'-6"	1140'-11"	2077'-11"					
OIL WELL					GAS WELL				
When Shut	Size of Torpedo	1st Day's Production	Tubing	Rods	Tanks	Size of Packer	Depth Set	Packed with	1st Minute Pressure
						8 1/2" x 6 5/8"	2973'		180'
Initial Open Flow Production			Cubic Feet Per 24 Hours		Shut In Pressure		Cubic Feet Per 24 Hours		

FORMATION	Top	Bottom	Thickness	REMARKS
Clay	0	10	10	
Lime	10	40	30	
Slate	40	80	40	Little water
Lime	80	125	45	
Gritty Lime	125	140	15	
Slate	140	200	60	
Sand	200	225	25	
Slate	225	240	15	
Lime	240	275	35	
Sand	275	300	25	
Lime	300	350	50	
Slate	350	400	50	
Slate & shells	400	450	50	
Gritty Lime	450	475	25	
Slate	475	500	25	
Lime	500	610	110	
Waynesburg Coal	610	615	5	
Lime	615	820	205	
Mapletown Coal	820	825	5	
Lime	825	930	105	
Pittsburgh Coal	930	935	5	1/2 barrel water @ 935
Lime	935	980	45	
Red rock	980	995	15	
Slate	995	1025	30	
Red rock	1025	1033	8	
Lime	1033	1062	29	
Red rock	1062	1085	23	
Lime	1085	1110	25	

RECEIVED
 Office of Oil and Gas
 JUL 30 2018
 WV Department of
 Environmental Protection

No. 4
 APPROVED BY
 HARRY H. HARRIS
 FIELD SUPT.

Examined above information and measurements and found to be correct by O.H. Fox Contractor
 Examined and approved by _____ Superintendent of Co.
 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 name, with steel line 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.
 Make no memoranda of boiler and engine if owned by contractor.

08/24/2018

47-056-00056W

The Manufacturers Light & Heat Company
 800 Union Trust Bldg., Pittsburgh, Pa.

COMPLETION DATA SHEET
 NO. 2
 FORMATION RECORD

Well No. 3522
 E. N. Vaughn farm

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Clay		Soft		0	10	10		
Lime		Hard		10	10	0		
Slate		Soft	Water @ 80'	10	10	0		
Lime		Hard		10	10	0		
Gritty Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Sand		Soft		10	10	0		
Slate		Soft		10	10	0		
Lime & sand		Hard		10	10	0		
Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Slate & shells		Soft		10	10	0		
Gritty Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Lime		Hard		10	10	0		
Waynesburg Coal	Black	Soft		10	10	0		
Lime		Hard		10	10	0		
Mapletown coal	Black	Soft		10	10	0		
Lime		Hard		10	10	0		
Pitts. Coal	Black	Soft	Water @ 935'	10	10	0		
Lime		Hard		10	10	0		
Red rock	Red	Soft		10	10	0		
Slate		Soft		10	10	0		
Red rock	Red	Soft		10	10	0		
Lime		Hard		10	10	0		
Red rock	Red	Soft		10	10	0		
Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Murphy sand		Hard		10	10	0		
Red rock	Red	Soft		10	10	0		
Lime		Hard		10	10	0		
Slate	Dark	Soft		10	10	0		
Red rock	Red	Soft		10	10	0		
Lime		Hard		10	10	0		
Slate	Gray & dark	Soft		10	10	0		
Little Dunkard	Red	Hard		10	10	0		
Red rock	Red	Soft		10	10	0		
Lime		Hard		10	10	0		
Slate	Dark	Soft		10	10	0		
Big Dunkard		Hard		10	10	0		
Slate		Soft		10	10	0		
Gritty Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Coal		Soft		10	10	0		
Slate		Soft		10	10	0		
Lime		Hard		10	10	0		
Slate & shells		Soft & hard		10	10	0		
Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Lime		Hard		10	10	0		
Slate		Soft		10	10	0		
Salt sand		Hard		10	10	0		
Slate		Soft		10	10	0		
Sand		Hard		10	10	0		
Slate		Soft		10	10	0		
Maron sand		Hard		10	10	0		
Poncell Cave		Soft		10	10	0		
Big Lime		Hard		10	10	0		
Big Injia sand		Hard		10	10	0		

Well was not shot at _____ feet; well was shot at _____ feet.
 Fresh water at _____ feet; fresh water at _____ feet.

