

*Janice 1/8/97*

LATITUDE 38°40'00"

POCAHONTAS CO GREENBANK DIST

RANDOLPH CO DRY FORK DIST

UNITED STATES OF AMERICA DEPARTMENT OF INTERIOR

All Waters Shown of West Fork of Greenbrier River

1828.67 AC PORTION OF THE TOTAL 1964 AC OF TRACT 29 WITHIN GOVERNMENT P 52 SHOWN ON TAX MAP 3 & BEING P 4 TAX MAP 1 6595 AC

GAS WELL #7466 (POC-32)

GAS WELL #7454 (POC-25)

GAS WELL #7465 (POC-31)

TR 28

MOUNTAIN

*0.70 50695 0.90W*

TR 27

TR 30

GAS WELL #7464 (POC-30)

GAS WELL #7461 (POC-11)

GAS WELL #8770 (POC-12)

TM 4 P 1 905 AC TR 33

LYNN KNOB

MONONGAHELA

GAS WELL #7477 (POC-39)

Corner 14, FS Standard Conc Post Marked B-1926

GAS WELL #7456 (POC-26)

TR 31

State By Fallen Beech, Cherry Pointier

NATIONAL

GAS WELL #7476 (POC-33)

TR 28

PT of TR 34 1852 AC

GAS WELL #7463 (POC-29)

1852 AC OR TR 32 WITHIN GOVERNMENT P 34

MIDDLE

FOREST

GAS WELL #7469 (POC-4)

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (1/2")

NOTES: This Map is For Well Location Only & Does Not Represent A Complete Property Survey. No Dwellings Or Surface Coal Operations Within 2000'.

REF: INV 4280N/608E

Farm map # P23-501

FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 2000'  
MINIMUM DEGREE OF ACCURACY 1/200  
PROVEN SOURCE OF ELEVATION Top of Concrete  
Pod of Well No 7461 0.80'  
Above Ground Elev 3387.84

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 DEPARTMENT OF ENERGY.

(SIGNED) Edward Nichols  
R.P.E. \_\_\_\_\_ L.L.S. 798

PLACE SEAL HERE

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL & GAS  
#10 McJUNKIN ROAD  
NITRO, WEST VIRGINIA 25143-2506



DATE November 15, 1996  
OPERATOR'S WELL NO. 7463  
API WELL NO. \_\_\_\_\_

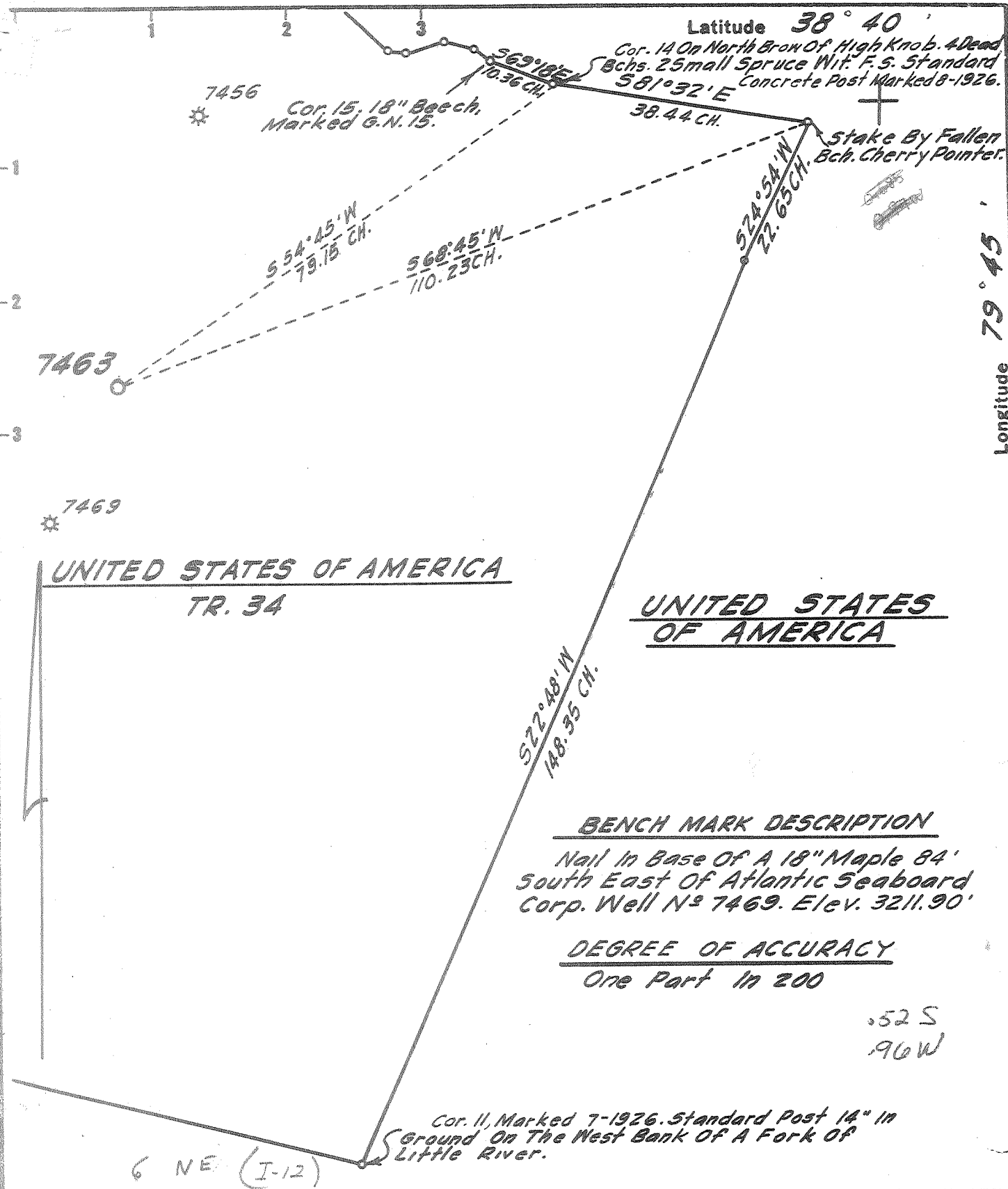
WELL TYPE: OIL \_\_\_\_\_ GAS X LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
(IF "GAS," ) PRODUCTION \_\_\_\_\_ STORAGE X DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_  
LOCATION: ELEVATION 3517' WATER SHED West Fork of Greenbrier River  
DISTRICT Greenbank COUNTY Pocahontas  
QUADRANGLE Wildell, WV COORDINATES LAT: 38°39'24" LONG: 79°46'28"  
SURFACE OWNER United States of America Dept of Interior ACREAGE 1852 ±  
OIL & GAS ROYALTY OWNER USA Dept of Interior LEASE ACREAGE 48,212.33  
COAL OWNER \_\_\_\_\_ LEASE NO. 90700

