

Latitude 39° 20'

THE ACCURACY OF THIS SURVEY IS WITHIN THE LIMITS PRESCRIBED BY THE OIL AND GAS DIVISION OF THE DEPARTMENT OF MINES.

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.

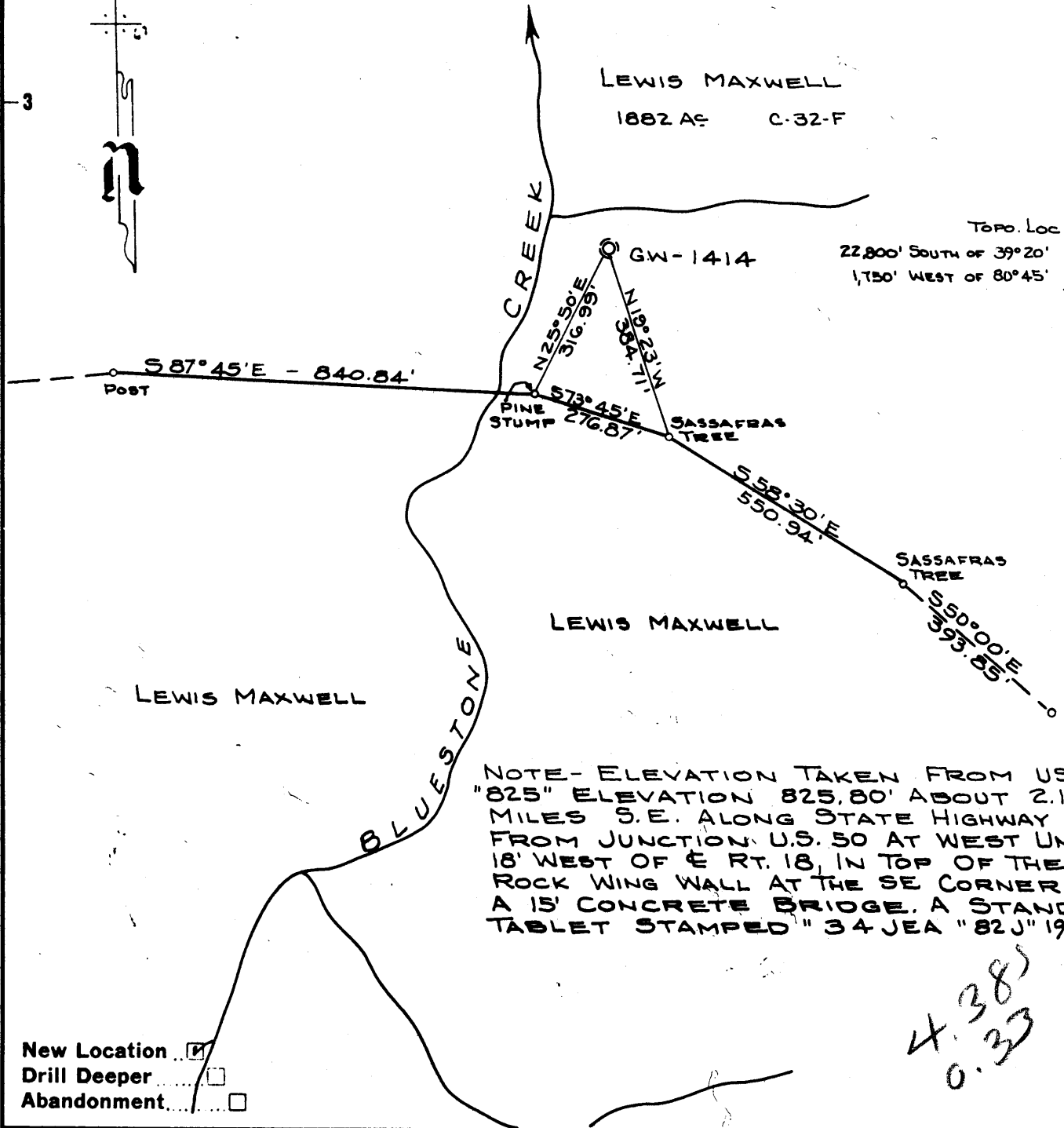
*Wendell Moore*

Longitude 80° 45'



LEWIS MAXWELL  
1882 ACRES C-32-F

Topo. Loc.  
22,800' South of 39° 20'  
1,750' West of 80° 45'



NOTE - ELEVATION TAKEN FROM USGS "825" ELEVATION 825.80' ABOUT 2.1 MILES S.E. ALONG STATE HIGHWAY 18 FROM JUNCTION U.S. 50 AT WEST UNION, 18' WEST OF E. RT. 18, IN TOP OF THE ROCK WING WALL AT THE SE CORNER OF A 15' CONCRETE BRIDGE. A STANDARD TABLET STAMPED "34 JEA "82J" 1962.

4.38  
0.33

- New Location
- Drill Deeper
- Abandonment

Company CITIES SERVICE OIL CO.  
 Address Box 873 - CHARLESTON, W.VA.  
 Farm LEWIS MAXWELL  
 Tract \_\_\_\_\_ Acres 1882 Lease No. C-32-F  
 Well (Farm) No. F-21 Serial No. GW-1414  
 Elevation (Spirit Level) 836.46' SE  
 Quadrangle WEST UNION-7 5437 - W-031  
 County DODDRIDGE District WEST UNION  
 Engineer Wendell Moore  
 Engineer's Registration No. 2113  
 File No. \_\_\_\_\_ Drawing No. W-19-63  
 Date 3 JUNE 63 Scale 1" = 300'

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

WELL LOCATION MAP  
 FILE NO. DOD-988

- + Denotes location of well on United States Topographic Maps, scale 1 to 62500 latitude and longitude lines being represented by border lines as shown.
- Denotes one inch spaces on border line of original tracing.