Well was producing hole.
 THE MANUFACTURERS LIGHT & HEAT COMPANY,
 Approved _____ Owner _____ Land Department.



NOTE: All bottom formations must be noted as indicated above and all key-rocks and all oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

RECEIVED
Office of Oil and Gas

WW-2A
(Rev. 6-14)

JUL 30 2018

WV Department of
Environmental Protection

1.) Date: 6/5/2018
2.) Operator's Well Number Victory B 3522
State 47- County 051 Permit 00056
3.) API Well No.:

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

4) Surface Owner(s) to be served:
(a) Name Donald & Joyce Romack /
Address 290 Gillmer Rd
Leavittsburg, OH 44430
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector James Nicholson
Address PO Box 44
Moundsville, WV 26041
Telephone 304-552-3874
5) (a) Coal Operator
Name McElroy Coal Company /
Address 1000 Consol Energy Dr
Canonsburg, PA 15317
(b) Coal Owner(s) with Declaration
Name Consolidated Coal / OK
Address 1000 Consol Energy Dr
Canonsburg, PA 15317
(c) Coal Lessee with Declaration
Name McElroy Coal Company /
Address 1000 Consol Energy Dr
Canonsburg, PA 15317

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

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

X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

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

- Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

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

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

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



Well Operator: Columbia Gas Transmission, LLC
By: James E. Amos / James E. Amos
Its: Senior Engineer
Address: 48 Columbia Gas Rd
Sandville, WV 25275
Telephone: 304-373-2412
Email: james_amos@transcanada.com

Subscribed and sworn before me this 13th day of July, 2018
Michael D. McClung / 6/19/2022 Notary Public

My Commission Expires
Oil and Gas Privacy Notice

WW-2A1
(Rev. 1/11)

Operator's Well Number Victory B 3522

**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
W. R. Vaught, et al	Columbia Gas Transmission, LLC	Storage Lease 3196871-000	529 / 306

**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:

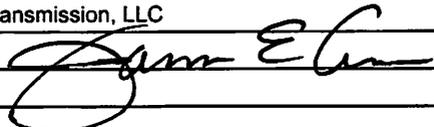
- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

RECEIVED
Office of Oil and Gas

JUL 30 2018

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: Columbia Gas Transmission, LLC
By: Its: James E. Amos
Senior Engineer 

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

Operator Name Columbia Gas Transmission, LLC OP Code 307032

Watershed (HUC 10) Laurel Run of Fish Creek Quadrangle Littleton, WV

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

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

RECEIVED
Office of Oil and Gas

JUL 30 2018

WV Department of
Environmental Protection

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

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

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

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

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

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

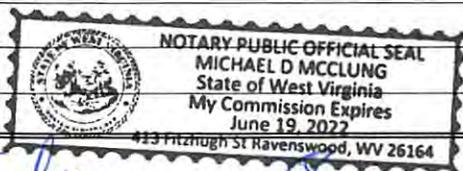
-Landfill or offsite name/permit number? if needed: Rumpke Beech Hollow Landfill - Wellston, OH

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

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

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

Company Official Signature [Signature]
Company Official (Typed Name) James E. Amos
Company Official Title Senior Well Services Engineer



Subscribed and sworn before me this 13th day of July, 2018
[Signature] Notary Public

My commission expires 6/19/2022

08/24/2018

Proposed Revegetation Treatment: Acres Disturbed < 1.0 Prevegetation pH 6

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 10-10-10

Fertilizer amount 600 lbs/acre

Mulch straw @ 2 for permanent (@ 3 for temporary) 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

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: _____

RECEIVED
Office of Oil and Gas

JUL 30 2018

WV Department of
Environmental Protection

Title: Oil & Gas Inspector

Date: 7/26/18

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, LLCWatershed (HUC 10): Laurel Run of Fish CreekQuad: Littleton, WVFarm Name: W. R. Vaughn (WV DEP records indicate Vaughn, E. N.)

