

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES OIL AND GAS DIVISION

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL

To THE DEPARTMENT OF MINES, Charleston, W. Va.		
None	United Fuel Gas Co.	
COAL OPERATOR OR COAL OWNER	c/o G. H. Moore	
	P. O. Box 1273, Charleston	25. W. Va
ADDRESS	COMPLETE ADDRESS	
	In 1999 1999 1999	10
COAL OPERATOR OR COAL OWNER	January 19,	
COAL OF ENATOR OR COAL OTHER	PROPOSED LOCATION	
	Grant	District
ADDRESS		
United Fuel Gas Co.	Wayne	County
P.O. Box 1273 OWNER OF MINERAL RIGHTS	Well No. 6476 38° 05'	
charleston 25. W.Va.	Well No. Ott 82 /3	
ADDRESS	United Fuel Gas Co.	<u> </u>
GENTLEMEN:	Mineral Tract No. 1	Farm
The undersigned well operator is entitled to d	heeh	
oil and gas, having fee title thereto, (or as the case i	may be) under goars of lease dated	
December 26, 1946 , made b	y Huntington Dev. & Gas Co.	, to
United Fuel Gas Co.	, and recorded on the	27th day
December, 1946	, and recorded on the	uay
of December, 1946 , ir Book 234 , page 318 .	the office of the County Clerk for said	I County in
The enclosed plat was prepared by a competent		
Industrial land marks. The undersigned well operator is informed and of coal beneath said farm or tract of land on which saries of the same, who have mapped their workings coal operators or coal owners (if any) above named as the above named coal operators or coal owners (desire to make to such proposed location, or which the the drilling of a well at said proposed location will cau coal mines, must be received by, or filed with the Depart a copy of this notice and accompanying plat by said that forms for use in making such objections will be no request and that all such objections must set forth a grounds on which such objections are based and indicate the moved to overcome same.	aid well is located, or within 500 feet of and filed their maps as required by law, es addressees. if any) are notified that any objection by are required to make by Section 3 of some a dangerous condition in or about the sement of Mines within ten* days from the department. Said coal operators are further furnished to them by the Department of Mines definitely as is reasonably possible the	s they may aid Code, if ir respective her notified hes promptly
(The next paragraph is to be completed only	in Department's copy.)	
Copies of this notice and the enclosed plat were	mailed by registered mail, or delivered t	o the above
named coal operators or coal owners at their above slor on the same day with the mailing or delivery of West Virginia.	hown respective address dathis copy to the Department of Mines at	before, Charleston,
Very to	ruly yours,	
	United Fuel Gas Co.	
327737420	WELL OPERATOR	
MILLEUS TO SESSION	c/o G. H. Moore	
Address]	STREET	
JAN Well Operator	P. O. Box 1273, Charleston	25.
Well Operator)	CITY OR TOWN 11	/17/2023
E amon 3	West Virginia	
CO Marine	STATE	
*Section 3 If no such objections be filed or be ten days from the receipt of said notice and plat by the depment shall forthwith issue to the well operator a drilling phave been made by the coal operators to the location, or approved and the well operator authorized to proceed to d	ermit of mines, to said proposed location ermit reciting the filing of such plat, that	, the depart-

WAY-653

PERMIT NUMBER

January 31, 1949

United Fuel Gas Company c.o G. H. Moore Box 1273 Charleston, West Virginia

Gentlemen:

Enclosed is permit WAY-653 to drill Well No. 6476 on the United Fuel Gas Company Mineral Tract No. 1, Grant District, Wayne County.

Very truly y urs,

Administrative Assistant OIL AND GAS DIVISION

Chill: K Encl-2

CC: Inspector D. E. Lawson

Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate Brown Shale Berea Sand Slate & Shel Brown Shale White Slate Brown Shale White Shale Brown Shale	ls		2280 2383 2405 2453 2480 2543 2905 3115 3150	2383 2405 2453 2480 2543 2905 3115 3150 3425	2896-3420		V 1" 33 M Gelatin from : 5/10 W 2" 94
Total Depth			34251				Injun & Shale
THE STATE	42-		To the	300	20 Hr. R.P.	375#	
True oberse			20 C C C C C C C C C C C C C C C C C C C		Shut in 5-2	3-50 in 7" G	asing.
TOTAL			40 mm				
orton				21/2 21/2 44/8	16/15 b 2	**************************************	
en ni redi	A TOPA	- 100 mm		al Street	40.16.4.14	S outsi	procession of the contract of
70	343°			AND		1.348 1.58	THE RELATION
1 TON 16	-20 -30			Tomas Confi		1 ha	postern system
	1 100	Tallo organ			73.77	73.23 (10) 73.2 (10) -34.786	
	* (1777)	The property of the property o	TOTAL	gars gars rangerage		AND THE RESERVE OF THE PERSON	TANKS A
			BASINT .	e COu		11/1	7/2023

