

CHARGE: Gen-Aux-Activ-Tr Cntr  
103-2000-W2518-2801

NOTES:  
REF: X-77 Storage Field  
No Water Wells Within 2000'  
Inv Map No 42961612  
"BM" Disk In Concrete  
Post On South Side Of Road  
Forks Stamped 103 JEA  
(Atop Middle Mountain  
At Intersection F.S. RTE  
368 & 14 Elev 3421.3')

J.B.R FB 2587 Pg 47-50  
REF: FB 2043 Pg 25  
Farm Map Sq 166 - 91

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2')

FILE NO. \_\_\_\_\_  
DRAWING NO. 7429  
SCALE 1" = 2000'  
MINIMUM DEGREE OF ACCURACY 1/200  
PROVEN SOURCE OF ELEVATION "BM See Note Above"

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) Robert C. Weidner  
R.P.E. \_\_\_\_\_ L.L.S. 819

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



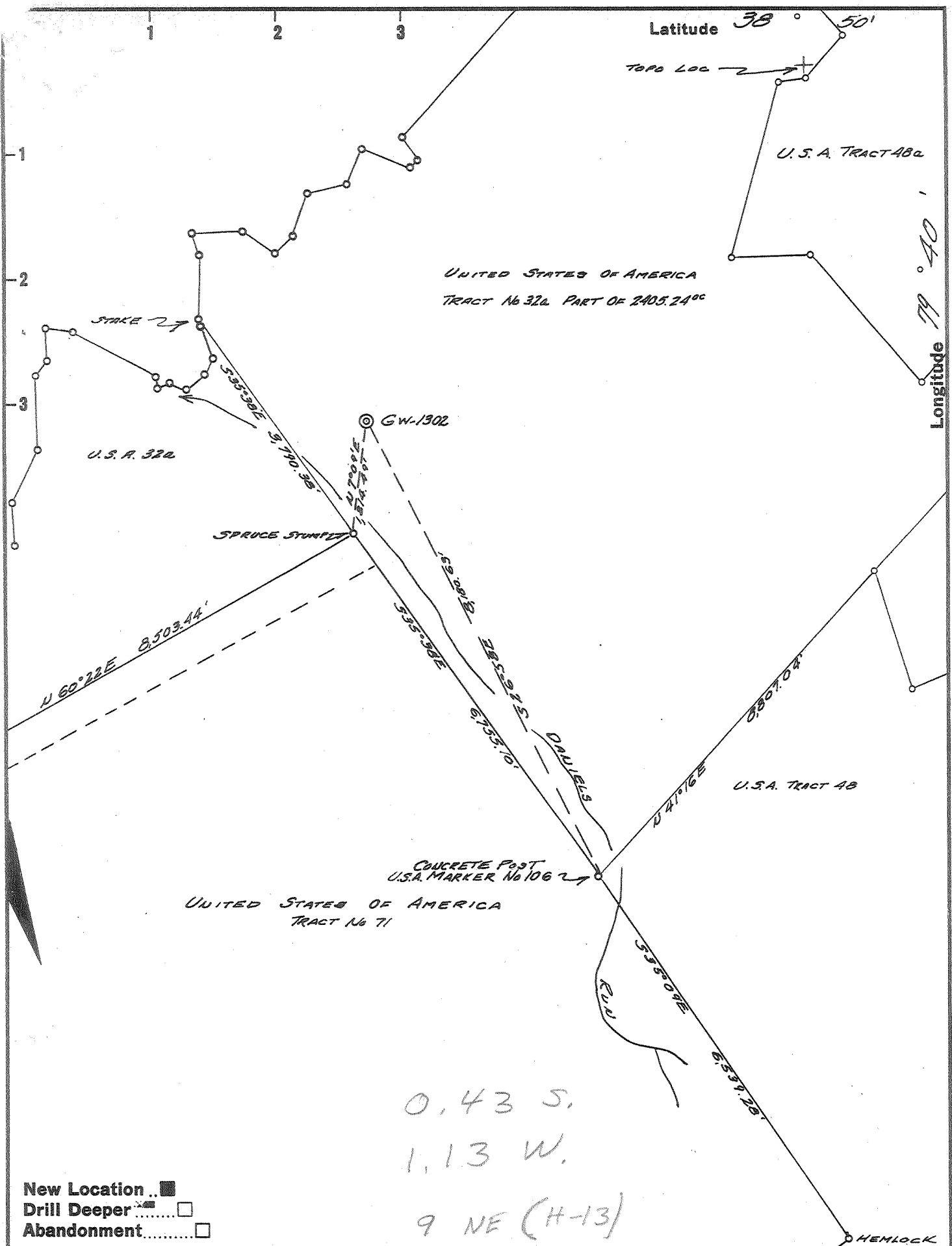
DATE December 2, 1993  
OPERATOR'S WELL NO. 7429  
API WELL NO. \_\_\_\_\_

