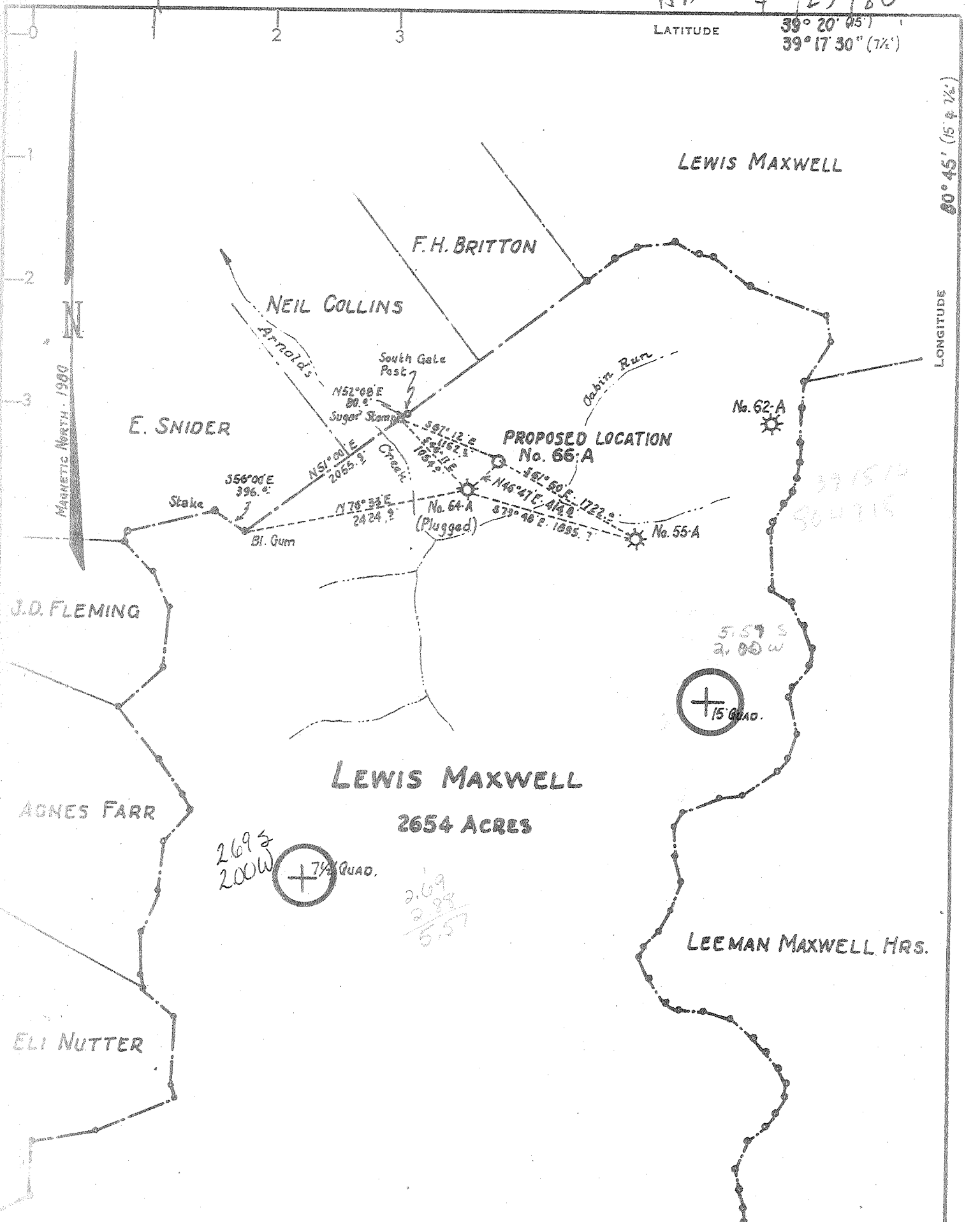


H-7 4 125 180
 LATITUDE 39° 20' 05"
 39° 17' 30" (7 1/2')

LONGITUDE 80° 45' (15 1/2')



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 S. Smully* L.L.S. No. 116

<input checked="" type="checkbox"/>	NEW LOCATION
<input type="checkbox"/>	RECONDITION
<input type="checkbox"/>	DRILL DEEPER
<input type="checkbox"/>	ABANDONMENT

COMPANY **CITIES SERVICE OIL COMPANY**
 ADDRESS **P.O. Box 873 CHARLESTON, W.VA. 25323**
 FARM **LEWIS MAXWELL**
 MAP ACRES **2654** LEASE NO. **WV-427**
 WELL (FARM) NO. **66-A** SERIAL NO. **GW-1830**
 ELEVATION (SPIRIT LEVEL) **1100.35'**
 QUADRANGLE **WEST UNION - 1:24000 & WEST UNION S.E.**
 COUNTY **DODDRIDGE** DISTRICT **WEST UNION**
 POINT OF PROVEN ELEVATION **U.S.G.S. DATUM - WELL No. 64-A and WELL No. 55-A**
 FILE NO. **APRIL 17, 1980** DRAWING NO. **W-12-80**
 DATE **APRIL 17, 1980** SCALE **1" = 1320'**

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. **017-2692**

+ 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 ORIGINAL TRACING.

