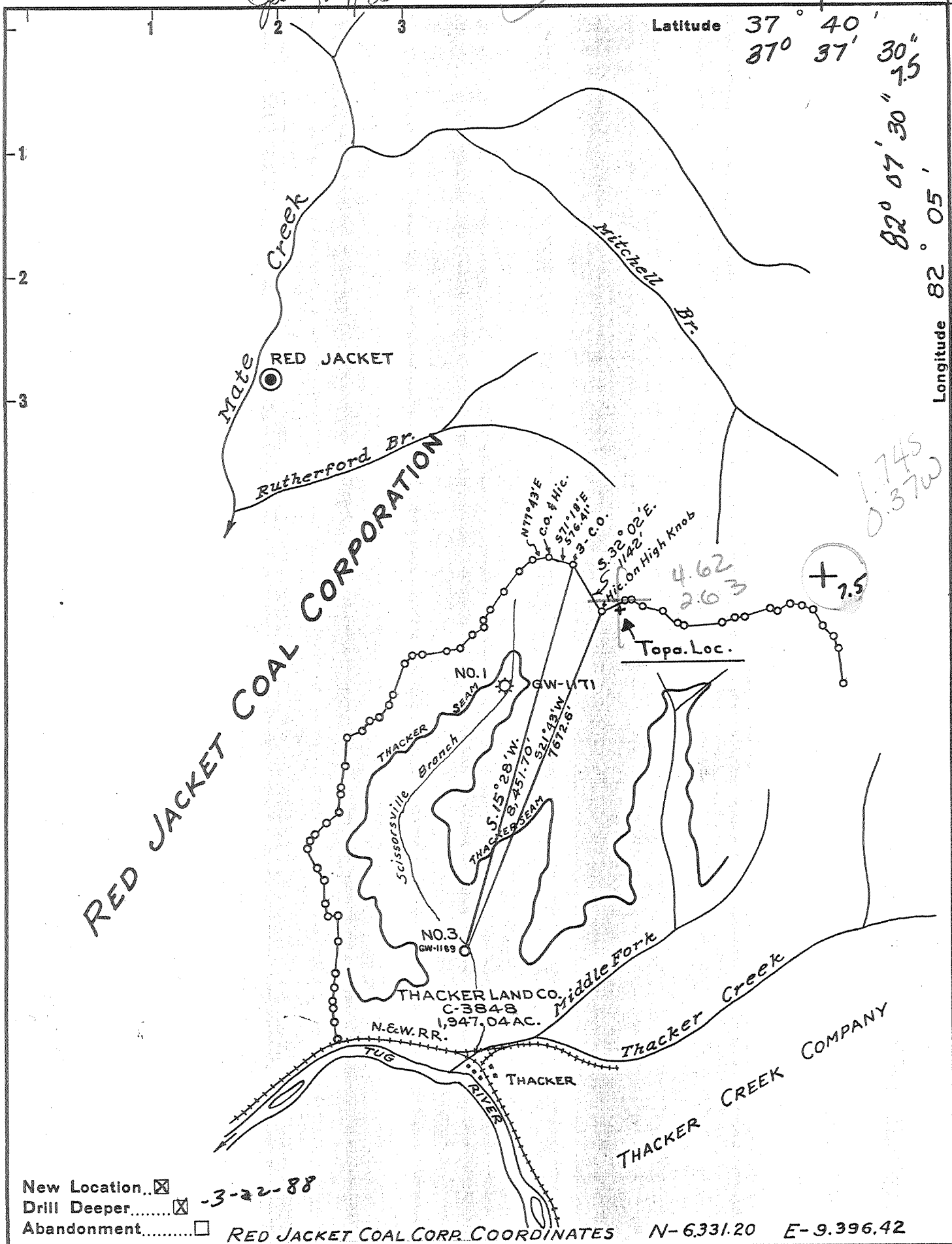


2/24/53

2000



New Location...
 Drill Deeper... -3-22-88
 Abandonment... RED JACKET COAL CORP. COORDINATES N-6331.20 E-9.396.42

