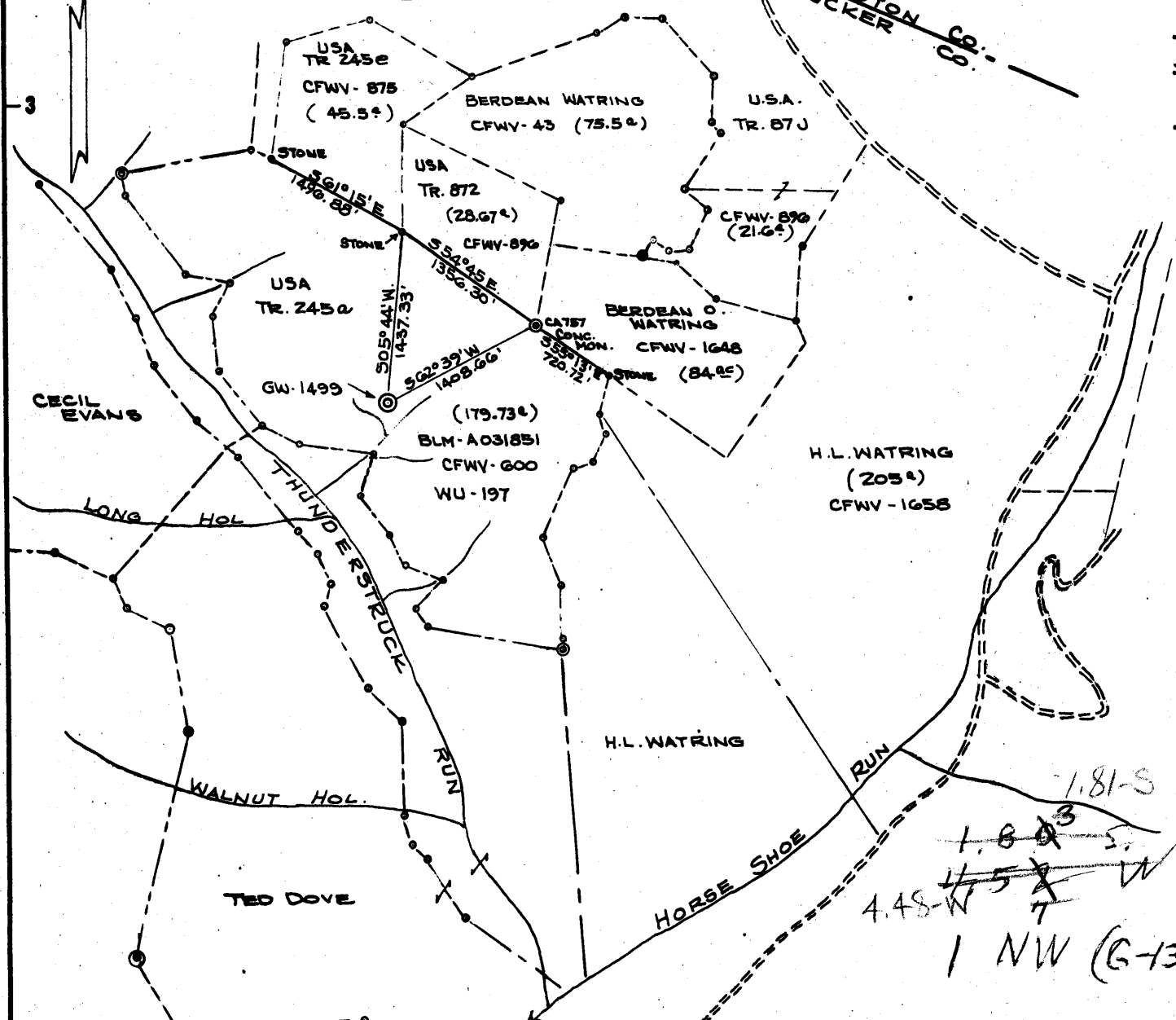


Latitude 39° 15'

NOTE- ELEVATION TAKEN FROM U.S.G.S. "1874" ELEVATION 1873.6 ABOUT 4 MILES NE LEADMINE INTERSECTION SEC. W.VA. RTS. 7 AND 7/6 - SHAFFER, W.VA. STANDARD CONCRETE POST STAMPED 77 JEA-1957,

Topo Loc. +
9,300 SOUTH 39° 15'
23,600 WEST 79° 30'



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

New Location
Drill Deeper
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 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA.

Company CITIES SERVICE OIL CO.
 Address BOX 873 CHARLESTON, W.VA.
 Farm UNITED STATES OF AMERICA
 Tract 245a Acres 179.73 Lease No. BLMA031851
 Well (Farm) No. T-1 Serial No. GW-1499
 Elevation (Spirit Level) 2047.50
 Quadrangle PARSONS-NE-5178 W-455
 County TUCKER District ST. GEORGE
 Engineer Wendell S Moore
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-17-64
 Date 18 MAY 64 Scale 1" = 1320'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. Tuc-34

+ 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.