ALEXANDER 5250
 6-6 STRAIGHT FR-BLUESTONE CK 133 MAY 29 1980



RECEIVED

NOV 14 1980

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD

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

Quadrangle West Union
Permit No. 47-017-2692

Company Cities Service Company
Address Box 873, Charleston, WV 25323
Farm Lewis Maxwell et ux Acres 2654
Location (waters) Arnolds Creek
Well No. "A" #66, GW-1830 Elev. 1060'
District West Union County Doddridge
The surface of tract is owned in fee by Mrs. Everett Maxwell
Address West Union, WV 26456
Mineral rights are owned by Robert L. Holland, Agent
Address Box 425, West Union, WV 26456
Drilling Commenced 5-27-80
Drilling Completed 10-15-80
Initial open flow 0 cu. ft. 0 bbls.
Final production 960 M cu. ft. per day 0 bbls.
Well open 4 hrs. before test 900 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10" 11-3/4"	80	80	surface (40 sx)
9 5/8			
8 5/8	1885.35	1885.35	surface (425 sx)
7			
5 1/2			
4 1/2 "	5201	5201	662.2 cu. ft. (430 sx)
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Broke down Weir perfs at 2450# with 2000 gal. mud acid containing 45 perf balls. Bailed out
Opened well and flowed back 20 BLW. Ran bailer to knock out perf balls. Pumped 80 bbl. gel
and 45 MCF N2 pad. Fraced Weir with Dowell nitrogen energized crosslinked frac system
containing 30000# 80/100 sand and 60000# 20/40 sand with 250 cu. ft./bbl. N2. Blender
paddles locked up twice, 10 bbl. of gel run without sand. Max. TP 2700#, Min. TP 2200#, Avg.
TP 2250#, Final TP 2250#, ISIP 1700#, 5 min. SIP 1600#, 10 Min. SIP 1550# 15 Min. SIP 1500#

Coal was encountered at none Feet _____ Inches (Continued on back)
Fresh water 209' Feet _____ Salt Water None Feet _____
Producing Sand Alexander Depth 5105-5134'
Weir 2117-2106

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			0	10		
RR			10	30		
Sand			30	35		
Shale			35	50		
Sand			50	110		
RR			110	135		
Sand			135	175		
RR Shale			175	207		
Sand			207	220		
RR Shale			220	290		
Sand			290	320		
Shale			320	362		
Sand			362	400		
Shale			400	460		
Sand			460	475		
RR Shale			475	525		
Sand			525	535		
RR Shale			535	740		
Sand			740	770		
RR Shale			770	915		
Sand			915	985		
Shale			985	1015		
Sand			1015	1045		
Shale			1045	1400		

Water 209'

DEC

Formation	Color	Hard or Soft	Top Feet _g	Bottom Feet	Oil, Gas or Water	• Remarks
<u>Weir Treatment continued</u>						
Total sand laden fluid 582 bbl. 35 bbl. displacement fluid. 240 bbl. pad. TL&T 857 bbl. 190 MCF Total N2. AIR 30 BPM Min. Sand conc. 2 ppg, avg. 3.7 ppg Max. 10 ppg.						
Sand			1400	1435		
Shale			1435	1475		
Sand			1475	1516		
Shale			1516	1555		
Sand			1555	1660		
Shale			1660	1707		
Sand			1707	1774		
Lime			1774	1880		
Sand			1880	1940		Gas 1930'
Shale			1940	2080		
Sand			2080	2150		
Shale			2150	2390		
Sand			2390	2590		
Shale			2520	2610		
Sand			2610	2652		
Shale			2652	3225		
Sand			3225	3350		
Shale			3350	3400		
Sand			3400	3510		3480' Gas
Shale			3510	3600		
Sand			3600	3607		
Shale			3607	4000		
Sand			4000	4020		
Shale			4020	4516		
Sand			4516	4535		
Shale			4535	4640		
Sand			4640	4660		
Shale			4660	4880		
Sand			4880	4850		
Shale			4850	5070		
Sand	ALEX.		5070	5150		
Shale			5150			
dr/r TD on log 5253						

Date November 12, 19 80

APPROVED Cities Service Company Owner



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

RECEIVED
APR 23 1980
OIL & GAS DIVISION
DEPT. OF MINES

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

DATE April 23, 1980

Surface Owner Mrs. Everett Maxwell
Address West Union, WV 26456
Mineral Owner Lewis Maxwell, et ux
Robert L. Holland, Agent
Address Box 425, West Union, WV 26456
Coal Owner
Address
Coal Operator
Address

Company Cities Service Company
Address Box 873, Charleston, WV 25323
Farm Lewis Maxwell "A" Acres 2654
Location (waters) Arnolds Creek
Well No. "A" #66, GW-1830 Elevation 1060 GL
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 12-28-80.

INSPECTOR
TO BE NOTIFIED Paul Garrett

ADDRESS 321 Beech Street, 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 8-18-1905 by Lewis Maxwell made to Columbian Carbon (now Cities Service) and recorded on the day of 19 in Doddridge County, Book 23 Page 69

X 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, Cities Service Company
(Sign Name) Robert S. Oliver
Well Operator

Address
of
Well Operator

Box 873
Street
Charleston, WV 25323
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 BOND

47-017-2692

PERMIT NUMBER

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

Signed by Robert S. Oliver

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, WV _____ ADDRESS Box 873, Charleston, WV 25323 _____
 TELEPHONE _____ TELEPHONE 304-344-8383 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 5250' _____ 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	LIFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
11-3/4 11-3/4 42#	60	60	to surface
9 - 5/8			
8 - 5/8 24#	1860	1860	to surface
7			
5 1/2			
4 1/2 11.6#	5250	5250	480 sacks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom /

APPROXIMATE FRESH WATER DEPTHS 185 FEET 200 SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS _____ No coal expected _____
 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