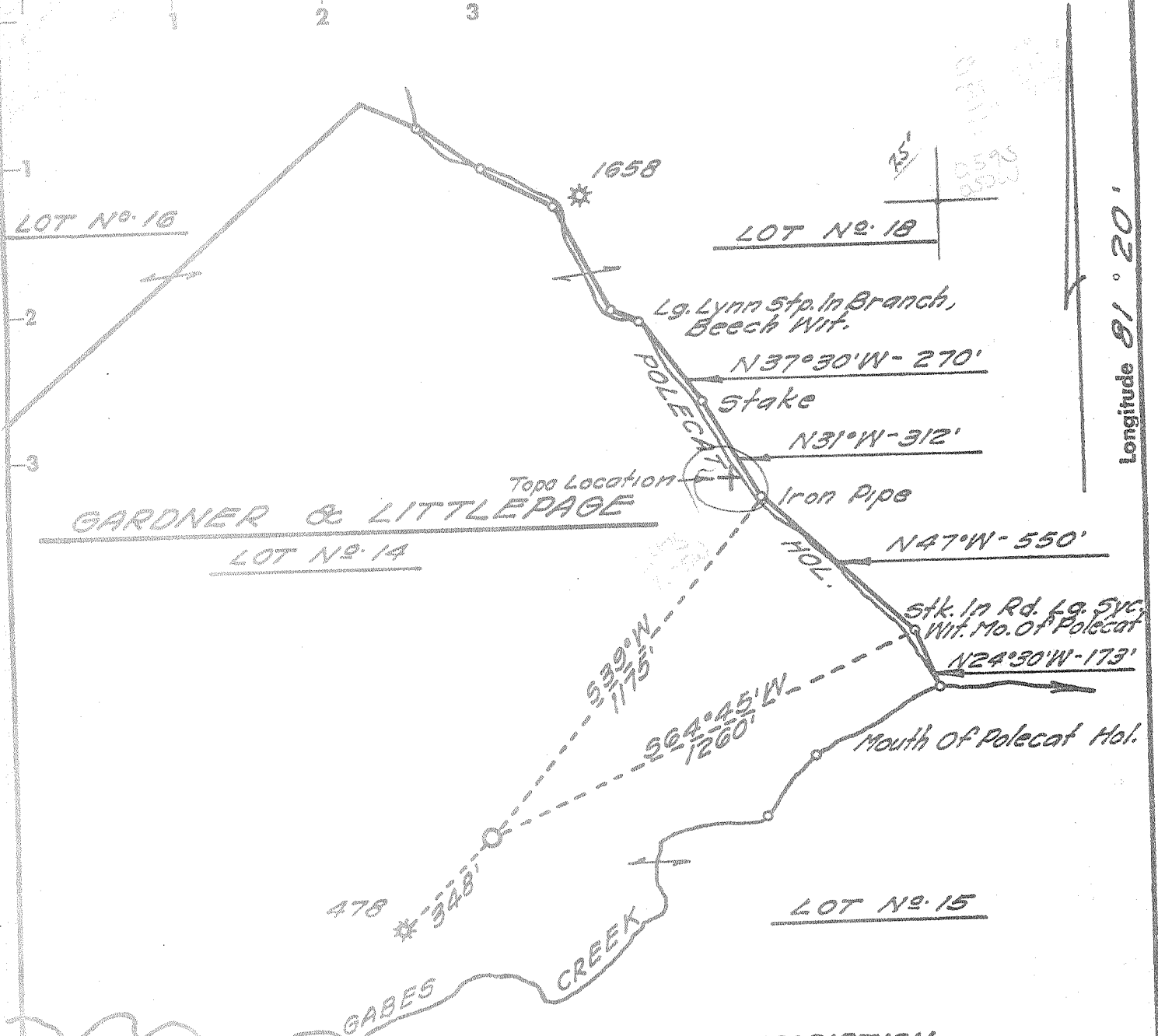


Latitude $38^{\circ} 35'$

Longitude $81^{\circ} 20'$



BENCH MARK DESCRIPTION

U.S.G.S. 'UE' Square cut in South East Edge of Concrete Headwall West Side of W.Va. U.S. Route No. 119 & 14 Across From Left Hand Grocery Store in Front of R. G. Jeff Home. Elev. 632.80'

OGIS 75' loc	15'
$38^{\circ} 32' 30''$.58 3.462
$81^{\circ} 22' 30''$.51 2.76
SK	

ACCURACY - One Part in 200

- Fracture
- Before 6/5/29
- New Location
- Drill Deeper
- Redrill
- 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 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.
The accuracy of this survey is within the limits and as prescribed in Paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.