PROPOSED WORK: DRILL \_\_\_\_\_ CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Storage Recondition

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
TARGET FORMATION Oriskany ESTIMATED DEPTH 6,206'  
WELL OPERATOR COLUMBIA GAS TRANSMISSION CORP DESIGNATED AGENT RICHARD L COTY  
ADDRESS PO Box 1273, Charleston, WV 25325-1273 ADDRESS PO Box 1273, Charleston, WV 25325-1273

JAN 21 1997

POCAHONTAS COUNTY NAME PERMIT 29



**BENCH MARK DESCRIPTION**  
 Nail In Base Of A 18" Maple 84'  
 South East Of Atlantic Seaboard  
 Corp. Well No 7469. Elev. 3211.90'

**DEGREE OF ACCURACY**  
 One Part In 200

52 S  
 96 W

- Fracture Before 6/5/27
- New Location
- Drill Deeper
- Redrill
- Abandonment

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by Paragraph 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.  
 The accuracy of this survey is within the limits and as prescribed in paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.  
**PROVEN ELEVATION 3211.90'**

Company ATLANTIC SEABOARD CORP.  
 Address CHARLESTON, W. VA.  
 Farm UNITED STATES OF AMERICA  
 Tract 34 Acres 1852 BLM-A-022926 Lease No. A3-700  
 Well (Farm) No. \_\_\_\_\_ Serial No. 7463  
 Elevation (Spirit Level) 3516.68'  
 Quadrangle DURBIN - EC  
 County POCAHONTAS District GREEN BANK  
 Engineer Seybert R. Sherrill  
 Engineer's Registration No. 2529  
 File No. 162-79 Drawing No. \_\_\_\_\_  
 Date JAN. 19, 1966 Scale 1" = 1320'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. POC-29

- + Denotes location of well on United States Topographic Maps, scale 1 to 62,500. latitude and longitude lines being represented by border lines as shown.
- Denotes one inch spaces on border line of original tracing.

