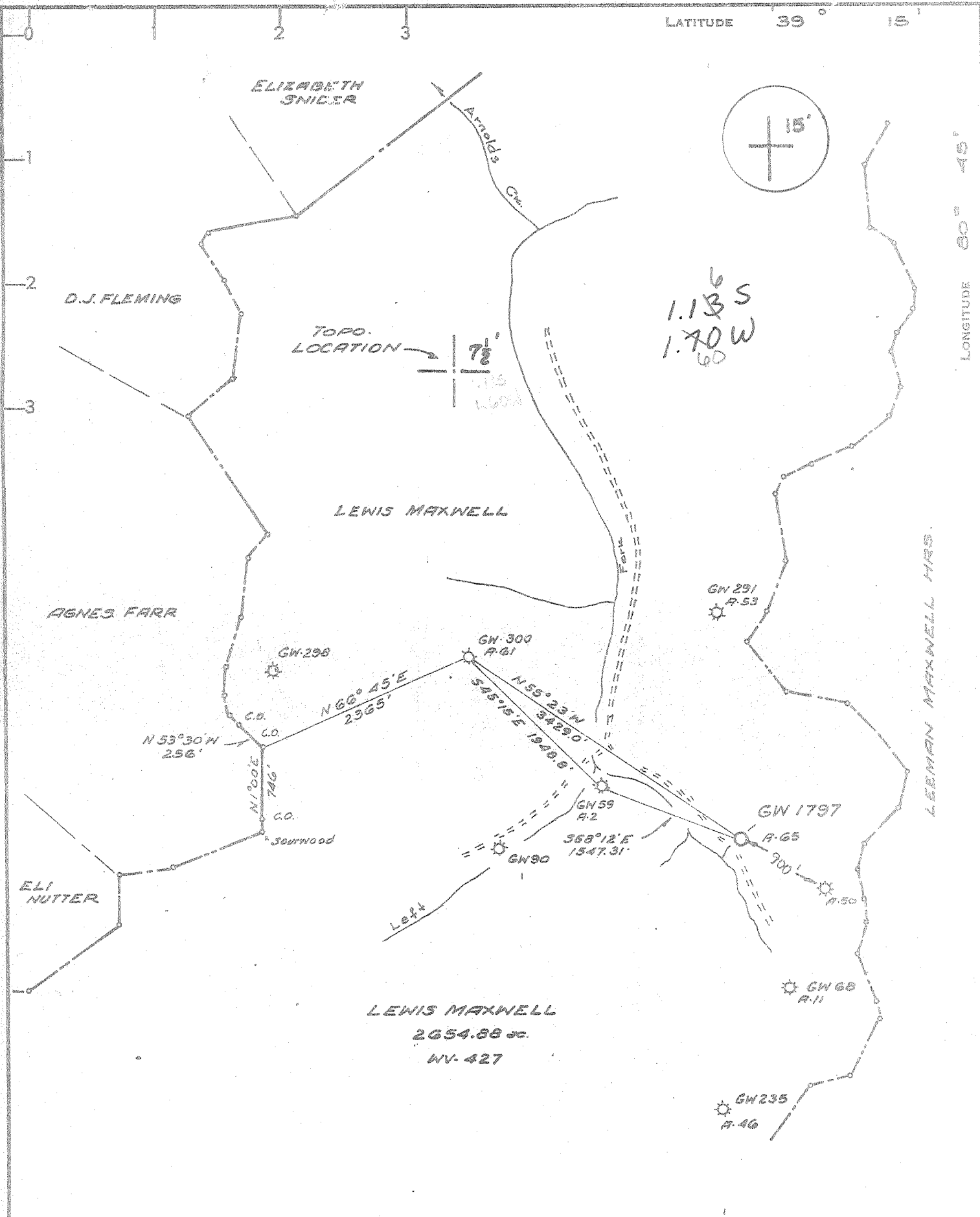


5/7/79



**CERTIFICATE**

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

"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 \_\_\_\_\_

COMPANY CITIES SERVICE COMPANY  
 ADDRESS BOX 873 CHARLESTON, W.V.  
 FARM LEWIS MAXWELL  
 MAP \_\_\_\_\_ ACRES 2654.88 LEASE NO. WV-427  
 WELL (FARM) NO. A-65 SERIAL NO. GW-1797  
 ELEVATION (SPIRIT LEVEL) 927.14'  
 QUADRANGLE OXFORD, HOLBROOK 15'  
 COUNTY DODDRIDGE DISTRICT WEST UNION  
 POINT OF PROVEN ELEVATION CITIES WELL A-61 ELEV. 1140  
 FILE NO. \_\_\_\_\_ DRAWING NO. W-9-79  
 DATE APRIL 28, 1979 SCALE 1" = 1320'

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

**WELL LOCATION MAP**

FILE NO. 47-017-2433

MAY 22 1979

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 24,000 LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

- DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

6-6 STRAIGHT FK-BLUESTONE CK 177

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

Date September 18, 1979

FORM IV-35  
(Obverse)

Operator's Well No. "A" #65, GW-1797

[08-78]

WELL OPERATOR'S REPORT 15  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

API Well No. 17 - 017 - 2433

WELL TYPE: Oil      / Gas X / Liquid Injection      / Waste Disposal      /  
(If "Gas", Production      / Underground storage      / Deep      / Shallow      /  
LOCATION: Elevation: 927.14 Watershed: Left Fork of Arnold's Creek  
District: West Union County: Doddridge Quadrangle: Oxford