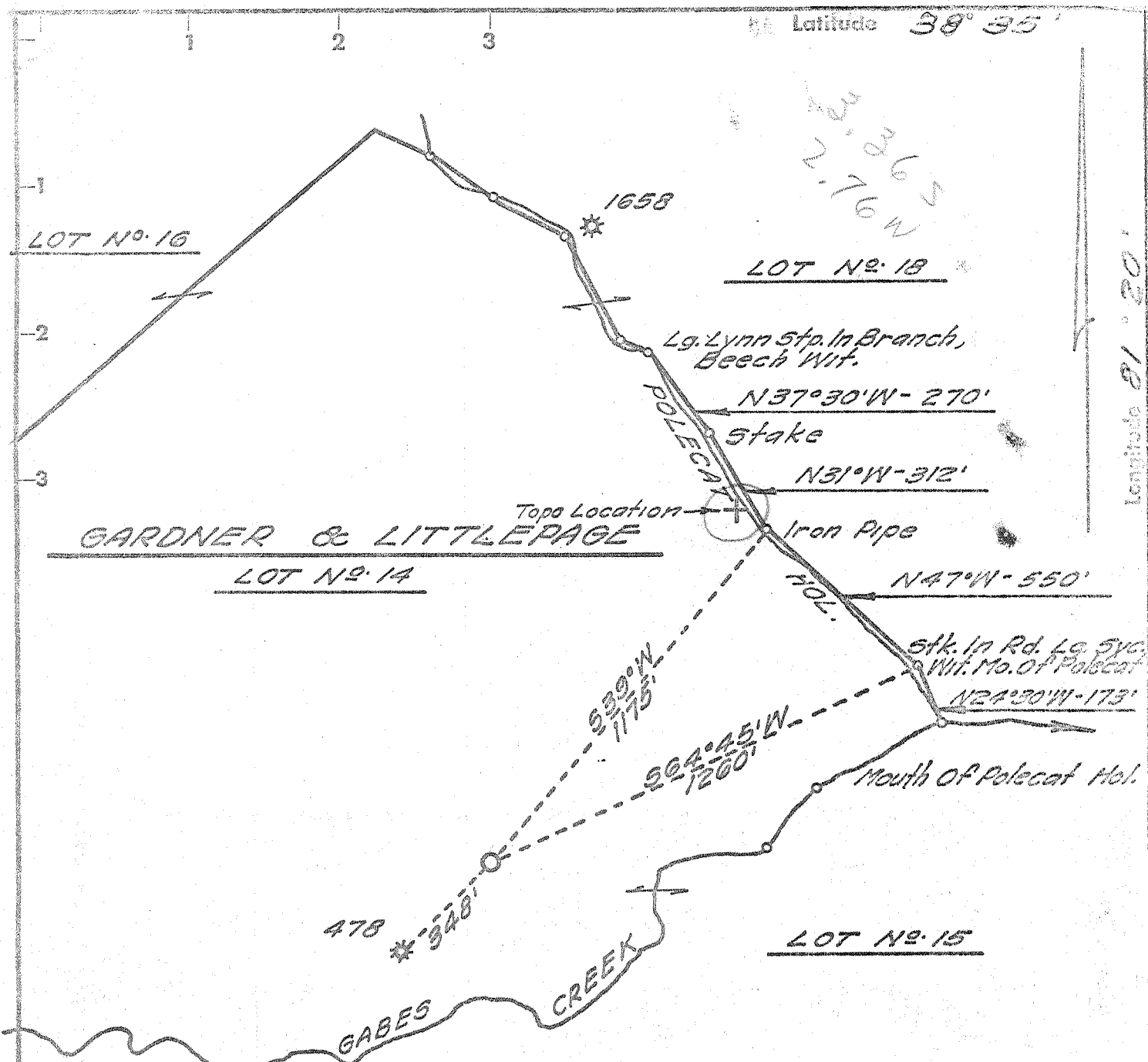
Company UNITED FUEL GAS CO.
 Address CHARLESTON, W.VA.
 Farm GARDNER & LITTLEPAGE
 Tract _____ Acres 1600 Lease No. 592
 Well (Farm) No. _____ Serial No. 9511-7
 Elevation (Spirit Level) 888.39'
 Quadrangle WALTON SW
 County KANAWHA District BIG SANDY
 Engineer Adrian E. Hardman
 Engineer's Registration No. 2330
 File No. 74-71 Drawing No. _____
 Date SEPT. 3 '69 Scale 1" = 400'

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

WELL LOCATION MAP
 FILE NO. KAN-2433-P

+ 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.