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

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubrications will be stored on site, but located within secondary containment.

Spills from construction equipment and well treatment fluids is the only source of contaminate to groundwater.

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

All construction and well servicing equipment will be monitored and inspected daily for leaks. Fluid pumping well service equipment will have secondary containment under all leak paths. Spill kits will be on site.

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

No discharges planned. Laurel Run is approximately 690 ft to the SW.

PWSID WV9925016 ZPC Covestro (FKA Bayer Material) intersects protection area. Refer to enclosed SWAP Protection Area letter dated 2/16/18 from the Dept of Health and Human Resources.

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

N/A

RECEIVED
Office of Oil and Gas

JUL 30 2018

WV Department of
Environmental Protection

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

08/24/2018

N/A

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

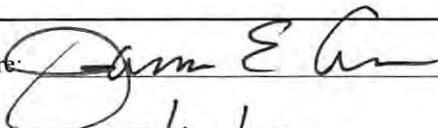
No waste material will be used for deicing or fill material on the property.

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

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

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

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubrications will be stored on site, but located within secondary containment. Construction and well servicing equipment will be monitored and inspected daily for leaks or spill.

Signature: 
Date: 7/12/18

RECEIVED
Office of Oil and Gas

JUL 30 2018

WV Department of
Environmental Protection

08/24/2018



STATE OF WEST VIRGINIA
DEPARTMENT OF HEALTH AND HUMAN RESOURCES
 Bureau for Public Health

Bill J. Crouch
 Cabinet Secretary

Office of Environmental Health Services

Rahul Gupta, MD, MPH, MBA, FACP
 Commissioner
 State Health Officer

February 16, 2018

William Timmermeyer
 TransCanada -Columbia Pipeline Group
 1700 MacCorkle Ave., SE
 Charleston, WV 25314

Re: WV DEP SWAP Info Request
Protection Areas for 8 wells
 Randolph/Preston/Marshall Counties,

Dear Mr. Timmermeyer:

This is a response to the informational request dated February 15, 2018 concerning protection areas near eight wells.

Based on the current information, we have found the following:

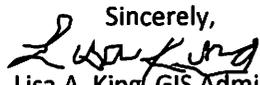
Well	PA PWSID	PA Type	System Name	County	Note
Glady 7455	WV9942049	ZPC	USFS Middle Mountain Cabins HP	Randolph	Distance 1 mile, does not intersect any PA
Glady 7459					Out of WV State
Terra Alta South 7500	WV3303908	ZPC	Kingwood Water Board Primary	Preston	Intersects Protection Area
Victory B 2265	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
	WV3304803	ZPC	Sistersville Municipal Water	Marshall	Intersects Protection Area
Victory B 2345	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
	WV3304803	ZPC	Sistersville Municipal Water	Marshall	Intersects Protection Area
Victory B 2589	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
Victory B 3522	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
Victory B 4502	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Distance 250 feet, does not intersect any PA

I hope the information provided helps you with the completion of your project. If you have any questions, please do not hesitate to contact me at (304) 356-4309.

