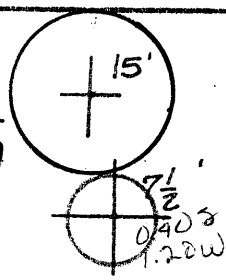


Latitude 39° 25'

2120 S  
6290 W

0.43 S  
3.25 W  
3.43 W



JOHN GORRELL  
204 Ac.

LEWIS BRADY JR.  
68 Ac.

JOHN WELCH  
182 Ac. 130 P.

ROY ANKROM  
21 Ac.

T. REINERTSEN  
75 Ac.

39 24 40  
80 58 40

80° 55'  
80° 57 1/2'  
Longitude

NORTH

WELL TYPE: OIL & GAS / LIQUID INJECTION / WASTE DISPOSAL / PRODUCTION / STORAGE / DEEP / SHALLOW  
 TARGET FORMATION UPPER DEVONIAN  
 ESTIMATED DEPTH 2660'  
 API WELL NO. 47-095-  
 STATE COUNTY PERMIT

Fracture...   
 Redrill...   
 New Location   
 Drill Deeper   
 Abandonment   
 Source of Elevation B.M. ELEV. 769'  
 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.  
 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  
 ADDRESS Box 358, ST. MARYS, W. VA. 26170  
 SURFACE OWNER JOHN WELCH  
 O. & G. ROYALTY OWNER JOHN WELCH  
 Tract Acres 182 Ac. 130 P. Lease No. \_\_\_\_\_  
 Well (Farm) No. R-148 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 761'  
 WATER SHED SUGAR CREEK WEST UNION 15'  
 Quadrangle MIDDLEBOURNE, W. VA. T. 7. QUAD.  
 County TYLER District MEADE  
 Surveyor or Engineer WILLIAM R. MOSSOR, L.L.S.  
 Surveyor's or Engineer's Registration No. 551  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 12 JUNE 1979 Scale 1" = 1000'

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

WELL LOCATION MAP  
 FILE NO. 47-095-0705

+ 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 24 1979

6-6 Shiloh-Wick (86)



FEB 22 1980

STATE OF WEST VIRGINIA DEPARTMENT OF MINES Oil and Gas Division

OIL & GAS DIVISION DEPT. OF MINES

WELL RECORD 84

Quadrangle Middlebourne Permit No. 47-095-0705

Rotary [X] Oil Cable Gas Recycling Comb. [X] Water Flood Storage Disposal (Kind)

Company C.W. Riggs, Inc. Address St. Marys, W. Va. Farm John Welch Acres 182 Location (waters) Sugar Creek Well No. R-148 Elev. 761' District Meade County Tyler The surface of tract is owned in fee by John Welch Address Wick, W. Va. Mineral rights are owned by John Welch Address Same Drilling Commenced 9-4-79 Drilling Completed 9-8-79 Initial open flow cu. ft. bbls. Final production 32000 cu. ft. per day 2 bbls. Well open hrs. before test RP.

Table with columns: Casing and Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. (Sks.). Includes tubing sizes (20-16, 13-10, 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2) and cement fill up of 455 SKS.

Well treatment details: Attach copy of cementing record. Perforations - 2412' - 2470' 23 shots Fracture Treatment - 1500 BBL H2O 100,000 gal SAND, 118,000 SCF N2 32 MCF + 1 B0

Coal was encountered at N/A Feet. Fresh water N/A Feet. Salt Water N/A Feet. Producing Sand 30 Foot Depth 2408-2470

Table with columns: Formation, Color, Hard or Soft, Top Feet, Bottom Feet, Oil, Gas or Water, \* Remarks. Lists formations like 1st. Salt Sand, 2nd. Salt Sand, MAXON, Big Lime, Keener, Injun, Squaw, Welch Stray, Berea.

\* Indicates Electric Log tops in the remarks section.

(over)

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
50	FOOT		2320'	2364'		
30	FOOT		2408'	2470'	OIL & GAS	
GORDON	Stray		2530'	2568'		
GORDON			2605'	2650'		
4 1/2	SAND		2680'	2689'		
						dr/r TD on log 2861 btm 4 1/2" csg 2848

Date Feb 13, 19 80

APPROVED C.W. Riggs, Inc. Owner

By John Schneider



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

JUL 10 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 6-19-78

Surface Owner John Welch  
Address Wick, W. Va.  
Mineral Owner John Welch  
Address Wick, W. Va.  
Coal Owner John Welch  
Address Wick, W. Va.  
Coal Operator None  
Address \_\_\_\_\_

Company C.W. Riggs, Inc.  
Address Box 358, St. Marys, W. Va.  
Farm John Welch Acres 182Ac. 130P.  
Location (waters) Sugar Creek  
Well No. R-148 Elevation 761'  
District Meade County Tyler  
Quadrangle Middlebourne, W. Va.

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 3-10-80.

INSPECTOR

TO BE NOTIFIED Phillip Tracy

ADDRESS Middlebourne, W. Va.

PHONE 758-4573

[Signature]  
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 May 24 1979 by John Welch made to Loren Bagley and recorded on the 22nd day of June 1979, Tyler County, Book 219 Page 435

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:

WEST VIRGINIA GEOLOGICAL AND  
ECONOMIC SURVEY  
P. O. BOX 879  
MORGANTOWN, WEST VIRGINIA 26505  
AC-304 - 292-6331

Address  
of  
Well Operator

Very truly yours,  
(Sign Name) [Signature]  
Well Operator

Box 358 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 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

47-095-0705

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, Inc.  
 ADDRESS Buchannon, W. Va. ADDRESS St. Marys, W. Va.  
 TELEPHONE 472-6396 TELEPHONE 684-3974  
 ESTIMATED DEPTH OF COMPLETED WELL 2900' 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	LEFT IN WELL	CEMENT THE 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		2900'	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? 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 22 of the West Virginia Code.

\_\_\_\_\_  
 For Coal Company  
 \_\_\_\_\_  
 Official Title