Deep Well MAR 23 1970



GARDNER & LITTLEPAGE

BENCH MARK DESCRIPTION

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Company UNITED FUEL GAS CO.
 Address CHARLESTON, W. VA.
 Farm GARDNER & LITTLEPAGE
 Tract _____ Acres 1600 Lease No. 592
 Well (Farm) No. _____ Serial No. 9511-T
 Elevation (Spirit Level) 888.39'
 Quadrangle WALTON 50
 County KANAWHA District BIG SANDY
 Engineer Adrian E. Sherman
 Engineer's Registration No. 2330
 File No. 74-71 Drawing No. _____
 Date SEPT. 3 '69 Scale 1" = 400'

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

WELL LOCATION MAP
 FILE NO. KAN-2433

+ 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.
TUSC.
Deep Well (Newburg)

RECEIVED

MAR 13 1970

Form OG-10



OIL & GAS DIVISION
DEPT. OF MINES

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

Rotary
Spudder
Cable Tools
Storage
Oil or Gas Well (KIND)

Quadrangle W. H. 11

Permit No. KAN-2433

WELL RECORD

Company <u>United Fuel Gas Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Packers
Address <u>Charleston, West Virginia</u>	Size			Kind of Packer
Farm <u>Gardner & Littlepage</u> Acres <u>1600</u>	16			
Location (waters) <u>Gages Creek</u>	13 <u>3/8"</u>	<u>247'</u>	<u>247'</u>	Size of
Well No. <u>9511 Test</u> Elev. <u>888.39'</u>	10 <u>9 5/8"</u>	<u>1957'</u>	<u>1957'</u>	Depth set
District <u>Big Sandy</u> County <u>Kanawha</u>	<u>8 1/4 7"</u>	<u>5584'</u>	<u>1484'</u>	Perf. top
The surface of tract is owned in fee by	<u>6 1/4</u>			Perf. bottom
Address	<u>5 3/16</u>			Perf. top
Mineral rights are owned by	<u>4 1/2</u>			Perf. bottom
Address	<u>3</u>			
Drilling commenced <u>January 31, 1970</u>	<u>2</u>			
Drilling completed <u>March 4, 1970</u>	Liners Used			
Date Shot From To				
With				

Open Flow /10ths Water in _____ Inch
 /10ths Merc. in _____ Inch

Volume _____ Cu. Ft.

Rock Pressure _____ lbs. _____ hrs.

Oil _____ bbls., 1st 24 hrs.

WELL ACIDIZED (DETAILS) _____

WELL FRACTURED (DETAILS) _____

Well Logged by Schlumberger Gamma Ray, Density, Induction, Caliper

RESULT AFTER TREATMENT (Initial open Flow or bbls.) _____

ROCK PRESSURE AFTER TREATMENT _____ HOURS

Fresh Water _____ Feet Salt Water _____ Feet

Producing Sand Clinton Dry Depth 7253'

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale & Sand			0	330			
Sand			330	525			
Shale			525	620			
Sand			620	710			
Shale			710	770			
Sand			770	795			
Shale			795	830			
Sand			830	860			
Shale			860	1150			
Salt Sand			1150	1600			
Maxon Sand			1600	1635			
Little Line			1635	1670			
Big Line			1670	1779			
Sand <u>Big Injun</u>			1779	1831			
Shale			1831	2062			
Sand			2062	2160			
Shale			2160	2835			
Sand			2835	2845			
Shale & Lime			2845	5331			

MAR 23 1970

Formation	Color	Hard or Soft	Top 7	Bottom	Oil, Gas or Water	Depth Found	Remarks
Corniferous Lime		5215	5331	5463			
Oriskany Sand	5440 - 5480		5463	5500	Water in Oriskany		
Lime & Dolomite			5500	6272			
Newburg Sand	6360 - 6390		6272	6295	Hole full of Water in Newburg		
Shale & Dolomite			6295	7145	2.8		
Clinton Sand	Tuscarora ✓		7145	7243	2.7		
Shale			7243	7253			
TOTAL DEPTH				7253			
	6700 - top BSHL						
					6272	6272	
					5463	888	
					809	5384	
PI card							
Gas in Tuscarora	F 114						lowest SW + highest ϕ on Schlumberger log analysis 7176-7181-
K19.3117/2000							
log picks							
Orisk	5336-5478			7253			
Newburg	6361-6386			1831			
Tusc	7170-7240			5422	expl. Footage		

Date March 10, 1970

APPROVED UNITED FUEL GAS COMPANY, Owner
 By William P. Friedman
 (Title)
 Supt., Civil Engineering Dept.