Handwritten notes:
 1.81 S
 1.80 S
 4.48 W
 1 NW (G-13)

notes some received 15-C (440-6980)

Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary ~~XXX~~
Spudder:
Cable Tools
Storage

Quadrangle Parsons NE

Permit No. Tuc-34

WELL RECORD

Oil or Gas Well gas
(KIND)

Company Cities Service Oil Company
Address P. O. Box 873, Charleston 23, W. Va.
Farm U. S. of America Acres 640
Location (waters) Thunderstruck Run
Well No. T-1, GW-1499 Elev. 2047.50'
District St. George County Tucker
The surface of tract is owned in fee by Director, Bureau of Land Mgmt., et al
Interior Bldg. Address Wash., D. C.
Mineral rights are owned by same
(for further add. contact C. S. Oil Co)
Address 4-172

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
20" 94'	31'	31'	Kind of Packer
13 3/8" 48'	131'	131'	<u>Halliburton Form.</u>
9-5/8" 32'	1266'	1266'	Size of <u>4-1/2"</u>
7" 23'	4659'	4659'	Depth set <u>6,822'</u>
11.6'	6897'	6897'	
			Perf. top
			Perf. bottom
			Perf. top
			Perf. bottom

Drilling commenced 6-29-64
Drilling completed 8-21-64
Date Shot not 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 _____
WELL FRACTURED not fractured

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 ~~AS REPORTED~~ F. O. F. 22,000 MCF
ROCK PRESSURE AFTER TREATMENT 22 hrs. 2627#; Tub. 2630#- Braden Head-14 gas. 2630# B. H. - dead wt
Fresh Water 240' Feet. Salt Water _____ Feet.

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale			0	202			
Shale and Hard Sand			202	320	F. water	240'	show
Hard Shale			320	395			
Hard and Soft Shale			395	502			
Sandy Shale			502	632	4302	4470	41618
Soft Shale			632	720	2048	2048	2048
Sandy Shale			720	886	2254	2422	2570
Soft Shale			886	1179			
Shaley Sand, Hard			1179	1280			
Hard Shale			1280	1310			
Soft Shale			1310	1920			
Soft and Hard Shale			1920	2015			
Light and Dark Shale, soft			2015	3763			
Shale and Lime			3763	3900			
Dark Brown Shale			3900	3974			
Light Gray Shale			3974	4019			
Black Shale			4019	4130			
Brown and Gray Shale			4130	4330			
Chert			4330	4470			
Oriskany			4470	4617			
Sandy Lime			4617	4806			
Sandy Lime and Shale			4806	6822			
Tuscarora Sand			6822	6986	Gas	6928'	est. 19 MMCF
Total depth				6986'			

Probable WLMF
6124-44
4470
7654

2523
A
11/23

Sample Analysis:	Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Wiskany Carora		4470 5821	4595 6926			<u>Well was not cored.</u>
CASING RECORD						
7-1-64	Ran 131' of 13-3/8" 48# casing at 128'. Cemented with 110 sacks. Circulated and filled cellar with cement.					
7-10-64	Ran 1,266' of 9-5/8" 32.30# casing with Guide Shoe at 1266' Landing Flange. Cemented with 100 sacks cement and 2 sacks Calcium Chloride. R/L nipple and cellar at 742'.					
8-6-64	Ran 4659' of 7" 23# casing at 4,517' Rotary Table Measurement. Cemented with 150 sacks of cement and 2 sacks Baraflos. Ran Differential Fillup Casing shoe - 6 centralizers.					
8-22-64	Ran 6,897' of 4-1/2" 11.6# casing, Halliburton Formation Packer set at 6,822'. Ran with guide shoe - 4 metal petal baskets - 10 centralizers. Cemented with 300 sacks cement and Pozmix.					
Ran Logs: Integrated Sonic, Sonic Amplitude, Gamma Ray, Caliper and Lateral Logs.						
Final open flow determined by back pressure tests run September 9, 1964 - 22,000 MCF.						
Rock pressure 2630# (deadweight) after being shut in 14 days.						

Date September, 19 64

APPROVED Cities Service Oil Company, Owner

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

COLUMBIAN CARBON COMPANY

Monroe, Louisiana
Laboratory

Tucker 34

Analysis No. 33129

September 21, 1964

Gas sample from GW-1499, United States of America T-1, Tucker County,
West Virginia, Parsons #250 District.

G. P. M.

Carbon dioxide	0.20		Specific Gravity (Dry)
Oxygen	0.24		Calc. <u>.641</u>
Nitrogen	18.23		
Methane	79.80		
Ethane	1.38	.328	Heating value - <u>819.65</u>
Propane	0.14	.038	B. T. U. /cu. ft.
N-Butane	0.01		

mll