

Latitude 39° 20'

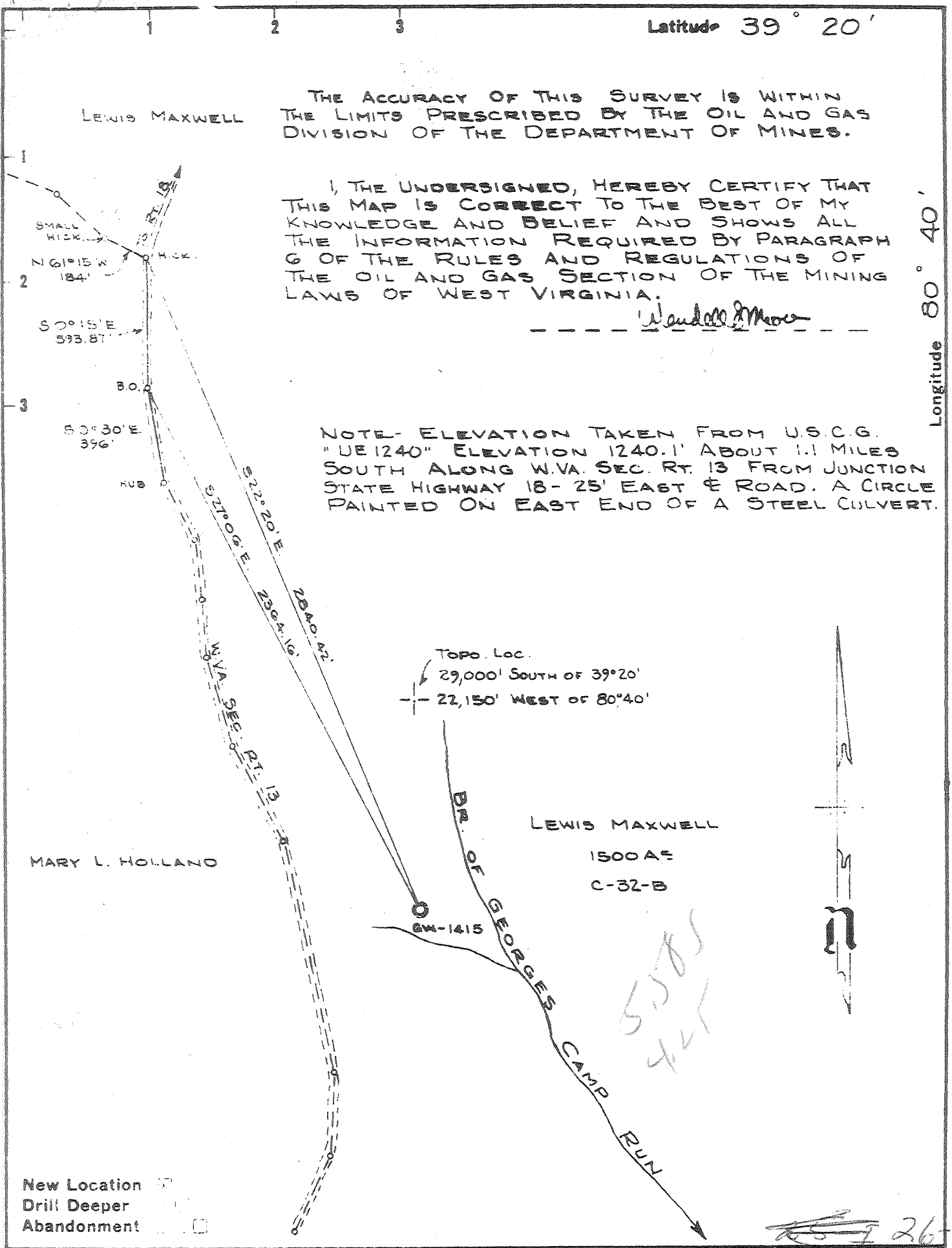
Longitude 80° 40'

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

NOTE- ELEVATION TAKEN FROM U.S.C.G. "UE 1240" ELEVATION 1240.1' ABOUT 1.1 MILES SOUTH ALONG W.VA. SEC. RT. 13 FROM JUNCTION STATE HIGHWAY 18- 25' EAST & ROAD. A CIRCLE PAINTED ON EAST END OF A STEEL CULVERT.



Company CITIES SERVICE OIL Co.
 Address BOX 573- CHARLESTON, W.VA.
 Farm LEWIS MAXWELL
 Tract PART OF 1500 AC. Acres 307 Lease No. C-32-B
 Well (Farm) No. B-17 Serial No. GW-1415
 Elevation (Spirit Level) 1067.98
 Quadrangle CENTERPOINT-9 S-558-W-429
 County DODDRIDGE District NEW MILTON
 Engineer Wendell Moore
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-18-63
 Date 31 MAY 63 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. DOD-1011

+ 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.

Sampler 1500-1890 399-1890



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 7

Quadrangle Centerpoint 9 SW

WELL RECORD

Gas

Permit No. Dod-1011

Oil or Gas Well (KIND)

Company Cities Service Oil Co.
Address P. O. Box 873, Charleston 23, W. Va.
Farm Lewis Maxwell Acres 1.500
Location (waters) Br. George's Camp Run
Well No. B-17 - GW-1415 Elev. 1067.98'
District New Milton County Doddridge
The surface of tract is owned in fee by R. S. Maxwell
Star Route Address West Union, W. Va.
Mineral rights are owned by Mrs. Grace Gaylord, et al
420 Kemmerer Rd. Address State College, Pa.

