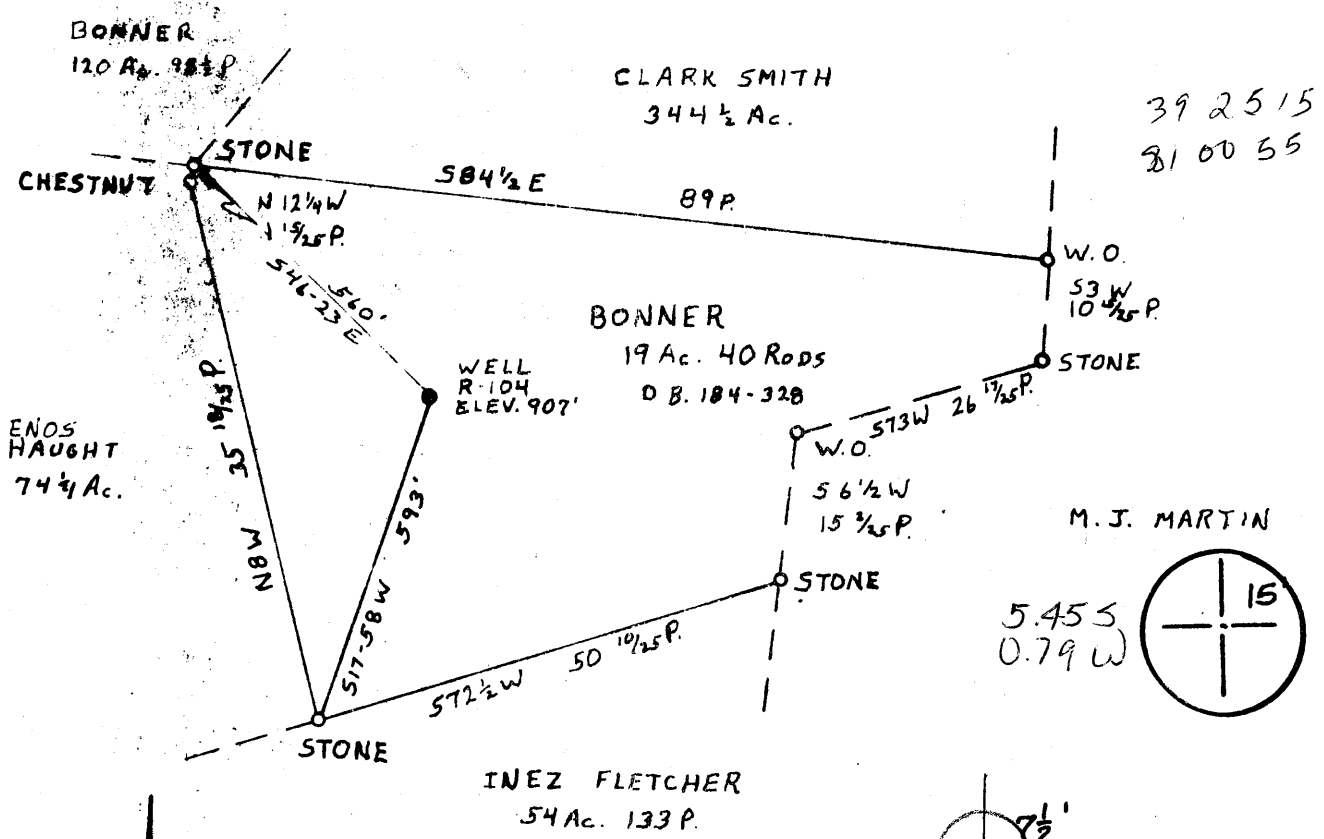


Latitude  $39^{\circ} 27\frac{1}{2}'$   
 $39^{\circ} 30'$   
 13410 S  
 4050 W

Latitude 81 00'



Source of Elevation ROAD ELEV. ELEV. 732'

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

Minimum accuracy, one part in 200

Company L.W. RIGGS INC  
 Address BOX 35B, ST. MARYS, W.VA. 26170  
 Farm BONNER  
 Acres 19-40R. Lease No. \_\_\_\_\_  
 Well (Name) R-104 Serial No. \_\_\_\_\_  
 Elevation (spirit level) 907' NE  
 Township ST. MARYS T5  
 Range BENS RUN, W.VA. 7 1/2' QUAD.  
 Surveyor TYLER District MEADE  
 Registered Professional Engineer WILLIAM R. MOSSOR  
 Registration No. LLS. # 551  
 Date 9 OCT. 1978 Scale 1" = 20 P.

