

**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 William D. Grady L.L.S. No. 116  
 (N.B. No. 118 Pg. 12)

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY: CITIES SERVICE COMPANY  
 ADDRESS: P.O. Box 873 CHARLESTON, W.VA., 25323  
 FARM: EMMA LOWDEN ET AL  
 MAP: PART OF 145.7 AC ACRES: 80 LEASE NO. WV 6261  
 WELL (FARM) NO: A-1 SERIAL NO. GW 1865  
 ELEVATION (SPIRIT LEVEL): 661.58  
 QUADRANGLE: REEDY 1:24000 (SPENCER NW - 1:62500)  
 COUNTY: WIRT DISTRICT: REEDY'S  
 POINT OF PROVEN ELEVATION: U.S.G.S. DATUM (See Above)  
3M. ELEV 665 on North end of Concrete Culvert as shown.  
 DATE: APRIL 24 1980 DRAWING NO. \_\_\_\_\_ SCALE: 1" = 400'

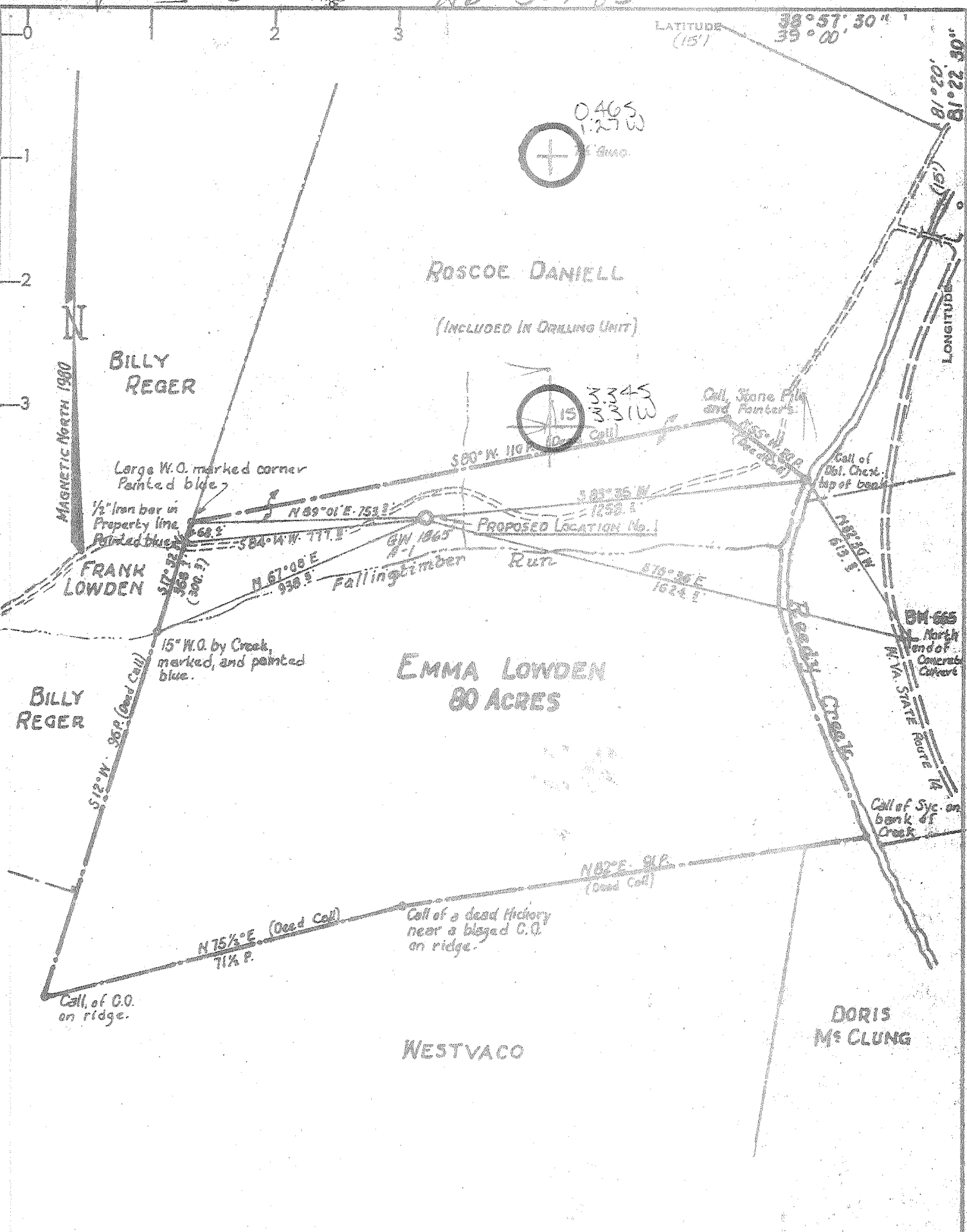
STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
 WELL LOCATION MAP  
105-870-P  
 FILE NO. \_\_\_\_\_