RECEIVED
 Office of Oil and Gas

JUL 30 2018

WV Department of
 Environmental Protection

Sincerely,

 Lisa A. King, GIS Administrator
 Source Water Assessment and Protection

CC: William J. Toome

RECEIVED
Office of Oil and Gas
JUL 30 2018
WV Department of
Environmental Protection



WV DEP Reclamation Plan (siting detail)

Victory B well 3522

- Existing road surface and culverts to be maintained
- BMPs to be utilized per WV DEP guidelines

Limits of Disturbance

- minor grading and application of crush limestone to provide stabilization for equipment



JUL 30 2018

RECEIVED
Office of Oil and Gas



WV DEP Reclamation Plan (overview)

Victory B well 3522

- Existing road surface and culverts to be maintained
- BMPs to be utilized per WV DEP guidelines

Google Earth

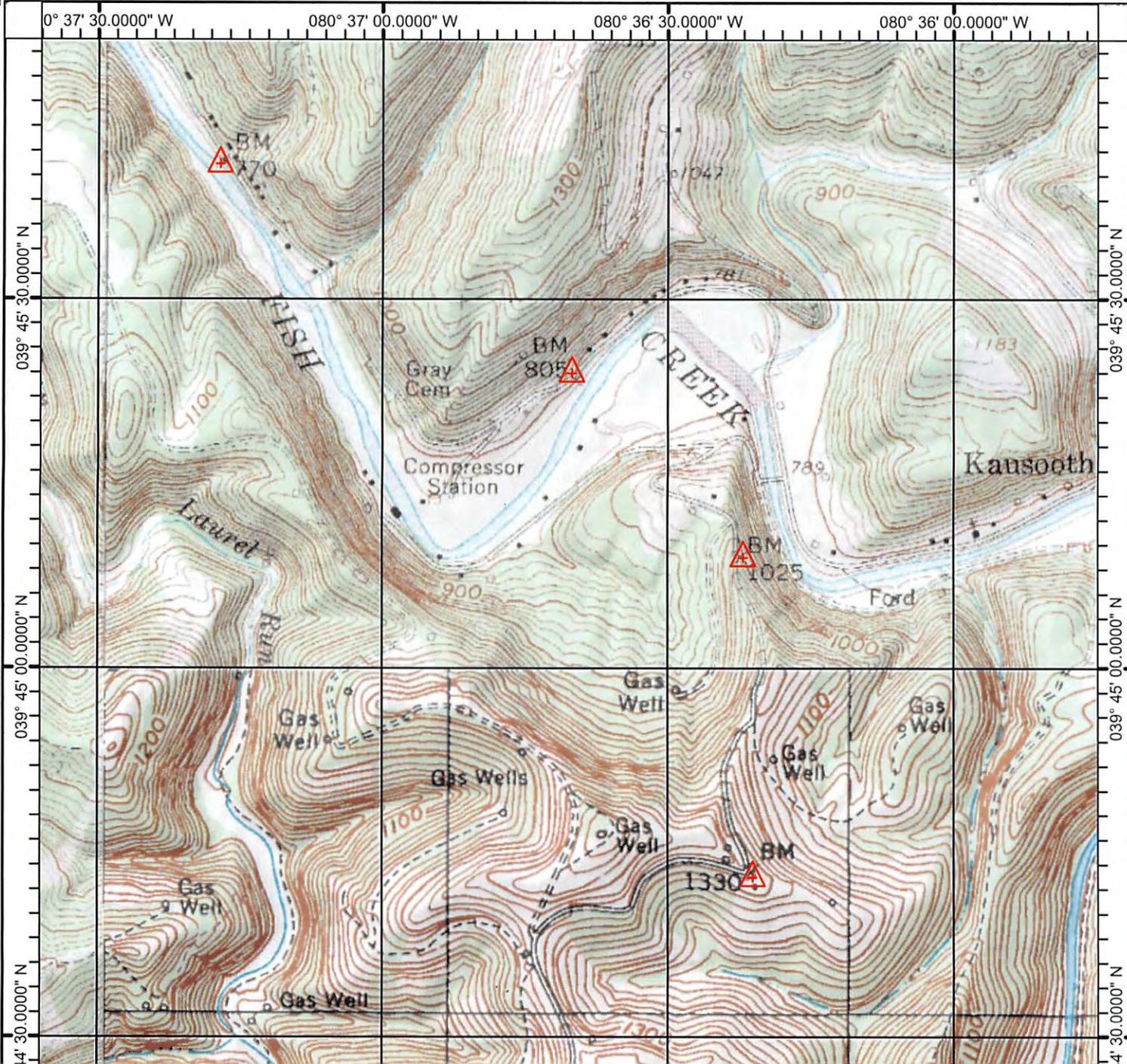


47-051-00056W

080° 37' 36.1225" W
039° 45' 51.0360" N

(Outdoor Contour Map)