Date August 8, 19 50

APPROVED United Fuel Gas Co. , Owner

By Chief Engineer (Title)





Wayne

STATE OF WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION

WELL RECORD

Permit No. WAY-653 Gas Oil or Gas Well United Fuel Gas Co. Company_ Left in Well Casing and Tubing Used in Drilling Packers Address P. O. Box 1273, Charleston 25, W. Va. Farm U.F.G. Co. Min. Tr. #1 Size Location (waters) Ridge Head of Grassy Branch Kind of Packer_ 16_ Well No. 6476 Elev. 1243.821 13___ District Grant _County_ Wayne 141-7" 141-711 Size of_ The surface of tract is owned in fee by_ 5671 5671 84 8-5/8 Address 1751' 1751' 7" Depth set_ Mineral rights are owned by United Fuel Gas Co. 5 3/16_ P. O. Box 1273, Address Chas. 25, W. Va. Drilling commenced 3-3-50 Perf. top_ Drilling completed 5-13-50 Perf. bottom_ Date Shot 5-22-50 From 2896 то 3420 Perf. top_ Liners Used With 3600# Gelatin Perf. bottom_ 5/10ths Water in 2" Inch Open Flow SIZE No. Ft. Date /10ths Merc. in__ CASING CEMENTED__ Inch 94M- Injun & Shale _Cu. Ft. 20 Rock Pressure 375 _lbs. hrs. COAL WAS ENCOUNTERED AT 328 FEET 48 INCHES ___bbls., 1st 24 hrs. Oil INCHES FEET INCHES Fresh water 280, 760, FEET_ feet feet

Salt water 120	06,	feet	feet	FEF	ETINCH	ESFEE	TINCHES
Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface Sand Slate Sand Coal Slate Sand Slate Sand Slate Sand			0 7 60 170 260 270 328 332 380 410 415	7 60 170 260 270 328 332 380 410 415 455	Water	2801	
Slate Sand Lime Shells Slate & Shell Sand Slate Sand Slate Sand Slate Sand	lls		455 487 556 570 735 762 808 836 865 908	487 556 570 735 762 808 836 865 908	Water	7601	
Slate & She Salt Sand Slate Sand Slate Sand Slate Sand Slate Sand	W234561	9 10 11 12 13 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	1005 1064 1072 1092 1101 1444 1454 1462 1470	1064 1072 1092 1101 1444 1454 1462 1470 1606	Water Gas Gas	1206' 1005' 1330'	Hole full
Little Lime Pencil Cave Big Lime Red Rock Injun Sand Slate & She Lime Shells	lls	STS SLASSING	1606 1638 1641 1812 1830 1870 2268	1638 1641 1812 1830 1870 2268 2280	Injun Gas Injun Gas	1841' 1854'	8/10 W 1" 30M 4/10 W 2" 84M

