

Latitude  $38^{\circ}17'30''$   
 (15)  $38^{\circ}20'$

— BENCH MARK —  
 U.S.G.S. BM. ON SOUTH END OF  
 WEST ABUTMENT OF N.Y.C. R.R.  
 CULVERT OVER BURNING SPRINGS  
 BRANCH. - ELEVATION 612.98'

*4.72 S*  
*115 W*

SCALE 1"=2000'

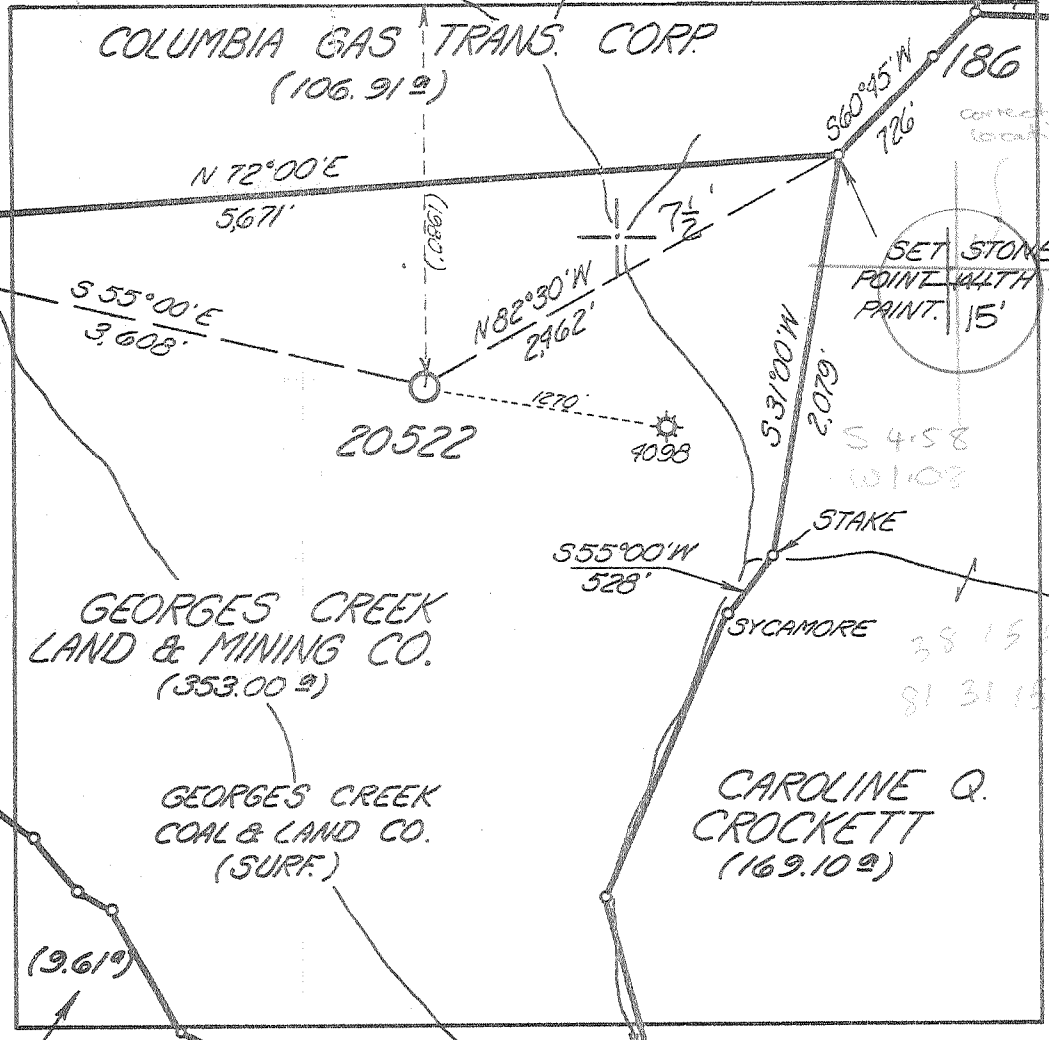
LOT "C"

W<sup>m</sup> TOMPKINS, HRS.  
 (1.38<sup>a</sup>)

COLUMBIA GAS TRANS. CORP.  
 (106.91<sup>a</sup>)

SET STONE ON E  
 OF RIDGE. 4 FEET  
 EAST OF SMALL  
 BLACK OAK.