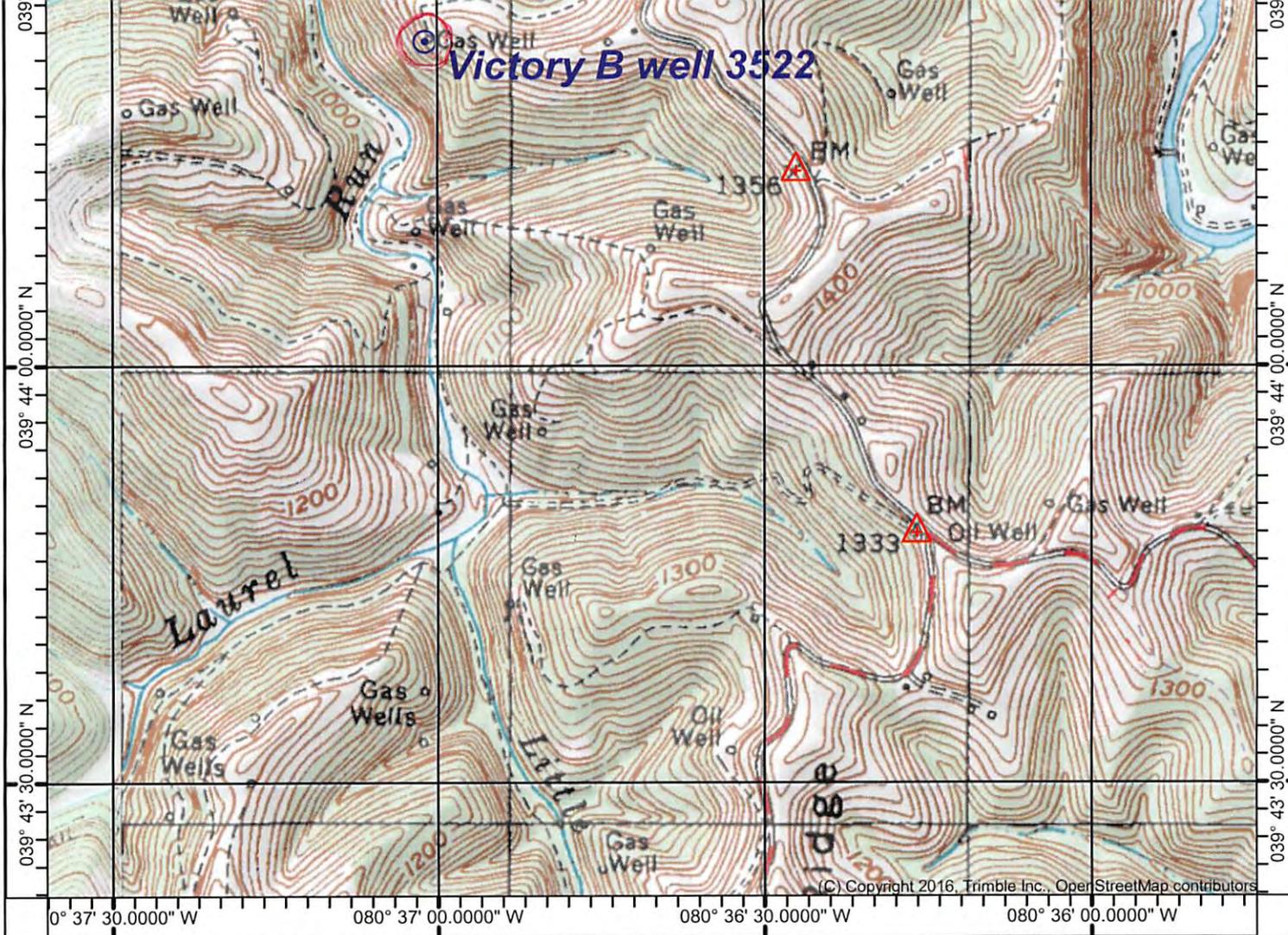
080° 35' 44.4398" W
039° 45' 51.0360" N



(Outdoor Contour Map)

(Outdoor Contour Map)

RECEIVED
Office of Oil and Gas
JUL 30 2018
WV Department of
Environmental Protection



(C) Copyright 2016, Trimble Inc., OpenStreetMap contributors

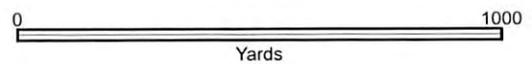
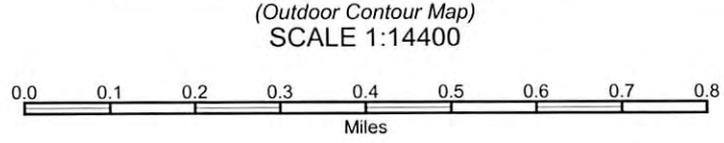
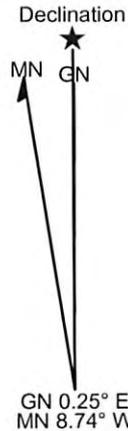
039° 43' 21.5047" N
080° 37' 36.1225" W
039° 43' 30.0000" N
080° 37' 00.0000" W
080° 36' 30.0000" W
080° 36' 00.0000" W
039° 43' 21.5047" N
080° 35' 44.4398" W

(Outdoor Contour Map)

(Outdoor Contour Map)

Produced by Trimble Terrain Navigator Pro
Topography based on USGS variable Maps
North American 1983 Datum (NAD83)

To place on the predicted North American 1927 move the
projection lines 9M N and 17M E

