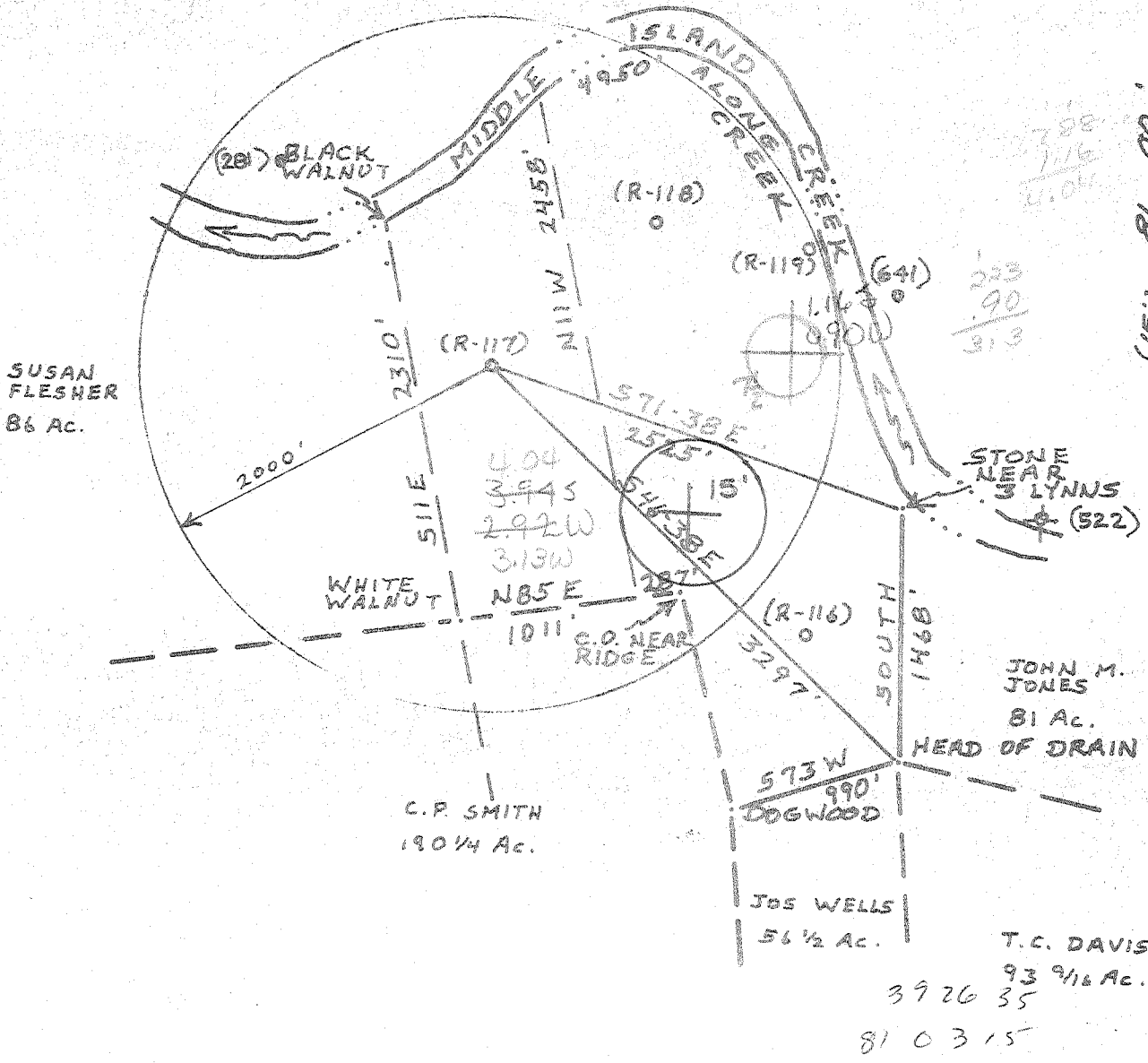


Latitude $39^{\circ} 27' \frac{1}{2}$
 (5') $39^{\circ} 30'$
 6120 S
 4720 W

Longitude $81^{\circ} 02' \frac{1}{2}$
 (15') $81^{\circ} 00'$



Target Formation GORDON
 Estimated Depth 3000'

API WELL NO.
47-073-
 State County Permit

PROPOSED WORK: WELL TYPE: Oil Gas Liquid Injection Waste Disposal
 (IF "GAS", Production Storage Deep Shallow
 Fracture
 Redrill
 New Location
 Drill Deeper
 Abandonment *William R. Mossor* Minimum accuracy, one part in 200