WELL OPERATOR Cities Service Company DESIGNATED AGENT Sam J. Matthews  
Address Box 873 Address Box 873  
Charleston, WV 25323 Charleston, WV 25323

PERMITTED WORK: Drill X / Convert      / Drill deeper      / Redrill      / Fracture or stimulate  
Plug off old formation      / Perforate new formation      /  
Other physical change in well (specify)     

PERMIT ISSUED ON May 4, 1979

OIL & GAS INSPECTOR FOR THIS WORK:

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED

Name Paul Garrett  
Address 321 Beech Street  
Clarksburg, WV 25301

GEOLOGICAL TARGET FORMATION: Warren Riley Benson Alexander Depth Warren 3098' feet

Depth of completed well, 5050 feet Rotary X / Cable Tools       
Water strata depth: Fresh,      feet; salt,      feet. Riley 4450'  
Benson 4614'  
Alexander 4902'

Coal seam depths:      Is coal being mined in the area?     

Work was commenced June 23, 1979, and completed August 16, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft	New	Used	For drilling			Left in well
Conductor	13-3/8	BH-40	48#		x		60'	15 sx	Kinds
Fresh water									
Coal									Sizes
Intermediate	8-5/8	K-55 A	24#	x			2335'	590 sx	
Production	4-1/2	N-80 A	11.6#				5017'	130 sx	Depth set
Tubing	2-3/8	NU	4.6#	x					
Liners									
									Top Bottom
									4904 4912

OIL & GAS DIVISION  
DEPT. OF MINES

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 4902

Gas: Initial open flow, 30 Mcf/d Oil: Initial open flow,      Bbl/d

Final open flow, 353 Mcf/d Final open flow,      Bbl/d

Time of open flow between initial and final tests,      hours

Static rock pressure, 1550 psig (surface measurement) after 192 hours shut in

[If applicable due to multiple completion--]

Second producing formation      Pay zone depth      feet

Gas: Initial open flow,      Mcf/d Oil: Initial open flow,      Bbl/d

Final open flow,      Mcf/d Final open flow,      Bbl/d

Time of open flow between initial and final tests,      hours **OCT 9 1979**

Static rock pressure      psig (surface measurement) after      hours shut in

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.


Perforated Alexander interval 4904-12 with 2 shots/ft. Total of 17 holes.  
Treated with 1000 gal. NE acid 30,000# 80-100 sand and 60,000# 20-40 sand with clay stabilizer and citric acid. Blew down with 1300#. Avg. treating pressure 2400#  
Max. pressure 3200# AIR 35.2 B/M Avg. concen. 3#/gal. ISIP 1100# SIP 1000#

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			70	1460	
Sand & Shale			1460	1724	1724' Base Big Injun
Shale			1724	2083	
Berea Sand			2083	2092	
Sandy Shale			2092	2311	
Gordon Sand			2311	2330	
Sand & Shale			2330	2666	
Sand			2666	2671	
Shale			2671	2910	
Elizabeth Sand			2910	2914	
Sandy Shale			2914	2978	
Warren Sand			2978	3106	
Shale			3106	3520	
Speechly Sand			3520	3525	
Shale			3525	3746	
Balltown Sand			3746	3750	
Sandy Shale			3750	4178	
Bradford Sand			4178	4188	
Shale			4188	4450	
Riley Sand			4450	4456	
Shale			4456	4616	
Benson Sand			4616	4622	
Sandy Shale			4622	4870	
Alexander Sand			4870	4962	
Sandy Shale			4962	5050	T.D.

(Attach separate sheets to complete as necessary)

Cities Service Company  
Well Operator

By   
Its Sam J. Matthews  
Region Production Manager

**NOTE:** Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

MAY - 4 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 May 3, 1979

Surface Owner Robert S. Maxwell

Company Cities Service Company

Address West Union, WV 26456

Address Box 873, Charleston, WV 25323

Mineral Owner Lewis Maxwell, et ux.

Farm Lewis Maxwell Acres 2654.23

Address Robert L. Holland Agent

Location (waters) Left Fork of Arnold's Creek

Address Box 425, West Union, WV 26456

Well No. "A" #65, GW-1797 Elevation 927.14

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

District West Union County Doddridge

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

Quadrangle Oxford

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 1-7-80.

INSPECTOR  
TO BE NOTIFIED Paul Garrett

ADDRESS 321 Beech St., 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 August 18, 1905 by Lewis Maxwell made to Columbian Carbon Co. (now Cities Service) and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in Doddridge County, Book 23 Page 69

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) D. G. Oliver Well Operator Region Engr. 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.

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 unknown \_\_\_\_\_ NAME Sam J. Matthews \_\_\_\_\_  
 ADDRESS \_\_\_\_\_ ADDRESS Box 873, Charleston, WV 25323 \_\_\_\_\_  
 TELEPHONE \_\_\_\_\_ TELEPHONE 344-8383 \_\_\_\_\_  
 ESTIMATED DEPTH OF COMPLETED WELL: 5160' ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Benson & 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			
13 - <del>7</del> 3/8"	60'	60'	to surface
9 - 5/8			
8 - 5/8	2384'	2384'	to surface
7			
5 1/2			
4 1/2	5160'	5160'	1000'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 60' FEET SALT WATER 1197 FEET  
 APPROXIMATE COAL DEPTHS None  
 IS 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