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<u>Parmco Anchor</u>
13			Size of <u>4-1/2"</u>
<u>10 3/4" 32#</u>	<u>65'</u>	<u>65'</u>	Depth set <u>1,695'</u>
<u>8 1/2" 24#</u>	<u>450'</u>	<u>450'</u>	Perf. top
<u>7" 23#</u>	<u>985'</u>	<u>pulled</u>	Perf. bottom
<u>4 1/2" 9.5#</u>	<u>1889'</u>	<u>1889'</u>	Perf. top
3			Perf. bottom
2			
Liners Used			

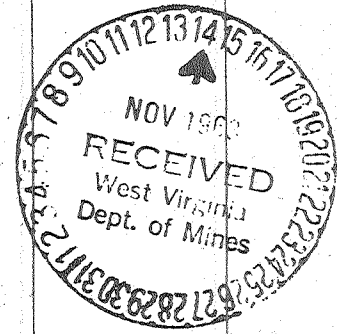
Drilling commenced 10-3-63
Drilling completed 10-28-63
Date Shot not shot From _____ To _____

With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume show Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED not acidized
WELL FRACTURED see reverse side

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
see reverse side
COAL WAS ENCOUNTERED AT none FEET _____ INCHES
FEET _____ INCHES FEET _____ INCHES
FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT 40/10 M. 3 = 2,214M
ROCK PRESSURE AFTER TREATMENT 48 hours 190#
Fresh Water _____ Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Red Rock			0	35			
Lime			35	40			
Gritty Lime			40	55			
Slate			55	80			
Lime			80	124			
Red Rock			124	170			
Sand			170	234			
Slate and Shells			234	239			
Sand			239	264			
Slate and Shells			264	270			
Red Rock			270	300			
Sandy Shale			300	318			
Slate and Shells			318	325			
Black Lime			325	365			
Red Rock			365	370			
Slate and Shells			370	440			
Pink Rock			440	442			
Lime			442	473			
Red Rock			473	522			
Slate and Shells			522	570			
Lime and Pink Shale			570	622			
Lime			622	634			
Slate			634	668			
Lime			668	690			
Red Rock			690	710			
Lime			710	730			
Pink Shale			730	750			



Formation	Color	Hard or Soft	Top 7	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate & Shells			750	885			
Lime			885	974			
Gas Sand			974	1015			
Slate and Shells			1015	1025			
Sand			1025	1095			
Slate and Shells			1095	1120			
Sand			1120	1135			
Black Slate			1135	1175			
Sand			1175	1260			
Black Slate			1260	1285			
Lime			1285	1335			
Sand			1335	1350			
Black Slate			1350	1375			
Slate and Shells			1375	1425			
Sand			1425	1475			
Slate			1475	1490			
Shale			1490	1528			
Slate			1528	1548			
Black Lime			1548	1560			
Red Rock			1560	1600			
Gritty Lime			1600	1620			
Pink Rock and Shell			1620	1644			
Slate and Shells			1644	1658			
Lime			1658	1680			
Blue Monday Sand			1680	1710	Oil	1685'	show
Big Lime			1710	1775			
Big Injun Sand			1775	1800			
Break			1800	1808	Schlumberger Log showed Gas		
Sand			1808	1850	1710'	1784' 1820'	
Slate			1850	1890			
Total depth-----				1890'	DLM=1885'	Schl. Meas.	
Plugged back depth-----				1865'			
Schlumberger Log showed Big Inj.			1775	1845			
<p>Ran Schlumberger Logs, Gamma Ray, Temperature, Caliper, Induction and Density Perforated 1780-86' 1815-17' 1820-23' 2 shots/ft. 1841' 4 90° shots in one plane.</p>							
<p>FRACTURED THE BIG INJUN 11-5-63</p> <p>Show of gas before fracturing. Injected 500 gallons MCA and 1,500 gallons regular acid-broke down at 1,000#. Started sand 1/2#/gallon-went to 2#/gallon maximum. Maximum pressure 2,700# - minimum pressure 2,300#. Used 46,000# sand. Injection rate 31.8 bpm. Total water 25,480 gallons, 21,000 gallons sand and water, 1,680 gallons flush, 120,000 SCF Nitrogen, 12 perf balls. Shut in at 1,000#. Pressure raised gradually during treatment-opened well. Cleaned self - Final open flow 40/10 M. 3" = 2,214M - well dry</p>							
<p>CASING RECORD</p>							
10-4-63	Ran 10-3/4" casing at 65'DLM						
10-10-63	Ran 8-5/8" casing with shoe at 446'DLM-set in 20' red mud						
10-16-63	Ran 7" with shoe at 979'DLM - set in 20' red mud-pulled later.						
10-29-63	Ran 4-1/2" 9.5# casing on shoe with 3 centralizers - set at 1890'DLM-float insert at 1822' - Parmco Anchor Packer set at 1695' - top of R/L nipple at 1,090'. Pumped in 75 sacks Hi Early Cement. First 10 sacks mixed with Aquagel. Pumped plug to 1800'.						

Date November 13, 1963

APPROVED Cities Service Oil Company, Owner

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