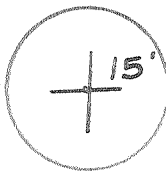


Latitude 39° 25'

4420 S
4040 W

0.885
1.51 W
3.01



39 24 15
81 03 10

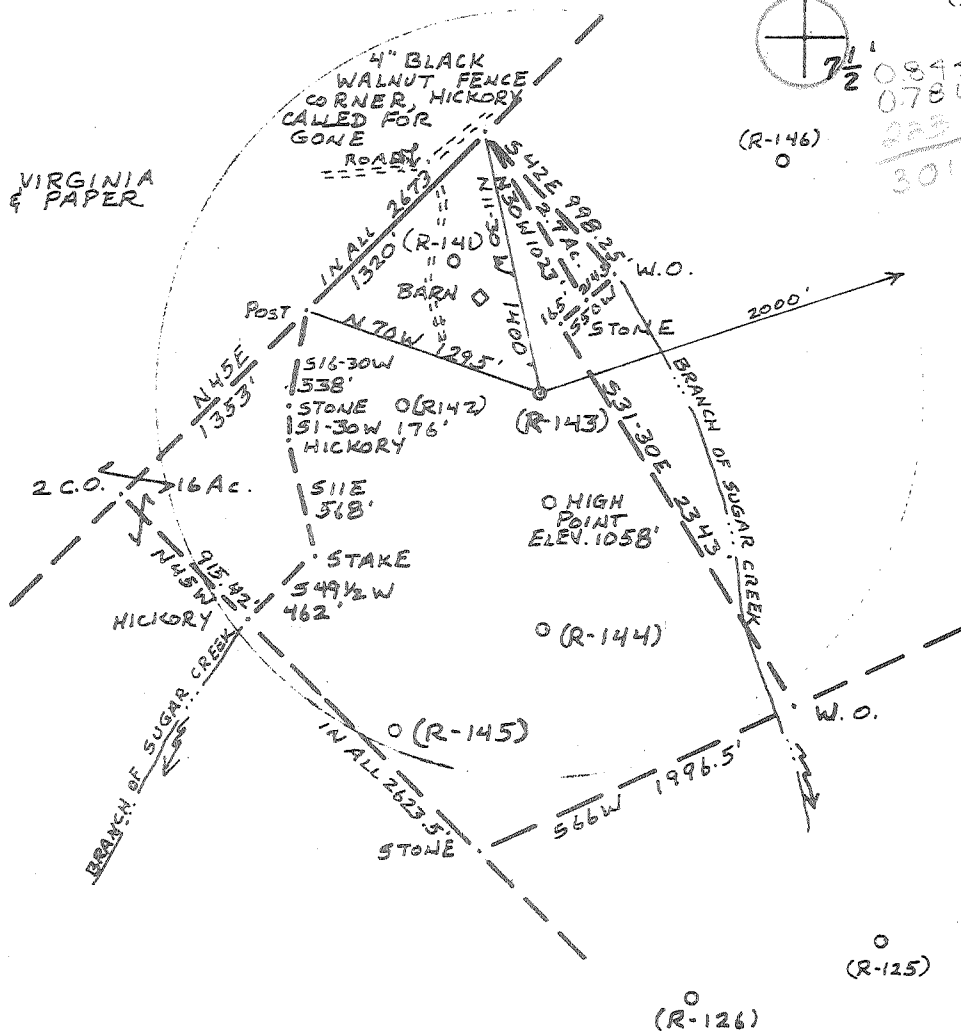
(R-147)



7 1/2
0.8943
0.780
283
301

(15) 81° 00'
81° 02 1/2'

WEST VIRGINIA PULP & PAPER



WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 TARGET FORMATION UPPER DEVONIAN
 ESTIMATED DEPTH 3120'

API WELL NO.
47-073-776
STATE COUNTY PERMIT

- Structure
- Drill
- New Location
- Hand Draper
- Abandoned

Source of Elevation HIGH POINT ELEV. 1058'

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 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

William K. Mossor Minimum accuracy, one part in 200

WELL OPERATOR C.W. RIGGS INC.
 ADDRESS Box 358, ST. MARYS, W.VA. 26170
 DESIGNATED AGENT C.W. RIGGS
Box 358, ST. MARYS, W.VA. 26170
 SURFACE OWNER S. B. TICE
 O.G.G. ROYALTY OWNER C. B. TICE

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

WELL LOCATION MAP
 FILE NO. **47-073-0776**

Acres 148 1/2 Lease No. _____
 Farm No. R-143 Serial No. _____
 (Surface level) 1024' *EC*
ST MARYS 15'
BENS RUN, W.VA. 7 1/2' QUAD.
 WATER SHED SUGAR CREEK
PLEASANTS District UNION
 Surveyed by WILLIAM R. MOSSOR, L.L.S.
 State's Registration No. 551
 Drawing No. _____
 Date 6 JUNE 1979 Scale 1" = 1000'

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.

