



RECORDED

NOV - 1 1979

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

OIL & GAS DIVISION
DEPT. OF MINES

- Spodder
- Cable Tools
- Storage

Quadrangle Blue Creek
Permit No. Kan. 3354

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Columbia Gas Transmission Corporation
Address P.O. Box 610 Clendenin, WV
Farm William Crusan Acres 100
Location (waters) Imhoff Br. of Elk River
Well No. 12121 Elev. 757.94
District Elk County Kanawha
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by William Crusan
Address Sunrise, Florida
Drilling commenced October 19, 1978
Drilling completed October 30, 1978
Date 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 (DETAILS) 1000 gal. MCA
15%
WELL FRACTURED (DETAILS) 782 bbl with 30,000# 20/40 Sand

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13 3/8"		93.90	Size of
10			Depth set
9 5/8"		2054.95	
6 3/4"			Perf. top
7"		5180'	Perf. bottom
4 1/2"			Perf. top
3			Perf. bottom
2 3/8"		5171.45	
Liners Used			

Attach copy of cementing record.
CASING CEMENTED 13-3/8" SIZE 93.90' No. Ft. 11-20-78 Date
Amount of cement used (bags) 150 sacks
Name of Service Co. Halliburton
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT (Initial open flow or bbls.) 4.1 MMCF
ROCK PRESSURE AFTER TREATMENT 1500 HOURS 72 hours
Fresh Water 65-70' Feet _____ Salt Water Salt Sand Feet 910' to 1345'
Producing Sand Oriskany Sand Depth 5189' to 5222'

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soap Stone			0	15			
Sand & Shale			15	65			
Sand			65	70			
Sand & Shale			70	910			
Salt Sand			910	1345			
Shale & Red Rock			1345	1425			
Maxon Sand			1425	1445			
Shale			1445	1510			
Little Lime			1510	1535			
Shale & Lime			1535	1570			
Big Lime			1570	1710			
Sand			1710	1760			
Injun Sand			1760	1846			
Weir Sand			1846	1862			
Shale			1862	5058			
Onondaga Lime			5058	5189			
Oriskany			5189	5222			
TD			5253				



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
OCT 11 1978

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE October 9, 1978

Surface Owner Carl & Maxine Givens
Address _____
Mineral Owner William Crusan etal
Address 10431 NW 21st Court, Sunrise, Florida
Coal Owner Same as above
Address _____
Coal Operator Unoperated

Company Columbia Gas Transmission Corp.
Address P.O. Box 1273, Charleston, WV
Farm William Crusan Acres 100
Location (writors) Imhoff Br. of Elk River
Well No. 12121 Elevation 757.94
District Elk County Kanawha
Quadrangle Blue Creek

PERMIT MUST BE POSTED AT THE WELL SITE

provisions being in accordance with Chapter 22,
the W. Va. Code, the location is hereby approved
drilling. This permit shall expire if
operations have not commenced by 2-12-79

INSPECTOR
TO BE NOTIFIED Martin Nichols
ADDRESS P. O. Box 554, Clendenin, WV
PHONE 548-6993

[Signature]
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named items or tract of land for oil and gas, having fee
title thereto, (or as the case may be) under grant or lease dated April 25, 1955 by William
Crusan made to United Fuel Gas Company and recorded on the _____ day of _____
in Kanawha County, Book 136 Page 459

NEW WELL DRILL DEEPER REDEPILL FRACTURE OR STIMULATE
 OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1938.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators
have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required
to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days.

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators
or coal owners at their above shown respective address _____ day _____ before, or on the
same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
MC-304 - 292-6333

Very truly yours,
[Signature]
(Sign Name) _____
Well Operator
Director, Exploration & Development
P. O. Box 1273
Street
Charleston
City or Town
West Virginia 25325
State

SECTION 3 If no objections are filed or found by the Department of mines within said period of ten days from the receipt of
this notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit locating
the same on each plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved
and the well operator authorized to proceed.

BLANKET BOND

KAN-3354
PERMIT NUMBER
47-039

[Handwritten signature]

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON CG-10 UPON COMPLETION

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT _____
 NAME _____ NAME Larry Friend
 ADDRESS _____ ADDRESS P.O. Box 610, Clendenin, WV
 TELEPHONE _____ TELEPHONE 965-3317
 ESTIMATED DEPTH OF COMPLETED WELL: 5245' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 TYPE OF WELL: OIL _____ GAS _____ COMB. _____ STORAGE X DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT LIFT UP OR SACKS - CUBIC FT.
20" 16			
13" XX 3/8	280'		To surface
9" 5/8	1965'		To surface
8" 3/4			
7"	5110'		
5 1/2"			
4 1/2"			
3"			
2" 3/8	5130'		Perf. Top
1 1/2"			Perf. Bottom
1 1/4"			Perf. Top
1 1/8"			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? NO BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OC - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title