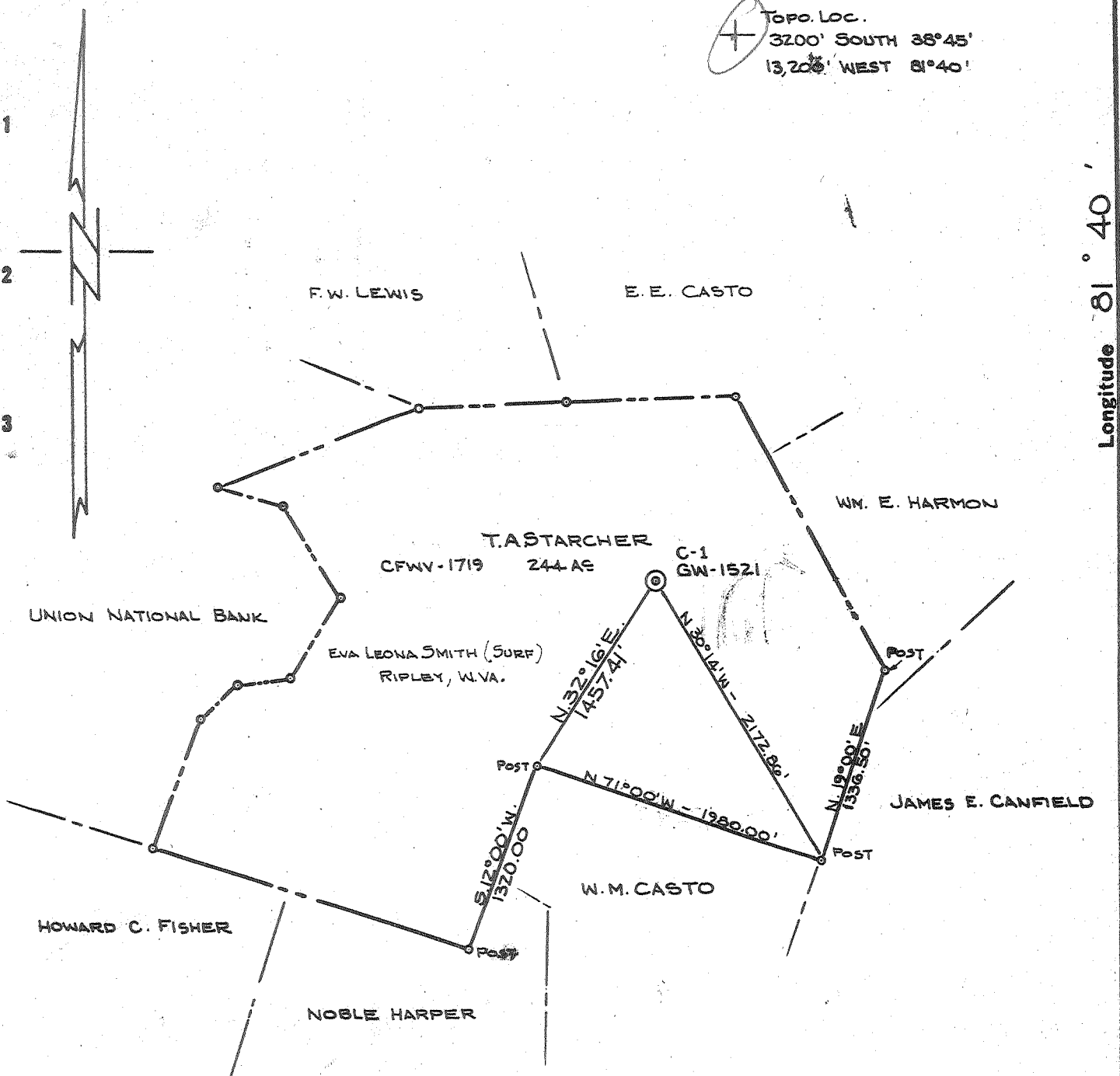


Latitude 38° 45'

Topo. Loc.
3200' SOUTH 38°45'
13,200' WEST 81°40'

Longitude 81° 40'