NC

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 162,500. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.  
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

*Deep Well*

1-0 **6850 NEWBURG** SEP 9 1980



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 Signed William D. Grady L.L.S. No. 116  
 (N.G. No. 118 P. 12)

COMPANY CITIES SERVICE COMPANY  
 ADDRESS P.O. Box 873 CHARLESTON, W.VA., 25323  
 FARM EMMA LOWDEN ET AL  
 MAP PART OF 145.140 ACRES 80 LEASE NO. WV 6021  
 WELL (FARM) NO. A-1 SERIAL NO. GW 1865  
 ELEVATION (SPIRIT LEVEL) 661.42  
 QUADRANGLE REEDY 1:24000 (SPENCER N.W. - 1:62500) NC  
 COUNTY WIRT DISTRICT REEDY  
 POINT OF PROVEN ELEVATION U.S.G.S. DATUM (See Above)  
BM. ELEV. 665 on North end of Concrete Culvert as shown  
 FILE NO. \_\_\_\_\_ DRAWING NO. \_\_\_\_\_  
 DATE APRIL 24, 1980 SCALE 1" = 400'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
 WELL LOCATION MAP  
**105-870**  
 FILE NO. \_\_\_\_\_

+ 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.



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Reedy

Permit No. 47-105-870

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

Company Cities Service Company  
Address Box 873, Charleston, WV 25323  
Farm Mrs. Emma Lowden, et al Acres 80  
Location (waters) Reedy Creek  
Well No. "A" #1, GW-1865 Elev. 661.58'  
District Reedy County Wirt 673 K  
The surface of tract is owned in fee by Emma Lowden  
Address Rt. 1, Palestine, WV 26160  
Mineral rights are owned by same  
Address \_\_\_\_\_  
Drilling Commenced 7/19/80  
Drilling Completed 8/15/80 (P&A)  
Initial open flow \_\_\_\_\_ cu. ft. \_\_\_\_\_ bbls.  
Final production \_\_\_\_\_ cu. ft. per day \_\_\_\_\_ bbls.  
Well open \_\_\_\_\_ hrs. before test \_\_\_\_\_ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10 3/8	61.5	61.5	110 sx Neat
9 5/8	2396	2396	670 sx Lite Poz
8 5/8			100 sx Neat
7	6355	1434	150 sx Neat
5 1/2			
4 1/2			
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Coal was encountered at no coal Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water 5571 Feet \_\_\_\_\_  
Producing Sand \_\_\_\_\_ Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand	Gray	Hard	15	74		15' water
Red Rock	Red	Soft	74	105		
Sand	Gray	Hard	105	220		
Red Rock	Red	Soft	220	230		
Sand	Gray	Hard	230	300		
Red Rock	Red	Soft	300	345		
Shale	Gray	Med.	345	571		
Sand	Gray	Med.	571	623		
Shale	Gray	Soft	623	637		
Sand	Gray	Med.	637	873		
Sand & RR	Gray & Red	Hard	873	1094		
Sand	Gray	Hard	1094	1175		
Sand & RR	Gray & Red	Hard	1175	2031		
Shale	Gray	Soft	2031	2395		
Coffee Sh	Br	Soft	2395	2400		
Siltstone	Gr	Med	2400	2417		
Shale	Gr	Soft	2417	5304		
Lime	Gr	Hard	5304	5505		
Oriskany		Hard	5505	5599		
Brown Sh	Br	Soft	5599	5626		5571' water
Shale & Sand GR		Soft	5626			Oriskany top electric log 5521'

**RECEIVED**  
AUG 23 1980  
OIL & GAS DIVISION  
DEPT. OF MINES

PI Newburg 6440 - 6449

OTD 6535 LTD - 6530

(over)

\* Indicates Electric Log tops in the remarks section.