STAKE ON  
 E OF RIDGE.  
 $S22^{\circ}15'E$   
 419'



GEORGES CREEK  
 LAND & MINING CO.  
 (353.00<sup>a</sup>)

GEORGES CREEK  
 COAL & LAND CO.  
 (SURF.)

CAROLINE Q.  
 CROCKETT  
 (169.10<sup>a</sup>)

L.A. MYERS

Longitude  $81^{\circ}30'00''$

8,900'

53

"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 the rules and regulations of the oil and gas section of the mining laws of WEST VIRGINIA. Minimum degree of accuracy is one part in 200

ENGR. REG. N<sup>o</sup> 2330  
 BOX 1273 CHARLESTON, W.VA.

Signed *[Signature]*

- New Location
- Storage
- Drill Deeper
- Abandonment
- Re-Drill/Fracture

Company COLUMBIA GAS TRANS. CORP.  
 Address BOX 1273 CHARLESTON, W.VA.  
 Farm GEORGES CRK. LAND & MINING CO.  
 Lease PT. 21661 Acres 640<sup>a</sup> UNIT  
 Well Farm No. 17 Ser. No. 20522  
 Elevation - Spirit Level 1989.09 SE  
 Quadrangle CHARLESTON EAST, 7 1/2, 15'  
 Township or District MALDEN  
 County KANAWHA  
 Sec., Lot, Qr. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_  
 Coordinates LAT. 38°16'02" LONG. 81°31'11"  
 File No. 66-53 Dwg. No. \_\_\_\_\_  
 Date 3-11-77 Scale 1"=1000'

WELL LOCATION MAP  
 STATE OF WEST VIRGINIA

(+) Denotes Values of Well On United States Topographic Maps

47-039-3410

Scale 15'  7 1/2'

*Deep Well*  
*6-6 Indian Creek (358) JUN 14 1979*

*TUSCAREVA 10110'*



FEB 13 1980

OIL & GAS DIVISION  
 DEPT. OF MINES  
 State of West Virginia  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

- PDS
- Soudder
- Cable Tools
- Storage

Quadrangle Charleston, East

Permit No. 47-39-3410

WELL RECORD

Oil or Gas Well  Gas   
 (KIND)

Company Columbia Gas Transmission Corp.  
 Address P.O. Box 610 Clendenin, WV 25045  
 Farm Georges Ck. Land & Mining, 640  
 Location (waters) Simmons Creek  
 Well No. 20522 See 1484-D9  
 District Malden County Kanawha

The surface of tract is owned in fee by Georges Ck. Land & Mining Company Address Guilford, Conn.  
 Mineral rights are owned by Georges Ck. Land & Mining Company Address Guilford, Conn.

Drilling commenced June 20, 1979  
 Drilling completed July 16, 1979

Date Shot From To  
 With \_\_\_\_\_

Open Flow /10ths Water in \_\_\_\_\_ inch  
/10ths Merc. in \_\_\_\_\_ inch

Volume \_\_\_\_\_ Ck. Ft.  
 Rock Pressure \_\_\_\_\_ lbs \_\_\_\_\_ psi

Oil \_\_\_\_\_  
 Well Acidized (DETAILS) 1000 gal. 10% HCl

Well Fractured (DETAILS) 812 bbl. well AC. 0009 30/100 Mesh Sand A 12,000 20/40 Mesh Sand

Result After Treatment (Initial open flow or test) 6.6 MCF

Rock Pressure After Treatment 2060 PSI 6000

Fresh Water Hard For 610' to 627' For Water Mafrazin For 620' to 6275'  
 Producing Sand Clinton Tuscarora Depth 6764' to 6859'

Casing and Tubing	Used in Drilling	Left in Well	Packers
5 1/2"			Kind of Packer _____
11 3/8"		153'	Size of _____
11 3/8"		2512'	Depth set _____
4 1/2"		5451'	Perf. top _____
4 1/2"		6903'	Perf. bottom _____
1"			Perf. top _____
1"			Perf. bottom _____
Lines Used _____			

Attach copy of cementing record.