JUN 26 1979



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division
WELL RECORD 64

RECEIVED
FEB 22 1980

OIL & GAS DIVISION
DEPT. OF MINES
Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb.
Water Flood _____ Storage _____
Disposal _____ (Kind)

Quadrangle Berea Run
Permit No. 47-013-0776

Company C. W. Riggs, Inc.
Address Box 358 St. Marys W. Va.
Farm C. B. Tice Acres 188.5
Location (waters) Sugar Creek
Well No. R-143 Elev. 1024
District Wayne County Pleasants
The surface of tract is owned in fee by C. B. Tice

Address St. Marys, W. Va.
Mineral rights are owned by C. B. Tice
Address Same

Drilling Commenced 7-31-79
Drilling Completed 8-4-79
Initial open flow _____ cu. ft. _____ bbls.
Final production 39,000 cu. ft. per day 5 bbls.
Well open _____ hrs. before test _____ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Stks.)
Size 20-16			
Cond. 13-10"	250	250	
9 5/8			
8 5/8	1090'	1090'	
7			
5 1/2			
4 1/2		3118'	455 stks
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Perforations 2853' - 2891' 26 shots

Fracture Treatment

580-439 MCF

1500 BBL of H₂O 100,000* SAND

Coal was encountered at N/A Feet _____ Inches
Fresh water N/A Feet _____ Salt Water N/A Feet _____
Producing Sand GORRIS Depth 2849-2895

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
1st SALT	SAND		1428'	1472'		* TOP LOG
2nd SALT	SAND		1506'	1520'		
3rd SALT	SAND		1562'	1616'		
MAXON			1701'	1744'		
B.g Lime			1800'	1873'		
Kecner			1876'	1912'		
INJON			1962'	2103'		
SQUAW			2104'	2110'		
Welch Story			2337'	2350'		
Berea			2418'	2424'		
50 FOOT			2542'	2644'		
30 FOOT			2710'	2741'		

(over)

* Indicates Electric Log tops in the remarks section.

FEB 20 1980

Description	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
GREEN	STAINY		2758'	2791'		
GREEN			2849'	2895'	OIL & GAS	
SAND			2917'	2925'		
SAND			3004'	3027'		
			bitm alh incg 3118 <hr/> log TD 3145			

Date Feb 8 19 80

APPROVED C.W. Riggs, Inc. Owner

By John Schneider



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

JUN 13 1979
OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE 6-11-79

Surface Owner C. B. Tice
Address Rt. 39, St. Marys, W. Va.
Mineral Owner C. B. Tice
Address Rt. 39, St. Marys, W. Va.
Coal Owner C. B. Tice
Address Rt. 39, St. Marys, W. Va.
Coal Operator None
Address _____

Company C. W. Riggs, Inc
Address Box 358, St. Marys, W. Va.
Farm C. B. Tice Acres 148.5
Location (waters) Sugar Creek
Well No. R-143 Elevation 1024'
District Union County Pleas.
Quadrangle Bens Run, W. Va.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 2-14-80.

INSPECTOR
TO BE NOTIFIED Philip Tracy
ADDRESS Middlebourne, W. Va.
PHONE 758-4573

Robert H. Bell
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 there to, (or as the case may be) under grant or lease dated March 15 1979 by C. B. Tice made to Frank Pethel and recorded on the 15th day of March 1979, in Pleas. County, Book 151 Page 382
 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 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 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:

STATE DEPARTMENT OF MINES
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
C-304 - 292-6331

Very truly yours,

(Sign Name) C. W. Riggs
Well Operator
Address BOX 324
Street
St. Marys
City or Town
W. Va.
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 plat and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting 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

47-073-0776

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 Little Swiss Drilling NAME C.W. Riggs.
 ADDRESS Buchannon, W.Va. ADDRESS St. Marys, W.Va.
 TELEPHONE 472-6396 TELEPHONE 684-3974
 ESTIMATED DEPTH OF COMPLETED WELL: 3150' ROTARY CABLE TOOLS
 PROPOSED GEOLOGICAL FORMATION: Upper Devonian
 TYPE OF WELL: OIL GAS COMB. STORAGE DISPOSAL
 RECYCLING WATER FLOOD OTHER

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	DEPTH IN WELL	CEMENT FILL UP OR SACKS CUBIC FT
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8 250'		250'	Cement Top-Bottom
7			
5 1/2			
4 1/2		3150'	200 sks,
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 120 FEET SALT WATER FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? None 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 22 of the West Virginia Code.

For Coal Company

Official Title