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
(IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 3154.99' WATER SHED Waters Of Daniels Creek Of Gladys Fork  
DISTRICT Dry Fork COUNTY Randolph  
QUADRANGLE GLADY, WY COORDINATES LAT: 38°49'39" LONG: 79°41'11"  
SURFACE OWNER United States Of America (Fee) Tract No 32-a ACREAGE 2405.24  
OIL & GAS ROYALTY OWNER USA (Fee) Dept Of Interior LEASE ACREAGE 27804.07 (Randolph)  
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 \_\_\_\_\_ ESTIMATED DEPTH \_\_\_\_\_  
WELL OPERATOR COLUMBIA GAS TRANS CORP DESIGNATED AGENT ROBERT C WEIDNER  
ADDRESS PO BOX 1273, CHARLESTON, WV 25325-1273 ADDRESS PO Box 1273, Charleston, WV 25325-1273

JUL 24 1994

RANDOLPH COUNTY NAME PERMIT 00105



New Location    
 Drill Deeper    
 Abandonment

Company	COLUMBIAN CARBON COMPANY
Address	Box 879 CHARLESTON W.VA
Farm	UNITED STATES OF AMERICA
Tract	32a Acres 2405.24 Lease No. RUMA032818
Well (Farm) No.	G-5 Serial No. G.W. 1302
Elevation (Spirit Level)	3154.99
Quadrangle	HORTON 9-5043 W110 - SW
County	RANDOLPH District DRY FORK
Engineer	[Signature]
Engineer's Registration No.	2074
File No.	Drawing No. W-9-59
Date	25 MAR 59 Scale 1"=200'

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

**WELL LOCATION MAP**  
 FILE NO. RAN-105

+ 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.

38-02 1971

samples 19-E (5710-6403) 6-6 20 Deep Well



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION 17

Quadrangle Horton 9 SW

Permit No. Ran-105

WELL RECORD

Oil or Gas Well gas  
(KIND)

Company Columbian Carbon Company, Oper.  
Address Box 873, Charleston 23, W. Va.  
Farm United States of America Acres 600  
Location (waters) Daniels Run  
Well No. G-8, GW-1302 Elev. 3154.99'  
District Dry Fork County Randolph  
The surface of tract is owned in fee by Director, Bureau of Land Management  
Interior Bldg. Address Washington, D. C.  
Mineral rights are owned by same

Drilling commenced 5-5-59  
Drilling completed 7-3-59  
Date Shot not shot From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_

Open Flow /10ths Water in \_\_\_\_\_ Inch  
/10ths Merc. in \_\_\_\_\_ Inch  
Volume \_\_\_\_\_ Cu. Ft.  
Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED not acidized

WELL FRACTURED see reverse side

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer <u>Parmaco</u>
18 3/8" 48#	32'9"	32'9"	Anchor Packer
20 3/4" 32-40#	899'2"	899'2"	Size of <u>3-1/2x5-1/2"</u>
8 3/4"			Depth set <u>5788'</u>
5 3/16"			
3 3/8" 4.7#	6141'4"	6141'4"	Perf. top _____
			Perf. bottom _____
Liners Used			Perf. top _____
5-1/2" 17#	312'	312'	Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_

see reverse side

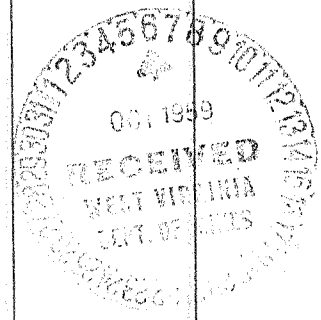
COAL WAS ENCOUNTERED AT 247 FEET 12 INCHES  
\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

