



WELL TYPE: OIL X GAS X LIQUID INJECTION WASTE DISPOSAL
 PRODUCTION X STORAGE DEEP SHALLOW X

TARGET FORMATION UPPER DEVONIAN

ESTIMATED DEPTH 2980'

API WELL NO 47-095-707

STATE COUNTY PERMIT

Fracture... Source of Elevation BM ELEV. 769'

Redrill...

New Location 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.

Drill Deeper

Abandonment *William R. Mossor* Minimum accuracy, one part in 200

WELL OPERATOR C.W. RIGGS, INC.
 ADDRESS BOX 350, ST. MARYS, W.VA. 26170
 DESIGNATED AGENT C.W. RIGGS
 ADDRESS BOX 250, ST. MARYS, W.VA. 26170
 SURFACE OWNER JOHN WELCH
 O.G. ROYALTY OWNER JOHN WELCH

Tract _____ Acres _____ Lease No. _____

Well (Farm) No. R-150 Serial No. _____

Elevation (Spirit Level) 877'

WATER SHED SUGAR CREEK WEST UNION 15'
 Quadrangle MIDDLEBOURNE, W.VA. 7 1/2' 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. 47-095-0707

+ 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.

JUL 24 1979

2455' Upper Newman 6-6 Shiloh-Wick (86)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECORDED
FEB 22 1980

Oil and Gas Division
WELL RECORD

OIL & GAS DIVISION
DEPT. OF MINES

Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb
Water Flood _____ Storage _____
Disposal _____ (Kind)

Quadrangle Middle
Permit No. 47-095-0707

Company C. W. Ragsdale
Address St. Marys W. Va.
Farm John Welch Acres 182
Location (waters) Sugar Creek
Well No. R-150 Elev. 877'
District Meade County Tyler
The surface of tract is owned in fee by _____
John Welch
Address Welch, W. Va.
Mineral rights are owned by John Welch
Address SAME
Drilling Commenced 9-8-79
Drilling Completed 9-13-79
Initial open flow _____ cu. ft. _____ bbls.
Final production 27000 cu. ft. per day 7 bbls.
Well open _____ hrs. before test _____ RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu ft (Sks)
Size 20-16			
Cond. 13-10"			
9 5/8	250	250	
8 5/8	806'	806'	
7			
5 1/2			
4 1/2		296'	455 SKS
3			
2			
Liners Used			

Attach copy of cementing record.

Perforations 2576' - 2137' 26 shots

Fracture Treatment 700 + 27MCF
1500 Bbl of H₂O 100,000' sand
125,000 SCF N₂

Oil was encountered at 1211' Feet. _____ Inches
Fresh water N/A Feet _____ Salt Water 111' Feet _____
Producing Sand 30-ft. Gordon, 4th SAND Depth 2562-2623, 2681-2724, 2754-2785
30-ft. Gordon 4th

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
COW RUN			999'	1265'	*	TOP COB
1st SALT SAND			1297'	1321'		
2nd SALT SAND			1360'	1383'		
3rd SALT SAND			1432'	1491'		
SHALE			1553'	1589'		
g lime			1710'	1794'		
limestone			1795'	1821'		
gypsum			1822'	1970'		
clay			1971'	1989'		
rich STRAY			2223'	2250'		
SHALE			2339'	2349'		
COAL FOOT			2407'	2457'		

(over)

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
			2562	2608	Gas, Oil	
			2681	2724	Gas	
			2754	2785	Gas, Oil	
			2810	2819		
			2901	2910		
						drilled on log 2982
						btm 4 1/2" csg 2967

Date Feb 13, 19 80

APPROVED C. W. Riggs, Inc. Owner

By John Schneider



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECORDED
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 6-19-79
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-150 Elevation 877'
District Meade County Tyler
Quadrangle Middlebourne, W. Va.

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 _____

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

Robert S. [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, in 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

Very truly yours,
(Sign Name) C.W. Riggs
Box 358 Well Operator
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

47-095-0707 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) Little Swiss Drilling RESPONSIBLE AGENT C.W. Riggs; Inc.

NAME Little Swiss Drilling ADDRESS St. Marys

ADDRESS Buchannon, W. Va. TELEPHONE 684-3974

TELEPHONE 472-6396 ROTARY CABLE TOOLS

ESTIMATED DEPTH OF COMPLETED WELL 2980'

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	FEET IN WELL	CEMENT (FEET 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		2980'	200 sks.
3			Perf. Top
2			Perf. Bottom
LINES			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