UNITED FUEL GAS COMPANY

ERIAL WELL NO. 6476 LEASE NO. 24689 MAP SQUARE 24-39 RECORD OF WELL NO. 6476 CASING AND TUBING on the TEST BEFORE SHOT G Co. Min. Tr. # Larm of 38448 co3 SIZE WEIGHT DRILLING MELL IN in Grant District 10" 32.75# 1410" 1410" /10 of Merc, in----inc 8-5/8" County Wayne 24# 5671011 Volume 33.33 MCF Cu. 6710" 711 769 1811 769 1811 State of: West Virginia 20# TEST AFTER SHOT Field: Branchland 5 /10 of Water in ___ 2" __ inc Rig Commenced By Contractor 19 /10 of Merc, in inc Rig Completed By Contractor 19 Volume 94 MCF ... Cu. f Drilling Commenced March 3. 19 50 Hours After She Drilling Completed May 13, 19 50 Rock Pressure 48 hrs 375 Drilling to cost \$2.75 per foot Date Shot 5/22/50 Contractor is: Priddy & Meabon Size of Torpedo 3600# GAL Address: Huntington, W. Va. SHUT IN Oil Flowed bbls. 1st 24 hr Date May 23, 1950 Oil Pumped bbls. 1st 24 hr Kubingse Casing Driller's Name Frank Mixer J. W. Priddy Size of Packer 7"X85/8"X10 Well abandoned and W. A. Shepherd Kind of Packer Bottom Hol Plugged 1st, Perf. Set_Nonefrom___ Elevation: 1243.82 2nd Perf. Set ...-from. DRILLER'S RECORD FORMATION TOP BOTTOM THICKNESS REMARKS Surface 0 7 7 Sand 7 60 53 Slate 60 170 110 Sand 170 260 90 Slate 260 270 10 Sand 270 328 58 Water at 2801 Coal 328 332 4 Slate 332 380 48 Sand 380 410 30 Slate 410 415 5 Sand 415 455 40 APPROVED Slate 455 487 32 M. E. Lebon Sand 487 556 69 Lime Shell 556 570 14 Slate & Shells 570 735 165

762

808

27

46

Water at 760

735

762

Sand

Slate

		DRILL	ER'S RECORD	
FORMATION	ТОР	воттой	THICKNESS	HEMARKS
and	808	836	28	
late	836	865	29	
and	865	908	43	
late & Shells	908	1005	97	
alt Sand	1005	1064	59	Show of Gas at 1005'
Slate	1064	1072	8	
and	1072	1092	20	
ilate	1092	1101	9	
Sand	1101	1444	343	Hole full water at 1206
Slate	1444	1454	10	Show of gas at 1330'
Sand	1454	1462	8	
late	1462	1470	8	
Sand	11,70	1606	136	
Little Lime	1606	1638	32	
Pencil Cave	1638	1641	3	
Big Lime	1641	1812	171	7" OD Casing Point 1751
Red Rock	1812	1830	18	
Injun Sand	1830	1870	40	Gas 184 1'- 8/10 W-1"
Slate & Shells	1870	2268	398	Gas 1854'- 4/10 W-2"- blew down 2/10 W-2"
Lime Shell	2268	2280	12	2/10 W=2"
Slate	2280	2383	103	
rown Shale	2383	2405	55	
erea Sand	2405	2453	48	
Slate & Shells	2453	2480	27	
rown Shale	2480	2543	63	60
White Slate	2543	2905	362	
rown Shale	2905	3115	210	The state of the s
White Slate	3115	3150	35	
rown Shale	3150	3425	275	3,3,2
otal Depth	3425			
				APPROVED
				N. E. Gibran

Devontan Shale-2453' to 3425'
Total Shale -972'

no sand logged no electric log Mary S. Friend Leologist.

