



**CERTIFICATE**

"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 degree of accuracy is one part in 200

Signed [Signature] LLS 247

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY CITIES SERVICE COMPANY  
 ADDRESS BX 879 CHARLESTON WV 25325  
 FARM LEWIS MAXWELL 'D'  
 MAP \_\_\_\_\_ ACRES 640 Ac. LEASE NO. WV 432  
 WELL (FARM) NO. D-26 SERIAL NO. GW 1863  
 ELEVATION (SPIRIT LEVEL) 895.98  
 QUADRANGLE WEST UNION 7 1/4 15'  
 COUNTY DODDRIDGE DISTRICT WEST UNION  
 POINT OF PROVEN ELEVATION. CITIES SERVICE L. MAXWELL  
D-21 ELEV 836.46  
 FILE NO. \_\_\_\_\_ DRAWING NO. W-6-80  
 DATE MAY 30 1980 SCALE 1" = 8000'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. **017-2759**

+ 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.  
 5100' ALEXANDER  
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
Oil and Gas Division

WELL RECORD 23

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

Quadrangle West Union  
Permit No. 47-017-2759

Company Cities Service Company  
Address Box 873, Charleston, WV 25323  
Farm Lewis Maxwell et ux Acres 640  
Location (waters) Bluestone Run  
Well No. "D" #26, GW-1863 Elev. 895.92  
District West Union County Doddridge  
The surface of tract is owned in fee by Charles  
Wellings  
Address West Union, WV 26456  
Mineral rights are owned by Lewis Maxwell Heirs  
Robert Holland Agent  
Address West Union, WV 26456  
Drilling Commenced 7-30-80  
Drilling Completed 12-2-80  
Initial open flow show cu. ft. - bbls.  
Final production 271 M cu. ft. per day - bbls.  
Well open 4 hrs. before test - RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. <u>13-10 11-3/4"</u>	94	94	40 sx
9 5/8			
8 5/8	1724	1724	410 sx
7			
5 1/2			
4 1/2	5094	5094	640
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Fractured Alexander with 1000 gal acid, 115000# sand and 780 bbl. of fluid; avg. injection rate 8.3 BPM, avg. sand conc. 4.7 ppg, avg. treating pressure 1800 psi. Gas gauged 152 MCF/D. After treating Alexander Fractured Weir with 1000 gal. Fe acid and 90,000# of sand and 700 MCF nitrogen. Avg. injection rate 20 BPM; Avg. treating pressure 2600#  
Gas gauged 119 MCF/D from Weir.

Coal was encountered at no coal Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Alexander, Weir Depth 4951-4971 OA; 1943-2001 OA

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Clay			0	5		
RR			5	25		
Shale			25	30		
RR			30	50		
Sand			50	208		90' hole damp
Shale			208	265		
Sand			265	280		
Shale			280	310		
Sand			310	630		
Shale			630	735		
Sand			735	800		
Shale			800	885		
Sand			885	910		
Shale			910	1130		
Sand			1130	1260		
Shale			1260	1320		
Sand			1320	1410		
Shale			1410	1572		
Lime			1572	1592		
Shale			1592	1608		
Lime			1608	1690		
Sand			1690	1755		
Shale			1755	1920		
Sand			1920	1960		
Shale			1960	2025		

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JAN 22 1981  
OIL & GAS DIVISION  
DEPT. OF MINES

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
			2025	2040		
			2040	2360		
			2360	2515		
			2515	2685		
			2685	2700		
			2700	3815		
			3815	3905		
			3905	4900		
			4900	5000		Drillers T.D. 5097' Loggers T.D. 5105'
<u>Cement Record</u>						
<u>Conductor Pipe:</u>						
Ran 2 jts. (84') of 11-3/4" 47#/ft. K-55 casing and set at 94' RKB. Cemented with 40 sx of neat cement with one sack of Ca Cl. WOC 18 hrs.						
<u>Surface casing:</u>						
Ran 38 jts. (1724') of 8-5/8" 24#/ft. K-55 casing and set at 1735' RKB. Cemented with 310 sacks of 50-50 poz with 4% bentonite and tailed in with 100 sx neat with 2% Ca Cl WOC 10 hrs.						
<u>Production Casing:</u>						
Ran 123 jts. (5094') of 4-1/2" 11.6#/ft. N-80 casing and set at 5102'. Cemented with 40 sx of neat cement followed by 600 sacks of 50-50 poz with 10% Na Cl and 12.5#/sack. Gilsonite.						

Date January 21, 19 81

APPROVED Cities Service Company Owner

By Paul D. Phillips  
Paul D. Phillips, Region Operations Manager



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

RECEIVED

JUN 5 1980

OIL AND GAS WELL PERMIT APPLICATION

OIL & GAS DIVISION  
DEPT. OF MINES

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

DATE June 5, 1980

Surface Owner Charles Wellings  
Address West Union, WV 26436

Company Cities Service Company

Mineral Owner Lewis Maxwell, et ux  
Robert Holland, Agent  
Address West Union, WV 26436

Address Box 873, Charleston, WV 25323  
Farm Lewis Maxwell Acres 640

Coal Owner \_\_\_\_\_  
Address \_\_\_\_\_

Location (waters) Bluestone Run

Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

Well No. "D" #26, GW-1863 Elevation 895.92

District West Union County Doddridge

Quadrangle West Union

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 2-10-81.

INSPECTOR  
TO BE NOTIFIED Paul Garrett

ADDRESS Clarksburg, WV 26301

PHONE 622-3871

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 Feb. 1 <sup>1899</sup> ~~1898~~ by Lewis Maxwell et ux made to Columbian Carbon (now Cities Service) and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in Doddridge County, Book 33 Page 431

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.

Very truly yours, Cities Service Company  
(Sign Name)   
Sam J. Matthews Well Operator Region Prod. Manager

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

Box 873  
Street  
Charleston  
City or Town  
W. Va. 25323  
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.

47-017-2759 \_\_\_\_\_ PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by

BLANKET BOND

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 Spencer Enterprises NAME Sam J. Matthews  
 ADDRESS West Union, W. Va. ADDRESS Box 873, Charleston, WV 25323  
 TELEPHONE \_\_\_\_\_ TELEPHONE 304-344-8383  
 ESTIMATED DEPTH OF COMPLETED WELL: 5100' ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Alexander  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS X COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16 16" 65#	60	60	To surface
13 - 10			
9 - 5/8			
8 - 5/8 24#	1700	1700	To surface
7			
5 1/2			
4 1/2 11.6#	5100	5100	509 sx
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 62' FEET 148' SALT WATER 648 FEET  
 APPROXIMATE COAL DEPTHS 256'  
 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