RESULT AFTER TREATMENT Chert gas 40/10 M. 3" = 2214= M - Oriskany will not gauge

ROCK PRESSURE AFTER TREATMENT 20 hours Chert 1445# - Oriskany 145#

Fresh Water 165' Feet Salt Water \_\_\_\_\_ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	12			
Sand			12	35			
Red Sand			35	69			
Gray Shale			69	79			
Red Sand			79	120			
Yellow Sand			120	140			
Slate			140	230	F. water	165'	1 blr/hr.
Sand			230	247			
Coal			247	248			
Sand			248	290			
Slate			290	320	5632	5895	6336?
Shale and Siltstone			320	415	3155	3155	3155
Slate			415	500	2477	2749	3181
Siltstone			500	580			
Sand			580	623			
Slate and Shells			623	700			
Siltstone			700	765			
Slate and Shells			765	3500			
Shale and Lime			3500	4400			
Shale			4400	4760			
Shale and Lime			4760	5550			
Lime and Shale			5550	5650			
Lime			5650	5695			
Chert			5695	5745			
Shale			5745	5909			
Oriskany Sand			5909	6336			
Helderburg Lime			6336	6389			



TOTAL DEPTH \_\_\_\_\_ (over) 6389' Landing Flange

Samples 5710 - 6403

Formation	Color	Hard or Soft	Top 17	Bottom	Oil, Gas or Water	Depth Found	Remarks
<u>Fracturing Record</u>							
7-9-59 - Perforated Oriskany 5992-3', 5985-90', 6007-10', 6153-55', 6169-71', 6175-6', 6179-80', 6182-3', 6184-6', 6188-91', 6197-98', 6199-6201', 6204-5', 6208-10', 6211-18', 6220-21', 6238-40', 6280-84', 6305-12' with 4 shots per foot = 211 shots.							
8-19-59 5 day rock pressure on Oriskany 47#. Fractured the Oriskany - used 1,500 gallons MCA-displaced with 2940 gallons water and tergitol. Treated with 17,640 gallons water and tergitol and 19,000# of sand. Used 80 perf balls. Maximum pressure 4600#- final pressure 4400#-10 minutes after shut down 1500#.							
8-24-59 Released packer and pulled tubing.							
8-29-59 Perforated Chert 5691-5766' with 99 shots.							
9-1-59 Ran 3-1/2" tubing, 5-1/2" anchor and set anchor packer at 5785'							
9-3-59 Fractured the Chert. Used 1,000 gallons MCA - displaced with water and Tergitol. Treated with 12,000 gallons water and Tergitol and 12,000# of sand. Maximum pressure 2950#- final pressure 2950#.							
9-8-59 Pulled tubing - gas gauging 1,912 MCF - still wet.							
9-14-59 Ran 2-3/8" tubing, 5-1/2" anchor and Parmaco Anchor Packer set at 5788'. Chert gas gauging 40/10 M. 3" = 2214MCF. Oriskany gas only a show. Will not gauge.							
Final open flow Chert gas 40/10 M. 3" = 2214M - Oriskany gas - show.							
(set Baker bridge plug at 6110' - sealed off all Oriskany except 5985-90', 5992-3' and 6007-10' - making salt water - open flow of upper section - show only.)							
20 hour rock pressure Chert 1445# - Oriskany 145#.							
<u>CASING RECORD</u>							
5-27-59 10-3/4" casing ran at 891' SLM with shoe - cemented with 250 sacks.							
7-5-59 7" casing ran at 6389' Landing Flange with 7" guide shoe, differential fill up collar and 5 centralizers. Cemented with 240 sacks.							