Company Cities Services Oil & Gas Corp. 169
 Address BOX 873 CHARLESTON, W. VA.
 Farm THACKER LAND CO.
 Tract _____ Acres 1,947.04 Lease No. C-3848
 Well (Farm) No. 3 Serial No. GW-1189
 Elevation (Spirit Level) 763.51' Matewan 75
 Quadrangle MATEWAN-5-S-480 W-265
 County MINGO District MAGNOLIA 5
 Engineer Wendell S. Moore
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-2-53
 Date MAR. 4, 1953 Scale 1" = 2640'

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

WELL LOCATION MAP
 FILE NO. MIN-356-DD

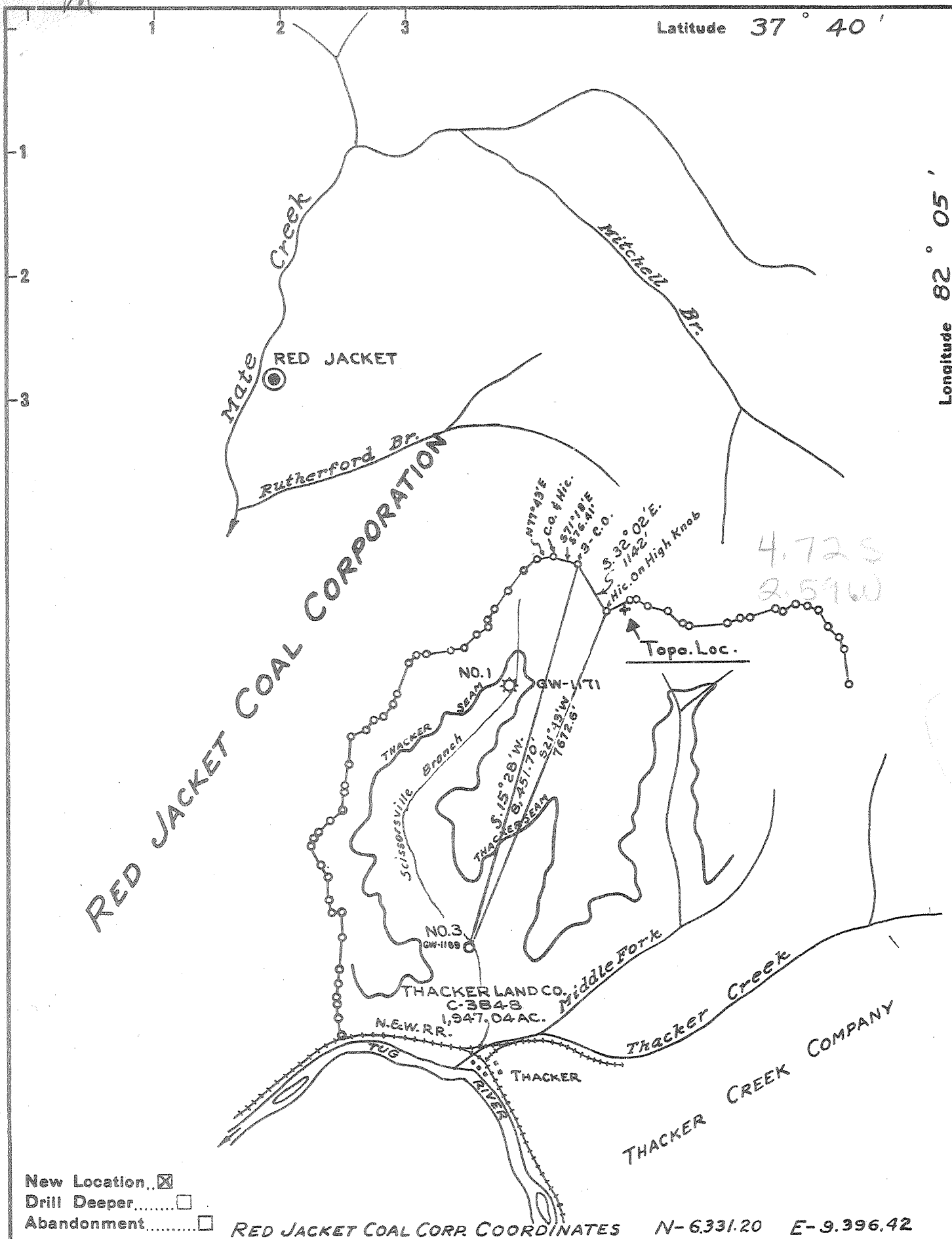
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