Lower log missing



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

APR 30 1980

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 April 30, 1980

Surface Owner Emma Lowden (Mrs.)

Company Cities Service Company

Address Rt. 1 Palestine, WV 26160

Address Box 873, Charleston, WV 25323

Mineral Owner Same

Farm Emma Lowden, et al 80 Acres Pt. of 145.1 AC

Address \_\_\_\_\_

Location (waters) Falling Timber Run of Reedy Creek

Coal Owner Same

Well No. "A" #1, GW-1865 Elevation 661.58'

Address \_\_\_\_\_

District Reedy County Wirt

Coal Operator Not Operated

Quadrangle Reedy 1:24000

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 1-8-81.

INSPECTOR  
TO BE NOTIFIED Paul Goodnight

ADDRESS Smithville, WV 26178

PHONE 477-3660

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 March 6 19 80 by Emma Lowden made to Cities Service Co. and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in Wirt County, Book \_\_\_\_\_ Page \_\_\_\_\_

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 same 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 Reg. 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.

BLANKET BOND

105  
WIRT-870 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

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 Ray Resources NAME Sam J. Matthews  
 ADDRESS 630 Commerce Square, Charleston, WV ADDRESS Box 873, Charleston, WV 25323  
 TELEPHONE 344-8393 TELEPHONE 304-344-8383  
 ESTIMATED DEPTH OF COMPLETED WELL: 6850 ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Newburg  
 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.
<del>20</del> - 16 65# H-40	60'		Cement to surface
13 - 10			
9 - 5/8 36# K-55	2400'		Cement to surface
8 - 5/8			
7 23# K-55	6450'		Cement bottom 500'
5 1/2			
4 1/2 11.6# N-80	6850		Cement 400'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 45' FEET SALT WATER 1930 FEET  
 APPROXIMATE COAL DEPTHS None  
 IS COAL BEING MINED IN THE AREA? No BY WHOM? NA

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

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

RECEIVED  
AUG 22 1980

AFFIDAVIT OF PLUGGING AND FILLING WELL

AUG 22 1980

AFFIDAVIT SHOULD BE MADE IN TRIPPLICATE. ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THE FOLLOWING ADDRESSES.

NA  
COAL OPERATOR OR OWNER

Cities Service Company  
NAME OF WELL OPERATOR

ADDRESS

Box 873, Charleston, WV 25323  
COMPLETE ADDRESS

COAL OPERATOR OR OWNER

August 20, 19 80  
WELL AND LOCATION

ADDRESS

Reedy District

Mrs. Emma Lowden, et al  
LEASE OR PROPERTY OWNER

Wirt County

Rt. 1, Palestine, WV 26160  
ADDRESS

Well No. "A" #1, GW-1865

Emma Lowden, et al Farm

STATE INSPECTOR SUPERVISING PLUGGING... Paul Goodnight, Smithville, WV 26178

AFFIDAVIT

STATE OF WEST VIRGINIA,  
County of Wirt } ss:

Thomas J. Osborne and Joe Moles

being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Cities Service Company well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 13th day of August, 19 80, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD FORMATION	FILLING MATERIAL	PLUGS USED SIZE & KIND	CASING	
			CSG PULLED	CSG LEFT IN
Newburg	Bentonite Gel 6445-6245	52 sx Neat	4921'	1434' - 7" OD
Devonian Shale	Bentonite Gel 2462-2322	37 sx Neat		2396' - 9-5/8" OD
Surface	Bentonite Gel 3' to Surface	12 sx Neat		61.5' 13-3/8" OD
COAL SEAMS			DESCRIPTION OF MONUMENT	
(NAME) No coal			7' joint of 9-5/8" casing	
(NAME)			GW-1865	
(NAME)			47-105-870	
(NAME)				

and that the work of plugging and filling said well was completed on the 14 day of August, 19 80.

And further deponents saith not.

Sworn to and subscribed before me this 14th day of August, 19 80.

My commission expires: 4-7-89

*Thomas J. Osborne*  
*Joe Moles*  
Commissioner Notary Public.

Permit No. 47-105-870