THW

099



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION 6

Quadrangle West Union 7 SW

Permit No. Dod-988

WELL RECORD

Oil or Gas Well Gas

Company Cities Service Oil Company  
Address P. O. Box 873, Charleston 23, W. Va.  
Farm Lewis Maxwell Acres 1882  
Location (waters) Bluestone Creek  
Well No. F-21, GW-1414 Elev. 836.46'  
District West Union County Doddridge  
The surface of tract is owned in fee by Leeman Maxwell III  
Address West Union, W. Va.  
Mineral rights are owned by Mrs. Grace Gaylord, et al  
420 Kemmerer Road Address State College, Pa.  
Drilling commenced 6-21-63  
Drilling completed 7-16-63  
Date Shot not shot From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_  
Open Flow 12 /10ths Water in 1 Inch  
\_\_\_\_\_/10ths Merc. in. \_\_\_\_\_ Inch  
Volume 36,500 Cu. Ft.  
Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED not acidized

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<b>Anchor Packer</b> Size of <u>4-1/2"</u>
13			
10 3/4" 52#	.95'	95'	Depth set <u>1,585'</u>
8 1/4" 24#	487'	487'	
7" 23#	823'	pulled	
5 1/2" 9.5#	1713'	1713'	
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_

See reverse side

COAL WAS ENCOUNTERED AT 160 FEET 24 INCHES  
\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

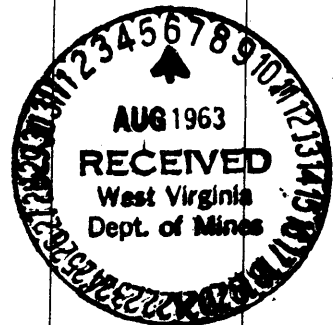
WELL FRACTURED see reverse side

RESULT AFTER TREATMENT 2# spring gauge thru 3" = 2221 MCF

ROCK PRESSURE AFTER TREATMENT 72 hours 650# - 96 hours 650#

Fresh Water 364' 795' Feet Salt Water \_\_\_\_\_ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Clay			0	5			
Sand			5	91			
Slate			91	97			
Red Rock			97	105			
Lime			105	125			
Slate and Shells			125	160			
Coal			160	162			
Lime			162	190			
Slate and Shells			190	350			
Lime			350	370			
Slate and Shells			370	400	F. water	364'	hole full
Lime			400	425			
Red Rock			425	434			
Lime			434	445			
Slate and Shells			445	483			
Lime			483	485			
Slate and Shells			485	525			
Red Rock			525	550			
Slate and Shells			550	595			
Red Rock			595	605			
Lime			605	650			
Sand			650	687			
Slate and Shells			687	710			
Sand			710	795	F. water	795'	show
Slate			795	810			
Gritty Lime			810	859			
Sand			859	920			



Formation	Color	Hard or Soft	Top <sup>6</sup>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			920	926			
Sand			926	960			
Slate			960	968			
Sand			968	985			
Lime			985	995			
Sand			995	1106			
Lime			1106	1120			
Slate and Shells			1120	1177			
Gritty Lime			1177	1200			
Lime			1200	1230			
Slate and Shells			1230	1270			
Sand			1270	1315	Gas	1285'	show
Slate			1315	1323			
Black Lime			1323	1350			
Slate and Shells			1350	1380			
Sand			1380	1385			
Slate and Shells			1385	1444			
Lime			1444	1460			
Slate and Shells			1460	1470			
Lime			1470	1515			
Sand			1515	1530			
Pencil Cave, Slate			1530	1531	Gas	1535'	show
Big Lime			1531	1605			
Big Injun			1605	1690	Gas	1620-30' 4/10 W. 1"=21M	
Slate and Shells			1690	1708	Gas	1648-65'incr. to 12/10 W.	
Lime			1708	1740			1" = 36M
Total depth-----				1740'			
Plugged back depth-----				1700'			
Ran Schlumberger Logs, Temperature, Gamma Ray, Caliper, Induction and Density Logs.							
Perforated <u>1619'</u> <u>1633'</u> and <u>1678'</u> 4 shots/foot.							
<b>FRACTURED THE BIG INJUN 7-25-63</b>							
Pumped in 500 gallons retarded acid and 1,000 gallons regular acid. Broke down at 1800#. Used 30,000# sand, 22,000 gallons fluid, 18,000 gallons sand laden fluid. Average injection rate 27-1/2 bbls/minute. Used 130,000 standard cubic feet of nitrogen. Average pressure 1941#. Used 6 perf balls at 400 bbls-50# increase. Used 4 perf balls at 550 barrels-no increase in pressure. Opened well - flowed - left open overnight. Final open flow 2,221 MC F							
<b>CASING RECORD</b>							
6-27-63	Ran 8-5/8" casing on shoe 483'DLM - set in 20' red mud.						
7-3-63	Ran 7" casing on shoe 814'DLM - set in 20' red mud - pulled.						
7-19-63	Ran 4-1/2" 9.5# casing at 1740' with shoe on bottom - 3 centralizers - 1 on bottom joint - 1 on 4th and 1 on 7th. Set Anchor Packer at 1,585' - R/L nipple at 1,315' - cemented with 42 sacks.						

Date August 5, 1963

APPROVED Cities Service Oil Company, Owner

By W. S. Moore, Division Sup't  
(Title)