0.60-S
~~0.63-S~~
~~2.53-W~~
~~2.49-W~~
 3 NC (I-5)

NOTE - ELEVATION TAKEN FROM U.S.C.G. T-106 ELEVATION
 649.00' - S.E. CORNER OF CONCRETE BRIDGE -
 SPRUCE HOLLOW - GIVEN, W.VA. STANDARD DISK-T-106

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 COMPANY
 Address Box 873, CHARLESTON, W.VA.
 Farm T.A. STARCHER
 Tract _____ Acres 244 Lease No. CFWV-1719
 Well (Farm) No. C-1 Serial No. GW-1521
 Elevation (Spirit Level) 918.40
 Quadrangle KENNA-N-5060 W-252
 County JACKSON District RIPLEY
 Engineer R. B. Anderson
 Engineer's Registration No. 2074
 File No. _____ Drawing No. W-22-64
 Date 31 JULY 64 Scale 1" = 1000'

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

WELL LOCATION MAP
 FILE NO. JAC-1071

+ Denotes location of well on United States
 Topographic Maps, scale 1 to 62500 lat-
 itude and longitude lines being represented
 by border lines as shown.

- Denotes one inch spaces on border line
 of original tracing.

Samples - 0' - 5286'

Deep Well 6-6 (192)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 2

- Rotary
- Spudder
- Cable Tools
- Storage

Quadrangle Kenna N SW

WELL RECORD

Permit No. JAG-1071

Oil or Gas Well Gas
(KIND)

Company Cities Service Oil Company
Address P. O. Box 873, Charleston 23, W. Va.
Farm T. A. Starcher, et al Acres 244

Location (waters) _____
Well No. C-1, GW-1521 Elev. 918.40'
District Ripley County Jackson

The surface of tract is owned in fee by Eva L. Smith
R. F. D. #2 Address Ripley, W. Va.

Mineral rights are owned by E. N. Starcher, et ux
664 Stratton St. Address Logan, W. Va.

Drilling commenced 9-19-64

Drilling completed 1-15-65

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 attached report

RESULT AFTER TREATMENT 78/10 M. 2" = 1,374 MCF (Oriskany)

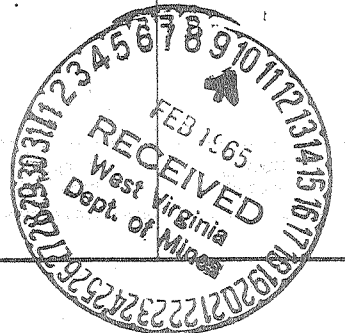
ROCK PRESSURE AFTER TREATMENT 24 hours 1480#

Fresh Water 365' Feet Salt Water 1225' 1785' 1815' Feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16" 65#	34'	34'	Anchor Packer
18" 3/8" 45#	830'	830'	
10" 3/4" 32#	1625'	718'	Size of 4-1/2"
8 1/2" 24#	2272'	pulled	Depth set 5112'
4-1/2" 23#	5134'	5134'	
4-1/2" 11.6#	5246'	5246'	
3			Perf. top
2 3/8" 4#	5185'	5185'	Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
see reverse side
7' Shale
COAL WAS ENCOUNTERED AT 1432 FEET 48 INCHES
____ FEET _____ INCHES FEET _____ INCHES
____ FEET _____ INCHES FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	20			
Sand			20	80			
Red Rock			80	145			
Sand			145	212			
Slate			212	225			
Red Rock			225	305			
Sand - 1 st Pitts. Sand?			305	385	F. water	365'	1-1/2 blr/hr.
Red Rock			385	442			
Sand			442	465			
Lime			465	490			
Slate			490	505			
Red Rock			505	543			
Sand			543	570			
Red Rock			570	590			
Sand			590	640			
Slate			640	665			
Sand			665	715			
Slate			715	735			
Sand			735	760			
Red Rock			760	815			
Lime 817'DLM=820'SLM			815	870			
Red Rock			870	900			
Sand			900	928			
Slate			928	940			
Sand			940	960			
Slate			960	964			
Slate w/ coal fragments			964	968			