Deep Well Drilling Storage 9-0 261

Deep Well



7-12-66  
LWS

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

- Rotary
- Slider
- Table Tools
- Storage

WELL RECORD

Oil or Gas Well Gas Storage  
(KIND)

Quadrangle Durbin

Permit No. POC.29

Company Atlantic Seaboard Corporation  
 Address P.O. Box 1273 Charleston, W. Va. 25325  
 Farm U.S.A. Dept. of Interior Tr. #34 Acres 48,212.33  
 Location (waters) Mill Run & Gertrude Run  
 Well No. X-77-7463 Elev. 3516.68'  
 District Green Bank County Pocahontas  
 The surface of tract is owned in fee by \_\_\_\_\_  
 Address \_\_\_\_\_  
 Mineral rights are owned by U.S. Geological Survey  
3218 General Services Bldg. Address Washington, D. C. 20242

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13 3/8" 41'	Cemented with 40 sacks		
10			Size of
9-5/8" 1346'	Cemented with 4		420 cu. ft. Litepoz
7" 5993'	Cemented with 200		Depth set
5 3/16	200 cu. ft. Litepoz		
3			Perf. top
2 3/8"		6173'	Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Drilling commenced 4-5-66  
 Drilling completed 5-3-66  
 Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 With \_\_\_\_\_  
 Open Flow 14/10ths Water in \_\_\_\_\_ Inch  
4" Inch  
 Volume 2,316 M - Oriskany Cu. Ft.  
 Rock Pressure 915 lbs. \_\_\_\_\_ hrs.  
 Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
 WELL ACIDIZED (DETAILS) \_\_\_\_\_  
 WELL FRACTURED (DETAILS) \_\_\_\_\_

Attach copy of cementing record.  
 CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
 Amount of cement used (bags) \_\_\_\_\_  
 Name of Service Co. \_\_\_\_\_  
 COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.)

ROCK PRESSURE AFTER TREATMENT \_\_\_\_\_ HOURS  
 Fresh Water 475 Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
 Producing Sand \_\_\_\_\_ Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand & Shale			0	455	Fresh Water	475'	
Sand			455	850			
Sand & Shale			850	1345	Show gas	6012'	
Sand			1345	1590			
Sand & Shale			1590	2000	Gas	6072' estimated 250 Mcf	
Shale			2000	2228			
Sand			2228	2705	Gas	6120-6125'	
Sand & Shale			2705	3280			
Sand			3280	3450	All gas test	2,144 M when drilling completed.	
Sand & Shale			3450	4100			
Shale			4100	5475			
Tully Lime			5475	5500	E		
Marcellus Shale			5500	5794	Test before acidized	12/10 Merc. 4"	
Onondaga Lime			5794	5841	2,144 M		
Chert			5841	5953	Acidized 5-16-66 with 10,000 gallons		
Needmore Shale			5953	5984	15% HCL acid, 10,000 gallons 7 1/2%		
Oriskany Sand			5984	6167	HCL, 4,000 gallons water overflush with		
Helderberg Lime			6167		with 243,710 standard cu.ft. nitrogen		
Total Depth			6181'		Test after acidized - 14/10 Merc. 4"		
					2,316 M		
					FINAL OPEN FLOW- 2,316 M - Oriskany		
					R.P. 915#		
					Shut in 5-19-66 in 2-3/8" tubing.		

5794 5984 6167  
 3517 3517 3517  
 2277 2467 2650

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

075-0029-W

1) Well Operator: COLUMBIA GAS TRANSMISSION CORPORATION

2) Operator's Well Number: Glady Stg # 7463 (API 47-075-00029) 3) Elevation: 3,516.68 feet

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

10450 (2) 680

Issued 01/13/97  
Expires 01/13/99

5) Proposed Target Formation (s): Oriskany 475

6) Proposed Total Depth: 6,206 (drill deeper 25 feet) feet

7) Approximate fresh water strata depths: 475'

8) Approximate salt water strata depths: 1200' (approx.)

9) Approximate coal seam depths: NONE

10) Does land contain coal seams tributary to active mine? Yes  / No  /

11) Proposed Well Work: Columbia proposes to kill the well with a fresh water based polymer mud system. Remove the existing tubing. Reconfigure the existing wellhead and test the casing. Clean the hole out to the original TD and drill an additional 25 feet of pocket for logging purposes. Log the well with cased and open hole logs. The well will be acidized or fractured across the Oriskany section as determined by the well logs. Clean up well, flow tested & place back in service.