Well Operator C.W. RIGGS INC.
 Company Box 358, ST. MARYS, W.VA. 26170
 Designated Agent C.W. RIGGS
 Address Box 358, ST. MARYS, W.VA. 26170
 SURFACE OWNER JAMES GREEN
 OIL & GAS ROYALTY OWNER C.W. RIGGS

Tract _____ Acres 53 Lease No. _____
 Well (Farm) No. R-117 Serial No. _____
 Elevation (Spirit Level) 816' NE
 Water Shed MIDDLE ISLAND CREEK
 Quadrangle BENS RUN, W.VA. 7 1/2' QUAD.
ST. MARYS
 County PLEASANTS District UNION
 Surveyor or
 Engineer WILLIAM R. MOSSOR, L.L.S.
 Surveyor's or
 Engineer's Registration No. 551

File No. _____ Drawing No. _____
 Date 6 MARCH 1979 Scale 1" = 1000'

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

WELL LOCATION MAP
 FILE NO. 47-073-0740

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented as border lines as shown.
 -- Denotes one inch spaces on border line of original tracing.

APR 27 1979

5-5 Shifoh-Wick (86)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

FEB 22 1980

Oil and Gas Division
WELL RECORD 52

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

Quadrangle BENS RUN
Permit No. 49-073-0740

Company C. W. Riggs, Inc.
Address Box 358, St. Marys, W.Va.
Farm JAMES GREEN Acres 108
Location (waters) MIDDLE ISLAND CREEK
Well No. R-117 Elev. 816'
District UNION County PLEASANTS

The surface of tract is owned in fee by JAMES GREEN
Address ARKULA, W.VA.
Mineral rights are owned by SAME
Address SAME

Drilling Commenced 5-8-79
Drilling Completed 5-13-79
Initial open flow N/A cu. ft. N/A bbls.
Final production 24000 cu. ft. per day 2 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			
Cand. 13(10) MIN.	250'	250'	
9 5/8			
8 5/8	926'	926'	
7			
5 1/2			
4 1/2		2912'	395 Sks.
3			
2			
Liners Used			

Attach copy of cementing record.

PERFORATIONS 2627' - 2177' 13 SHOTS

FRACTURE TREATMENT
1500 BBL H₂O, 100,000 # 20-40 SAND, 125,000 SPEN₂

Coal was encountered at N/A Feet _____ Inches _____
Fresh water N/A Feet _____ Salt Water N/A Feet _____
Producing Sand GORDON Depth 2609-2602

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
SALT SAND	1		1211	1230		* Top Log
SALT SAND	2		1278	1294		
SALT SAND	3		1332	1370		
MAXON			1431	1466		
KEENER			1502	1534		
INJUN			1710	1850		
SQUAW			1944	1961		
WELCH STRAY			2018	2080		
BEREA			2143	2160		

(over)

Indicates Electric Log tops in the remarks section.

MAR 10 1980

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
50 foot			2297	2347		
30 foot			2370	2407		
GORDON STRAY			2420	2511		
GORDON			2609	2667	OIL & GAS	
4TH SAND			2715	2722		
5TH SAND			2757	2770		

07/11/80
 C.S.G.
 2912

Date 1-31 1980

APPROVED C. W. Riggs, Inc. Owner

BY [Signature]



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

APR - 9 1979

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 4-5-79

Surface Owner James Green

Company C. W. Riggs, Inc.

Address Arvilla, W. Va.

Address Box 358, St. Marys, W. Va. *From Plat*

Mineral Owner James Green

Farm Green Acres 108 53 R

Address Arvilla, W. Va.

Location (waters) Middle Island Creek

Coal Owner James Green

Well No. R-117 Elevation 816'

Address Arvilla, W. Va.

District Union County Pleasants

Coal Operator None

Quadrangle Bens Run, W. Va.

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 12-10-79.

INSPECTOR
TO BE NOTIFIED Philip Tracy

ADDRESS Middlebourne, W. Va.

PHONE 758-4573

Robert T. D.
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 Sept. 15 1978 by James Green made to Loren Bagley and recorded on the 7th day of Feb. 1979 in Pleasants County, Book 151 Page 230

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
Well Operator

Address _____
of _____
Well Operator _____
_____ Street _____
_____ City or Town _____
_____ 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 COPY

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

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Little Swiss Drilling NAME C. W. Riggs, Inc.
 ADDRESS Buchannon, W. Va. ADDRESS Box 358, St. Marys, W. Va.
 TELEPHONE 472-6396 TELEPHONE 684-3974
 ESTIMATED DEPTH OF COMPLETED WELL: 2915' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Upper Devonian
 TYPE OF WELL: OIL _____ GAS _____ COMB. X STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT 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		2915'	200 sks.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 100' 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