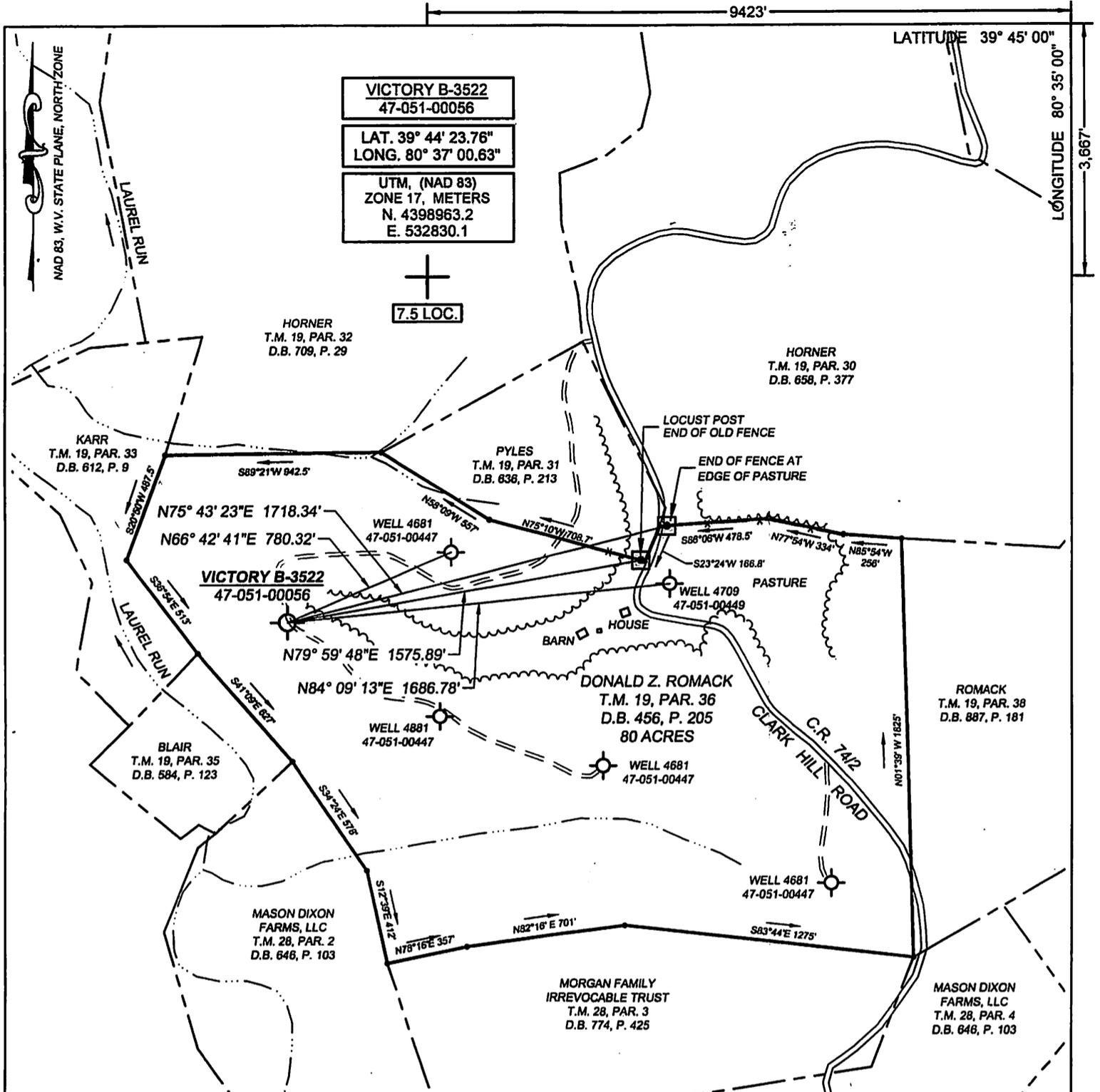


(Outdoor Contour Map)
SCALE 1:14400

CONTOUR INTERVAL UNKNOWN FT

N/A
LITTLETON, WV
UNKNOWN

A7-051-00056W



VICTORY B-3522
47-051-00056

LAT. 39° 44' 23.76"
LONG. 80° 37' 00.63"

UTM, (NAD 83)
ZONE 17, METERS
N. 4398963.2
E. 532830.1

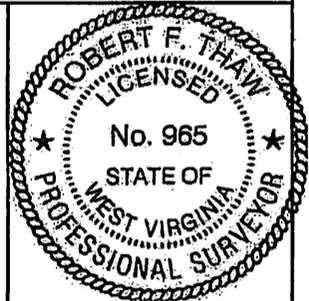
7.5 LOC.

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

FILE No 1701-2345-001-027
DRAWING No. VICTORY B-3522
SCALE 1"=600'
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.F. Thaw
ROBERT F. THAW PS #965



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

DATE MAY 15 2018
OPERATOR'S WELL No. 3522
API WELL No. 47 051 - 00056W

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

LOCATION: ELEVATION 1234.0 WATER SHED LAUREL RUN OF FISH CREEK
DISTRICT LIBERTY COUNTY MARSHALL
QUADRANGLE LITTLETON, WV

SURFACE OWNER DONALD Z. ROMACK ACREAGE 80
OIL & GAS ROYALTY OWNER W.R. VAUGHN, ET AL
LEASE ACREAGE 80 LEASE No. 3196871-000

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

TARGET FORMATION MAXTON ESTIMATED DEPTH 1960

WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT JAMES AMOS
ADDRESS PO BOX 1273, CHARLESTON, WV ADDRESS P.O. BOX 1273, CHARLESTON W.V.
25325-1273 25325-1273

08/24/2018