



LOREN WESLEY O'DELL, ET. AL.
(SURFACE)

COLUMBIA GAS TRANS. CORP. (MIN.)
*3965 (487.4^a)

J.M. STAUNTON, ET. AL.
(4.74^a)

BLUE CREEK COAL & LAND CO.
(113.87^a)

BLUE CREEK COAL & LAND CO.
(33.98^a)

BENCH MARK

U.S. GOVERNMENT STANDARD DISK IN CONCRETE MONUMENT AT FORKS OF ROAD ALONG 5 MILE FORK OF CAMPBELL'S CREEK ELEVATION 944.60'

"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

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

ENGR. REG. NO 2330 Signed Adrian E. Hardman
BOX 1273 CHARLESTON, W. VA.

Company COLUMBIA GAS TRANS. CORP.
 Address BOX 1273 CHARLESTON, W. VA.
 Farm COL. GAS TRANS. CORP. (MINERAL)
 DEED 21002 ET. AL. Acres 640 (MERGER)
 Well Farm No. 14 Ser. No. 20515
 Elevation - Spirit Level 1200.19' WC
 Quadrangle QUICK, CLENDENIN 15'
 Township or District ELK
 County KANAWHA
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LAT. 38°22'22" LONG. 81°27'31"
 File No. 70-59 Dwg. No. _____
 Date 3-3-77 Scale 1" = 1000'

WELL LOCATION MAP
STATE OF WEST VIRGINIA

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

KAN - 3351

Scale 15' 7 1/2'

47 - 039

Deep Well 7125 Tuscarora 5-5 Indian Creek (358)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary
Spudder
Cable Tools
Storage

Quadrangle Quick

WELL RECORD *55*

Permit No. Kan-3351

Oil or Gas Well Gas
(KIND)

Company Columbia Gas Transmission Corporation
Address P.O. Box 610 Clendenin, WV
Farm Columbia Gas Trans. Corp. Acrea 640
Location (waters) Mill Creek
Well No. 20515 Elev. 1290.49'
District Elk County Kanawha
The surface of tract is owned in fee by Loren Wesley O'Dell

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13 3/8		90	
9-5/8		2419	Size of
8 1/4			
6 3/4			Depth set
5 3/16			
4 1/2			
3			Perf. top
2 3/8		6923	Perf. bottom 7024
Liners Used 7"		3356	Perf. top 7030
4 1/2"		1874	Perf. bottom

Mineral rights are owned by Columbia Gas Trans. Corp.
Address PO Box 1273 Chas. WV

Drilling commenced 12-4-78
Drilling completed 1-15-79
Date Shot From To

Open Flow /10ths Water in Inch
/10ths Merc. in Inch
Volume Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.

Attach copy of cementing record.
CASING CEMENTED 90 20 SIZE 13-3/8 No. Ft. 12-6-78 Date
Amount of cement used (bags) 75 sks. Neat
Name of Service Co.
COAL WAS ENCOUNTERED AT FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

WELL ACIDIZED (DETAILS)
WELL FRACTURED (DETAILS) 873 bbls. with 10,000# 80/100 sand & 30,000# 20/40 sand

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 1342 MCF
ROCK PRESSURE AFTER TREATMENT 1800 HOURS 48
Fresh Water Feet Salt Water Feet
Producing Sand Tuscarora Depth 6940' - 7040

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale			0	115			
Sand			115	220			
Shale			220	325			
Sand			325	340			
Shale			340	400	H ₂ O		
Sandy Shale			400	480			
Sahle			480	530			
Sand			530	602			
Shale	Gray		602	1060			
Sand	Gray		1060	1120			
Sand	White		1120	1705			
Red Rock			1705	1730			
Maxon			1730	1760			
Sandy Shale			1760	1770			
Little Lime			1770	1805			
Shale			1805	1885			
Big Lime			1885	1945			
Shale			1945	1955			
Injun			1955	1970			
Red Rock			1970	1995			
Sandy Shale			1995	2200			
Weir			2200	2240			
Shale&Sand			2240	2472			
Shale			2472	5320			
Onondaga			5320	5450			
Oriskany			5450	5480			
Shale			5480	6170			
Newburg			6170	6210			

RECEIVED
FEB - 1 1980
OIL & GAS DIVISION
DEPT. OF MINES

Formation	Color	Hard or Soft	Top <i>SS</i>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shale			6210	6400			
Sand			6400	6445			
Shale			6445	6865			
Sand			6865	6950			
Clinton			6950	7040			
Shale			7040	7106 T.D.			

Date January 31, 1988

APPROVED Bernard Patten, Owner

By Technical Manager
(Title)
for Cal. Gas Trans. Corp.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

SEP 28 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 September 26, 1978

Surface Owner Loren Wesley O'dell
Address _____
Mineral Owner Columbia Gas Transmission Corp.
Address P. O. Box 1273, Charleston, W. Va.
Coal Owner Same as above
Address _____
Coal Operator Unoperated
Address _____

Company Columbia Gas Transmission Corporation
Address P. O. Box 1273, Charleston, W. Va.
Farm Columbia Gas Trans. Corp. Acres 640
Location (waters) Indian Creek
Well No. 20515 Elevation 1290.49'
District Elk County Kanawha
Quadrangle Quick

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 2-3-79.

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

Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated June 30, 1971 by _____ made to _____ and recorded on the _____ day of _____ 19____ in Kanawha County, Book 1624 Page 662

NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

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:

W. VA. OIL & GAS CONSERVATION COMMISSION
1613 WASHINGTON STREET, EAST
CHARLESTON, WEST VIRGINIA 25311

Address
of
Well Operator

Very truly yours,
(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 notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit, reciting the filing of such 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-3351 PERMIT NUMBER

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

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME _____ NAME Larry Friend _____
 ADDRESS _____ ADDRESS P.O. Box 610, Clendenin, W.Va. _____
 TELEPHONE _____ TELEPHONE 965-3317 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 7125' ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Tuscarora _____
 TYPE OF WELL: OIL _____ GAS COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT LIFT UP OR SACKS - CUBIC FT
20 - 16"	30'		
13 - 40" 3/8	160'		To Surface
9 - 5/8"	2480'		To Surface
8 - 5/8"			To Surface
7"	5515'		
5 1/2"			
4 1/2"	7125'		
3"			
2" 3/8	7125'		Perf. Top
1 1/2"			Perf. Bottom
1"			Perf. Top
3/4"			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 OG - 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 23 of the West Virginia Code.

 For Coal Company

 Official Title