11/17/2023

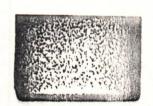
~~~	22		
2.4	22,	19	50

A PROPERTY.	
124	
A NEW Y	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Mr. J. R. Hu	ssay, Divs. Supt.	** ********* **** *** *** ***	
Well No. 6476	( Serial No. ) on U.F.G.	Co.Min.T	r.#1 Farm
Was shot this date w	vith 3600# Du Pont	Gelatin	quart
Number of Shells	54 Shells		eminima the alphabe april m. s. c. s.c. m. seco. Alba tes.
Length of Shells	4-1/4" X 10'6"		
Top of Shot	28961		NAME AND DESCRIPTION OF THE PARTY OF THE PAR
Bottom of Shot	34201	1 40 to 1	
Top of	White Slate (Name of Sand)	Sand	2896 r feet
Bottom of	Brown Shale (Name of Sand)	Sand	3420 feet
	34251		
Results: Test be	efore shot- 10/10	W-1" (33.	33 MCF)
Test af	ter shot- 5/10 V	N-2" (94	MCF)
Remarks: (See	Purchase Order No.	21171	5/25/50)
THEOEIVE			
JUL 14 1950			
	ed N. E. Liba	Low	*
		***************	District Sunt

NOTE-When a well is shot this form must be filled out and sent to the General Superintendent.







#### U.S. DEPARTMENT OF ENERGY Federal Energy Regulatory Commission Washington, D.C. 20426

## PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA) (Sections 102, 103, 107 and 108)

#### PLEASE READ BEFORE COMPLETING THIS FORM:

#### General Instructions:

Remarks:

Complete this form if you are applying for price classification under sections 102, 103, 107 or 108 of the NGPA. A separate application is required for each well. If any reservoir qualifies for a category which differs from the category applicable to the producing well, separate applications must be made for the producing well and the reservoir. Complete each appropriate item on the reverse side of this page. The code numbers used in items 4.0 and 6.0 can be obtained from the Buyer/Seller Code Book. If there is more than one purchaser or contract, identify the additional information in the space below. Enter any additional remarks in the space below.

Submit the completed application to the appropriate Jurisdictional Agency as listed in title 18 of the CFR, part 274.501. If there are any questions, call (202) 275-4539.

#### Specific Instructions for Item 2.0, Type of Determination: Section of NGPA Category Code Description 102 1 New OCS Lease 102 2 New onshore well (2.5 mile test) New onshore well (1,000 feet deeper test) 102 3 102 4 New onshore reservoir 102 5 New reservoir on old OCS Lease 103 New onshore production well 107 High cost natural gas Stripper well Other Purchasers/Contracts: Contract Date Purchaser Buyer Code (Mo. Day Yr.)

FT7900806/1-2

1.0 API well number. (If not assigned, leave blank 14 digits.)	47-0	99-0065	3-			
Type of determination being sought (Use the codes found on the front of this form.)	107 Section o	DV	Category Code			
3.0 Depth of the deepest completion location. (Only needed if sections 103 or 107 in 2.0 above.)		3425	_feet			
4.0 Name, address and code number of applicant (35 letters per line maximum. If code number not available, leave blank.)	Name	oia Gas Tra Box 1273 eston	nsmission (	WV State	25325 <b>ZID CODE</b>	004030 Seller Code
5 0 Location of this well. [Complete (a) or (b).] (a) For onshore wells. (35 letters maximum for field name.)	Field Nan Way		vea B		WU State	
(b) For OCS wells	Area Nam	Date of Lea		Bloc OCS Lease	ck Number	
(c) Name and identification number of this well (35 letters and digits maximum.)	Teo	Min. Tr.	No. 1	806-	476	
(d) If code 4 or 5 in 2.0 above, name of the reservoir (35 letters maximum.)	1	NA				
6.0 (a) Name and code number of the purchaser (35 letters and digits maximum. If code number not available, leave blank.)	Name	*		807		004030 Buyer Code
(b) Date of the contract:			Mo. Day	* Yr.		
(c) Estimated total annual production from the well			7		Million Cu	bic Feet
		(a) Base Price	(b) Tax	(c) All ( Prices ( (+) or (	Indicate	(d) Total of (a), (b) and (c)
7.0 Contract price (As of filing date. Complete to 3 decimal places.)	S/MMBTU					
8.0 Maximum lawfu! rate (As of filing date. Complete to 3 decimal places.)	S'MMBTU	Dezeg				
9.0 Person responsible for this application:  Agency Use Only  Date Received by Juris. Agency  JUN 3 - 1982  Date Received by FERC	Signature  Signature  Date App	H. Mathena  H. M. M.  M. M.  M. Complete  No. contract	athenw (3	304) 346 Phone	5-0951 Number	