12) CASING AND TUBING PROGRAM

RECEIVED  
WV Division of  
Environmental Protection  
DEC 27 1996  
Permitting  
Office of Oil & Gas

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill - up (cu. ft.)
conductor	13-3/8"	unknown	48#	41'	41'	40 sks
Fresh Water	9-5/8"	unknown	32.30#	1346'	1346'	420 cu ft litepoz 100 cu ft neat
Coal						
Intermediate						
Production	7"	J-55 & N-80	23#	5993'	5993'	200 cu ft litepoz 60 cu ft cealment
Tubing	2-3/8"	(TO BE RETIRED)	4.7#	6173'	6173'	
Liners						

PACKERS: Kind None  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only  
 Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP Agent  
 Plat  WW-2B  Bond Blanket (Type)

23051

00117160

DEC 27 1996  
Permitting  
Office of Oil & Gas

- 1) Date: 10/24/96
- 2) Operator's well number GLADY WELL 7463
- 3) API Well No: 47 - 075 - 00029 -F  
State - County - Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION 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 United States Forest Service  
Address Monongahela National Forest  
P. O. Box 1548, Elkins, WV 26241
  - b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator :
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (b) Coal Owner (s) with Declaration  
Name United States Dept. Of Interior, Bureau Of Land Mgt.  
Address P.O. Box 631  
Milwaukee, WI 53201-0631 Attn: Tim Abing
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Phillip Tracy  
Address Route 2, Box 37-A  
Montrose, WV 26283  
Telephone (304) - 636-8798

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

     Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

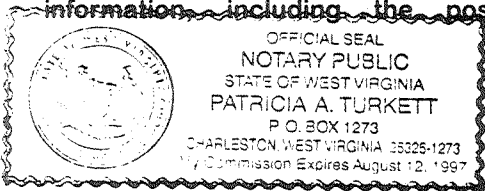
I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through      on the above named parties, by:

- 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 38 CSR 11-18, 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.

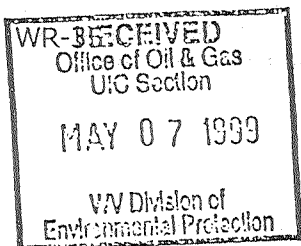
I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator COLUMBIA GAS TRANSMISSION CORP.  
By: W.H. Foraker  
Its: Senior Storage Engineer / Well Services  
Address Route 3, Box 216  
Elkins, WV 26241

Telephone 304/636-8129  
Subscribed and sworn before me this 4th day of November, 19 96

Patricia A. Turbett Notary Public  
My commission expires August 12, 1997



08-Jan-97  
API # 47- 075-00029-F

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Reviewed MS

Well Operator's Report of Well Work

Farm name: U. S. FOREST SERVICE Operator Well No.: GLADY 7463

LOCATION: Elevation: 3,817.00 Quadrangle: WILDELL

District: GREENBANK County: POCAHONTAS  
Latitude: 3,650 Feet South of 38 Deg. 40 Min. 0 Sec.  
Longitude: 4,775 Feet West of 79 Deg. 45 Min. 0 Sec.

Company: COLUMBIA GAS TRANSMISSION  
P.O. BOX 1273  
CHARLESTON, WV 25325-1273

Agent: RICHARD L. COTY  
Inspector: CRAIG DUCKWORTH  
Permit Issued: 01/13/97  
Well work Commenced: 07/23/97  
Well work Completed: 10/06/97  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary Cable Rig  
Total Depth (feet) 6,181'  
Fresh water depths (ft) See Original Records  
Salt water depths (ft) See Previous  
Is coal being mined in area (Y/N) ? N  
Coal Depths (ft) : See Previous

Casing & Up Tubing Size	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
PULLED & RETIRED 6,173' of 2-3/8"	4.7 lb/ft	JU-55	EUE Tubing
STIMULATION; SEE BACK FOR DETAILS			

OPEN FLOW DATA

Producing formation ORISKANY Pay zone depth (ft) 5,984' - 6,167'  
Gas : Initial open flow 14,264 MCF/d Oil : Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 4,763 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 436 Days Hours  
Static rock Pressure 1990 psig (surface pressure) after 1 Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas : Initial open flow \_\_\_\_\_ MCF/d Oil : Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: COLUMBIA GAS TRANSMISSION CORP.

By: William H. Foraker  
Date: May 4, 1999

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

**STIMULATION**

- Acidized on 10-02-97
- Halliburton Foamed Acid Job.
- Pre-flush with 4,032 gals equivalent 15% Halliburton 75 Quality FE Foamed Acid followed by 11,886 gals equivalent 75 Quality Foam.
- Treated with 250 gals 28% Halliburton FE Acid followed by 11,970 gals equivalent 20% Halliburton 75 Quality FE Foamed Acid followed by 11,424 gals equivalent 15% Halliburton 75 Quality FE Foamed Acid. Flushed with 13,986 gals equivalent 60 quality foam and 840 gals H<sub>2</sub>O.
- Avg. Rate Approx. 9.5 BPM @ 2300 PSIG
- Total acid 4,528 gallons 28% Halliburton FE acid (uncut).
- Total nitrogen 798,000 scf.
- Additives: 45 gals FE-1A; 14 gals-HAI-81; 5 gals-SCA-130; 3 gals-FE5A; 23 gals-IIC2; 18 lbs BA-2.