Formation	Color	Hard or Soft	Top ²	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			968	1005			
Red Rock			1005	1020			
Sand			1020	1075			
Slate			1075	1140			
Lime			1140	1160			
Slate			1160	1215			
Sand - Big Sand			1215	1332	S. water	1225'	3 blrs/hr.
Slate			1332	1357			
Sand			1357	1432			
Coal & Black Shale			1432	1436			
Slate			1436	1460			
Sand			1460	1470			
Lime			1470	1495			
Slate			1495	1515			
Sand			1515	1540			
Slate			1540	1602			
Lime & Shells 1606' Dlm=1609' SIm			1602	1631			
Slate			1631	1740			
Sand - Salt Sand			1740	1863	S. Water	1785'	3 blrs/hr.
Slate			1863	1900	S. Water	1815'	hole full
Sand - ?			1900	1960			
Lime - Big Lime			1960	2086			
Sand - Injan & Squaw			2086	2227			
Slate & Shells 2247' Dlm=2254' SIm			2227	2584			
Sand - Berea			2584	2593			
Slate & Shells			2593	3900			
Gritty Lime			3900	4085	Temperature Log showed gas:		
Brown Shale			4085	4385		5119-21'	
Slate and Shells			4385	4778		5126'	
Brown Shale			4778	5020		5135-39'	
Lime - Huntersville			5020 5128	5128		5164'	
Sand - ORISKANY			5128	5191			
Lime - Heldseberg			5191	5226			
Total depth-----				5226' DLM=			
Plugged back depth-----				5214' Schl. Meas.			
				5183'			
Schlumberger Log showed:							
Oriskany			5118	5150			
			5159	5171			
CASING RECORD							
10-4-64	Ran 13-3/8" casing with shoe at 820' SLM. Set in 20' red mud.						
11-1-64	Ran 10-3/4" casing with shoe at 1609' SLM - Gelled with 15 sacks. No returns. Pulled 907'						
11-16-64	Ran 8-5/8" casing with shoe at 2254' SLM - Gelled with 13 sacks. No returns. Pulled later.						
12-31-64	Ran 7" casing at 5041' Schlumberger Meas. with Midget Bottom Hole Packer set on bottom. Gelled with 60 sacks.						
1-19-65	Ran 4-1/2" casing at T. D. with shoe, 3 centralizers, Anchor Packer set at 5,112', R/L nipple at 4,748'. Insert in top of 1st joint. Cemented with 35 sacks						
See additional information on attached sheet.							

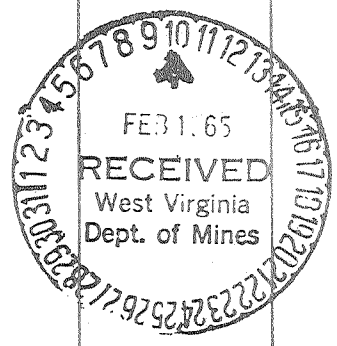
Date _____, 19__

APPROVED _____, Owner

By W. J. Moore
(Title)

Jac-1071

Formation	Color	Hard or Soft	Top 24	Bottom	Oil, Gas or Water	Depth Found	Remarks
Additional information on GW-1521, T. A. Starcher C-1							
1-15-65							Ran Schlumberger Logs: Temperature, Gamma Ray, Caliper, Induction and Density.
1-27-65							Ran Cement Bond Log. Perforated Oriskany Sand 5122-24', 5136-42', and 5164-66' all 2 shots/foot. Slight increase in gas after perforating and show of dirty water and soft cement. Bailed dry.
1-28-65							Fractured the Oriskany with 500 gallons MCA, 500 gallons regular acid, 514 barrels gelled water with 10,000# 20-40 sand. Average injection rate 11-1/2 bbls/minute. Average injection pressure 3610#. Maximum pressure 3900#. Minimum pressure 3100#. Breakdown pressure 3,500# - 1/4 to 1/2# sand/gallon throughout treatment. Opened well - flowing back - died - swabbed.
2-4-65							Final open flow 78/10 M. 2" = 1,374 MCF



Date February 8, 19 65

APPROVED Cities Service Oil Company, Owner

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