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

**WELL LOCATION MAP**  
 FILE NO. **47-095-0682**

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 origin tracing.

FEB 6 1979

3-3 Shiloh-Wick (86)



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 78

RECEIVED

FEB 22 1980

OIL & GAS DIVISION  
DEPT. OF MINES

Rotary  Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas \_\_\_\_\_  
Recycling \_\_\_\_\_ Comb.   
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Quadrangle BENSRUN  
Permit No. 47-095-0682

Company C.W. Riggs, Inc.  
Address Box 358, ST. MARYS, W.VA.  
Farm BONNER Acres 19  
Location (waters) SUGAR CREEK  
Well No. R104 Elev. 907'  
District MEADE County TYLER  
The surface of tract is owned in fee by E.E. BONNER  
Address MEADEVILLE, W.VA.  
Mineral rights are owned by T.V. FLETCHER  
Address MCCLEAN, VA.  
Drilling Commenced 3-22-79  
Drilling Completed 3-28-79  
Initial open flow N/A cu. ft. N/A bbls.  
Final production 50,000 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			
Cond. 13 (10) MIN	250'	250'	
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2			
3			
2			
Liners Used			

2923 345 SKS.

Attach copy of cementing record.

50MCF + 280

PERFORATIONS 10 shots 2749-2773 20 shots 2880-2900

H<sub>2</sub>O/SAND/N<sub>2</sub> TREATMENT

1500 BBL H<sub>2</sub>O, 100,000 # 20-40 SAND, 125,000 SCF N<sub>2</sub>

Coal was encountered at \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet Salt Water \_\_\_\_\_ Feet  
Producing Sand GORDON + FLETH SAND Depth 2744-2777 2880-2900  
GOR 5ft

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
1ST SALT			1306	1322		* Top log
2ND SALT			1388	1414		
3RD SALT			1434	1460		
MAXON			1510	1542		
BIG LIME			1568	1605		1920
KEENER			1691	1714		
INJUN			1828	1920		
SQUAW			1942	1991		
WELCH STRAY			2250	2287		
BEREA			2340	2346		

(over)

\* Indicates Electric Log tops in the remarks section.

MAR 10 1980

Formation	Color	Hard or Soft	Top Feet 78	Bottom Feet	Oil, Gas or Water	Remarks
THIRTY FOOT			2582	2622		
GORDON			2756	2774	OIL & GAS	
5th SAND			2870	2900	" "	
						TD @ least 2923 - 6tm 4 1/2" csg

2900  
 2774  
 -----  
 126 ft.  
 exploratory

Date 1-23 1980  
 APPROVED [Signature] OWNER  
 By [Signature]



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE 1-10-79

Surface Owner E E GUNNER

Company C W Riggs, Inc

Address Meadowville, W. Va

Address Box 358, St Marys, W. Va

Mineral Owner Irma Fletcher

Farm Summer Acres 17

Address Meadowville, W. Va

Location (waters) Susan Creek

Coal Owner Irma Fletcher

Well No. R-104 Elevation 907'

Address Meadowville, W. Va

District MARBLE County TYLER

Coal Operator None

Quadrangle 3585 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 9-12-79.

INSPECTOR TO BE NOTIFIED PHILIP TRACY

ADDRESS MIDDLEBORNE, W. VA

PHONE 758-4573

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 Nov 22 1978 by GUNNER & FLETCHER made to LOREN B. BRIDGES and recorded on the 15th day of DEC 1978 in TYLER County, Book 217 Page 401

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  
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.

**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 HAUGHT DRILLING NAME C. W. R. 995 JMS  
 ADDRESS SMITHVILLE WVA ADDRESS 3158 5th Ave WVA  
 TELEPHONE 477-5331 TELEPHONE 474-1874  
 ESTIMATED DEPTH OF COMPLETED WELL: 2907' ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Carbon  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS \_\_\_\_\_ COMB. X STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

**TENTATIVE CASING PROGRAM:**

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT LIFT UP OR SACKS CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	<u>20'</u>	<u>250'</u>	<u>Cement Top Bottom</u>
7			
5 1/2			
4 1/2		<u>2907'</u>	<u>200 SKS.</u>
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 147 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