Date 5-20 -82-

DEPARTMENT OF MINES OIL AND GAS DIVISION

Operator's
Well No. 806476

API Well No.

47 - 099 -00653 State County Permit

# WELL CLASSIFICATION FORM HIGH COST GAS WELL - DEVONIAN SHALE NGPA Section 107

NGPA Se	ction 107
	DESTGNATED AGENT James L. Weekley
	ADDRESS P. O. Box 1273
	Charleston, WV 25325
	LOCATION Elevation 1243.82'
WELL OPERATOR Columbia Gas Trans. Corp.	Watershed
ADDRESS P. O. Box 1273	Dist Stonewall County Wayne Quad.
Charleston, WV 25325	Gas Purchase Contract No. N.A.
.GAS PURCHASER N.A. ADDRESS	Meter Chart Code
	Date of Contract NA
This is a pipeline production well and no o	Jas purchase contract exists.
Date surface drilling began: 3-3-	1950
Indicate the bottom hole pressure of the	
*0*	word and explain now this was calculated.
See Supplement	
	TIDAVIT
report described in subparagraph (3)(i) or (3)(ii) of potentially disqualifying non-shale for percent of the gross Devonian are interested.	index of less than 0.7 if a Gamma Ray log )(A) has been filed, or as indicated by the
STATE OF WEST VIRGINIA	
COUNTY OF KANAWHA , TO-WIT:	
I, Larry G. Burdette , a Notary	Public in and for the state and county
aforesaid, do certify that Albert H. Mathen	, whose name is signed to
acknowledged the same before me, in my coun	ty aforesaid. 1982, has
Given under my hand and official seal this	20 day of May, 1982.
My term of office expires on the 13 day	of August , 1989 .
	So GR man
(NOTARIAL SEAL)	Notary Public Public

#### STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date <u>5-20</u>, 1982 Operator's 806476

API Well No. 47 - 099 - 00653 State County Permit

#### STATE APPLICATION FOR WELL CLASSIFICATION

Previous File No. (If Applicable)

			(If Applicable
WELL OPERATOR Columbia Gas Trans. Co	rp. DESIGNATED AGE	James	L. Weekley
ADDRESS P. O. Box 1273	ADDRESS	P. 0.	Box 1273
Charleston, WV 25325		Charl	eston, WV 25325
Gas Purchase Contract No. NA*	and Date	•	
Meter Chart Code	(Month, day	and year)	
Name of First Purchaser NA*			
(\$6	reet or P. O. Box)		
(City)	(State)	(Zip Code)	7
FERC Seller Code NA*	FERC Buyer Cod	de NA*	
TYPE OF DETERMINATION BEING SOUGHT:	107	~!/	
(1) Initial determination (See FERC F	000000000000000000000000000000000000000	PA	Category Code
recovery technology.  (3) Determination of a seasonally affi	ected well.		Director,
	Albert H. Mat	thena, Jr.	Production Engineering
*This wall is a mineline production		nathena 9	litte
*This well is a pipeline production and no gas purchase contract exist	+c		
	P. O. Box 127 Street or P. O.		
	Charleston		25325
	804) 346-095		ip Code)
		Number	
(Certificate of Proof of Service to Purcha			
A copy of this filing is being retowner and operator of the identifi		as Transmis	sion Corporation,
(All of the above to be completed by the	perator/Applicant)		
(To be completed by Jurisdictional Agency purchaser, if known).	Executed copy to be rea	turned to Ope	rator/Applicant and
The Department of Mines has well as meeting the requirements of Section (NGPA): lor for determination that incounder Section 108 of (NGPA); or for determination or for	received a request, for under the seased production is the stermination of a seasonal	or certificat: the Natural Garesult of enhally affected to	ion of the above described as Policy Act of 1978, anced recovery technology well under Section 108 of (NG
All interested parties are hereby the office of the Oil and Gas Division in be heard there will be a public hearing, it	y notified that on the Charleston, West VirginI f requested, or if object	day of s, or as soon tion is filed	thereafter as it may, at
This Application is assigned Fil	e No.		
Initial review of information so entitled to certification as claimed under and any additional evidence will be made a as the matter may be heard.	the Natural Gas Policy	Act (NGPA).	A review of this evidence
Unless objections are timely fit days, a hearing will not be held except or go to determination.	ed or a request for a head ex parte motion of the	aring is made department an	within fifteen (15) d the matter will
	WEST VIRGINIA DE	PARTMENT OF M	INES
			11
JUN 3 - 1983	Supply control from the supply	- Joje	eofor /
	Ву	111	THO
Date received by Jurisdictional Agency	Title		11/17/2023