CASING CEMENTED 11-3/8" size 155 No. Ft. 7-1-79

Amount of cement used (bags) 150 sks. CLASS-A

Name of Service Co. Halliburton

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

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

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\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sandy Shale			0	38			
Coal			38	45			
Sand			45	150			
Coal			150	155			
Sand			155	150			
Shale & Sand			150	610			
Sand			610	675			
Sand & Shale			675	1270			
Salt Sand			1270	1435			
Maxon Sand			1435	1765			
Little Lime			1765	1830			
Pencil Curve			1830	1850			
Big Lime			1850	2040			
Injun Sand			2040	2099			
Shale			2099	2475			
Berca			2475	2490			
Shale			2490	3256			
Lime			3256	3360			
Sand			3360	3398			
Lime			3398	3508			
Shale			3508	6690			
Newburg			6690	8175			
McKenzie			8175	8175			
Keefer			8175	8590			
Rose Hill			8590	8775			
Sand			8775	8795			
Shale			8795	8795			
Clinton			8795	8795			
Shale			8795	8795			

Bulk density top and bottom = 6244  
 6852

Comp. Neutron - For Density  
 TD = 6921

Log TD 6884'  
 from 4 1/2" 6903'

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's  
Well No. 20522

API Well No. 97 - 039 - 3410  
State County

WELL TYPE: Oil  / Gas  /  
(If "Gas", Production  / Underground storage  / Deep  / Shallow   
LOCATION: Elevation: 1484.09 Watershed: Simmons Creek  
District: Malden County: Kanawha Quadrangle: Charleston, East

WELL OPERATOR Columbia Gas Transmission Corp.  
Address P. O. Box 1273  
Charleston, West Virginia 25325

DESIGNATED AGENT John R. Henning  
Address P. O. Box 1273  
Charleston, West Virginia 25325

OIL & GAS ROYALTY OWNER Georges Creek Land & Mining Co.  
c/o John R. Shrewsbury  
Address P. O. Box 217  
Guilford, Connecticut 06437

COAL OPERATOR Unoperated  
Address \_\_\_\_\_

SURFACE OWNER Georges Creek Land & Mining Company  
Address P. O. Box 217  
Guilford, Connecticut  
Acreage \_\_\_\_\_

COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name Georges Creek Land & Mining Company  
Address P. O. Box 217  
Guilford, Connecticut  
Name \_\_\_\_\_  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
Name \_\_\_\_\_  
Address MAY 18 1979

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Martin Nichols  
Address P. O. Box 554  
Clendenin, WV 25045

OIL & GAS DIVISION  
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed  / lease  / other contract  / dated March 13, 1976, to the undersigned well operator from \_\_\_\_\_  
[If said deed, lease, or other contract has been recorded:]

Recorded on \_\_\_\_\_, 19\_\_\_\_, in the office of the Clerk of the County Commission of Kanawha County, West Virginia, in Deed Book 50 at page 120. A permit is requested as follows:

PROPOSED WORK: Drill  / Drill deeper  / Redrill  / Fracture or stimulate  /  
Plug off old formation  / Perforate new formation  /  
Other physical change in well (specify) \_\_\_\_\_

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS  
CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311

TELEPHONE: (304) 348-3092

BLANKET BOOK

COLUMBIA GAS TRANSMISSION CORPORATION  
Well Operator

By [Signature]  
Director, Exploration & Development

[08-78]

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Ray Resources Corporation

Address 630 Commerce Square

Charleston, WV 25301

GEOLOGICAL TARGET FORMATION, Tuscarora

Estimated depth of completed well, 6940 feet Rotary  / Cable tools  /

Approximate water strata depths: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.

Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area: Yes  / No  /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor	20"	Line	Pipe	X		30'		To surface	Kinds
Fresh water	13-3/8	H-40	48	X		160'		To surface	
Coal	9-5/8	H-40	32.3	X		2530'		To surface	Sizes
Intermediate	7"	N-80	23	X		5440'			
Production	4-1/2	C-75	13.5	X		6940'			Depths set
Tubing	2-3/8	J-55	4.6	X		6940'			
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 28, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is included as such on the Form IV-2 filed in connection therewith.

**THIS PERMIT MUST BE POSTED AT THE WELL SITE**

All provisions being in accordance with Chapter 22 of the W. Va. Code, the location is hereby approved for \_\_\_\_\_ drilling.

This permit shall expire if operations have not commenced by 1-25-80

*[Signature]*  
Deputy Director - Oil & Gas Division

The following information shall be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator \_\_\_\_\_ / owner \_\_\_\_\_ / lessee \_\_\_\_\_ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. 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: \_\_\_\_\_, 19\_\_\_\_

By \_\_\_\_\_  
Its \_\_\_\_\_