Date October 5, 1959

APPROVED Columbian Carbon Co., Oper., Owner

By W. S. Moore, Mgr. of Prod.  
(Title)

083-0105-Frac.  
Issued 06/21/94  
Page of  
Expires 06/21/96

JUN 16 94

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

19376

- 1) Well Operator: <sup>Permitting</sup> ~~Office of Oil & Gas~~ COLUMBIA GAS TRANSMISSION CORP. 10450 (2) 369
- 2) Operator's Well Number: WELL #7429 3) Elevation: 3154.99
- 4) Well type: (a) Oil \_\_\_ / or Gas X /  
(b) If Gas: Production \_\_\_ / Underground Storage X /  
Deep X / Shallow \_\_\_ /
- 5) ~~XXXXXX~~ EXISTING Formation(s): <sup>475</sup> ORISKAN-CHERT
- 6) ~~XXXXXX~~ EXISTING Total Depth: 6389 feet
- 7) Approximate fresh water strata depths: 165'
- 8) Approximate salt water depths: 1200' (EST.)
- 9) Approximate coal seam depths: 247'-248' (1 T.)
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_ / No X /
- 11) Proposed Well Work: KILL WELL; PULL 2-3/8" TUBING, CLEAN WELL OUT TO ORIGINAL T.D. INSTALL NEW FLANGED 10-3/4"X7"X2-3/8" API 3000 FLANGED WELLEHAD; RUN NEW 2-3/8" UPSET TUBING, MATRIX ACIDIZE WELL TO CLEANUP STORAGE ZONE. (NOTE: A 5-1/2" LINER MAY BE RUN AND CEMENTED AND THE CASING AND TUBING PROGRAM STORAGE ZONE PERFORATED AND STIMULATED)

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	13-3/8"	UNK.	48	33	33	TO SURF.
Fresh Water	10-3/4"	UNK.	32.75 & 40	899	899	250 SKS.
Coal						
Intermediate						
Production	7"	UNK.	23#	6141	6141	240 SKS.
Tubing	2-3/8"	J-55	4.7#		6100	
Liners						

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

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond \_\_\_\_\_  Agent  
 (Type)

CO 352 393

RECEIVED  
WV Department of Energy  
Environmental Protection

JUN 16 94

Permitting  
Office of Oil & Gas

- 1) Date: June 10, 1994
- 2) Operator's well number WELL #7429
- 3) API Well No: 47 - 083 - 00105 - F  
State - County - Permit

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

- 4) Surface Owner(s) to be served:
  - (a) Name U.S. FOREST SERVICE  
Address MONONGAHELA NATIONAL FOREST  
P. O. BOX 1548, ELKINS, WV 26241
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector PHILLIP TRACY  
Address RT. 2, BOX 37A  
MONTROSE, WV 26283  
Telephone (304)- 636-8798

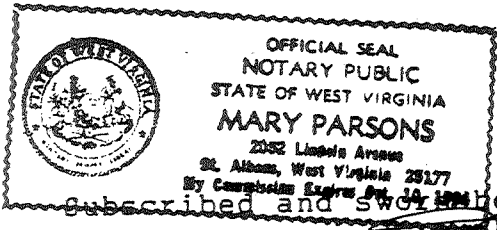
- 5) (a) Coal Operator:
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (b) Coal Owner(s) with Declaration  
Name U.S. DEPT. OF INTERIOR BUREAU OF LAND  
Address P.O. BOX 631 MGT.  
MILWAUKEE, WI 53201-0631  
Name (SENT TO: BUREAU OF LAND MANAGEMENT  
Address FIELD INSPECTION OFFICE, RT. 1, BOX 13  
MARIETTA, OH 45750)
  - (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

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  
 Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)  
 I certify that as required under Chapter 22B 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)  
 Certified Mail (Postmarked postal receipt attached)  
 Publication (Notice of Publication attached)

I have read and understand Chapter 22B 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: [Signature] JUN 10 1994  
 Its: DIRECTOR, DRILLING & MAINTENANCE  
 Address P. O. BOX 1273  
CHARLESTON, WV 25325-1273  
 Telephone (304) 357-2459



Subscribed and sworn to before me this 10th day of June, 1994  
[Signature] Notary Public  
 My commission expires October 10, 1994