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# State of West Virginia Department of Mines Oil and Gas Sivision Charleston 25305

WALTER N MILLER DIRECTOR THEODORE M. STREIT ADMINISTRATOR

OF THE DEPARTMENT OF MINES
OF THE STATE OF WEST VIRGINIA

IN THE MATTER OF THE APPLICATIONS OF COLUMBIA GAS TRANSMISSION CORPORATION REQUESTING CLASSI-FICATION UNDER SECTION 107 OF THE NATURAL GAS POLICY ACT OF CERTAIN WELLS IN BOONE, CABELL, JACKSON, KANAWHA, LINCOLN, LOGAN, MINGO AND WAYNE COUNTIES, WEST VIRGINIA.

CAUSE NO. 33

ORDER NO. 1

#### REPORT OF THE OFFICE

This cause came before the Administrator of the Office of Oil and Gas on June 28, 1982, at 1:00 p.m., in Conference Room C, Capitol Conference Center, Charleston, West Virginia, after giving notice of hearing as required by law on the applications of Columbia Gas Transmission Corporation for certification of certain wells in Boone, Cabell, Jackson, Kanawha, Lincoln, Logan, Mingo and Wayne Counties as Devonian Shale wells under Section 107(c)(4) of the Natural Gas Policy Act.

#### FINDINGS OF FACT

- 1. Applicant is an operator within the meaning of paragraph (w) of Chapter 22-4-1.
  - 2. Applicant has made filings for certification pursuant to Rule 34.04.
- 3. The Natural Gas Policy Act (NGPA) in Section 107, Ceiling Price For High-Cost Natural Gas--(c) Definition of High-Cost Natural Gas-- "For purposes of this section, the term "high-cost natural gas" means natural gas determined in accordance with Section 503 to be...(4) produced from Devonian Shale."
- 4. The Federal Energy Regulatory Commission (FERC) by Rule 272.101-(c) prescribes the method by which the jurisdictional agency may determine gas produced from Devonian Shale.
- 5. Exhibits refer to evidence gathered at a public hearing held June 28, 1982.

- 6. Exhibits No. 2 and 3 lists the wells to be under consideration for Section 107 pricing. All these wells are located on Exhibits No. 4 and 5 and have been completed in the Devonian Shale.
- 7. Applicant, by letter dated June 25, 1982 (Exhibit No. 3) requested that eight (8) of the wells listed on Attachment A be stricken from the docket for hearing and they have been withdrawn.
- 8. Exhibit No. 6 shows random sampling of already qualified Devonian Shale wells.
- 9. Various cross-sections throughout the interval show gamma ray logs of the wells (see Exhibits Nos. 7, 8 and 9).
- 10. No well has any non-shale greater than 5% in the Devonian interval penetrated.
- 11. No gamma ray logs are available on these wells since they were all drilled before logging was common in West Virginia.

#### CONCLUSION OF LAW

- 1. That due notice of the time, place and purpose of the hearing has been given in all respects as required by law.
- 2. That pursuant to Chapter 22, Article 4, Code of West Virginia of 1931, as amended, the Office has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

#### ORDER

NOW, therefore, based on the aforementioned Findings of Fact and Conclusion of Law, it is found by the Administrator that Columbia Gas Transmission Corporation's applications for classification under Section 107 of the Natural Gas Policy Act for certain wells in Boone, Cabell, Jackson, Kanawha, Lincoln, Logan, Mingo and Wayne Counties, identified in Attachment A, are approved.

The Office of Oil and Gas further incorporates the Report of the Office and Findings of Fact and Conclusion of Law dated June 28, 1982, as if the same were fully set forth and includes hereto the Report of the Office and Findings of Fact and Conclusion of Law as a part of this Order.

Entered this 12th day of July, 1983.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

OFFICE OF OIL AND GAS
OF THE DEPARTMENT OF MINES
OF THE STATE OF WEST VIRGINIA

Theodore M. Streit, Administrate

COLUMBIA GAS TRANSMISSION CORPORATION

WELL NO. 806476

SUPPLEMENT:

METHOD OF CALCULATION OF BOTTOM HOLE PRESSURE PBH = PWH + PWH ( E**0.0000347*G*L - 1.)

WHERE:

PBH = BOTTOM HOLE PRESSURE (PSIA)

PWH = WELLHEAD PRESSURE (PSIA)

G = SPECIFIC GRAVITY OF GAS

= 0.7170

= 389.7

L = DEPTH TO MIDDLE OF PERFORATIONS (FT.) = 3158

STEPS:

PBH = 389.7 + 389.7 (E**0.0000347*2264.286 -1.)

PBH = 389.7 + 389.7 (E**0.078571 -1.)

PBH = 389.7 + 389.7 ( 1.08174 -1.)

PBH = 389.7 + 389.7 ( 0.082)

31.9

389.7 +

PBH =

PBH = 421.6 (PSIA)