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

MAR 25 1953

47-059

DEEP WELL - OWOD - 4500' Dev. Shale Magnolia (265)



New Location
 Drill Deeper
 Abandonment

RED JACKET COAL CORP. COORDINATES N-6331.20 E-9.396.42

Company COLUMBIAN CARBON CO.
 Address BOX 873 CHARLESTON, W. VA.
 Farm THACKER LAND CO.
 Tract _____ Acres 1,947.04 Lease No. C-3848
 Well (Farm) No. 3 Serial No. GW-1189
 Elevation (Spirit Level) 163.51'
 Quadrangle MATEWAN-5-S-480 W-265
 County MINGO District MAGNOLIA
 Engineer Wendell S. Moore
 Engineer's Registration No. 4113
 File No. _____ Drawing No. W-2-53
 Date MAR. 4, 1953 Scale 1" = 2640'

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

WELL LOCATION MAP
 FILE NO. MIN-356

+ 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.

6-6 265



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Metcum

WELL RECORD

Oil or Gas Well GAS
(NINE)

Permit No. WIN-356

Company Columbian Carbon Company
Address Box 873, Charleston 23, W. Va.
Farm Thacker Land Company Acres 1947.04
Location (waters) Scissorsville Branch
Well No. 3 (OW-1189) Elev. 761.51
District Magnolia County Mingo
The surface of tract is owned in fee by Thacker Land Co.
115 E. Rich Street Address Columbus, Ohio
Mineral rights are owned by Same

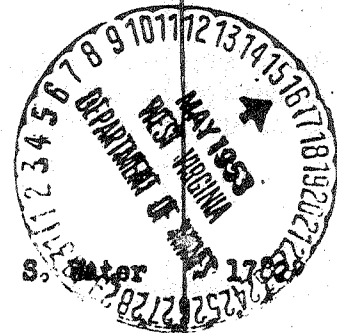
Drilling commenced 2-26-53
Drilling completed 4-25-53
Date Shot not shot From To
With acidised with 2000 gal. acid

Open Flow /10ths Water in Inch
25 /10ths Merc. in 7" 23# Inch
Volume 7,874,000 Cu. Ft.
Rock Pressure 715 lbs. 44 hrs.
Oil bbls., 1st 24 hrs.
Fresh water 16' 80' feet feet
Salt water 1105' 1199' 1782' feet feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16"	814"	Pulled	Kind of Packer <u>Comb. Wall & Anchor Pkr.</u>
18" <u>3/8"</u>	2013"	2013"	
10" <u>3/4"</u> 32#	31512"	Pulled	Size of <u>3 1/2"</u>
8 1/2" 21#	139811"	Pulled	
7" 23#	203714"	203714"	Depth set <u>2075'</u>
5 3/16"			
3 1/2" 7#	225313"	225313"	Perf. top <u> </u>
2"	with <u>3" edge</u>		Perf. bottom <u> </u>
Liners Used			Perf. top <u> </u>
			Perf. bottom <u> </u>

CASING CEMENTED SIZE No. Ft. Date
see reverse side
COAL WAS ENCOUNTERED AT 340 FEET 36 INCHES
 FEET INCHES FEET INCHES
 FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Sand & Gravel			0	16	F. Water	16'	4-13" blr/hr.
Slate			16	26			
Sand and Slate			26	177	F. Water	80'	hole full
Sand			177	238			
Slate & Shells			238	250			
Broken Sand			250	310			
Lime	315'DLM-315'SLM		310	321			
Shale			321	340			
Coal			340	343			
Sand			343	455	Gas	356'	Small show
Shale			455	470			
Sand			470	550			
Slate & Shells			550	571			
Sand			571	688			
Slate and Shells			688	730	Gas	1092'	Small show
Sand			730	1114	S. Water	1105'	1 1/2 blr/hr.
Slate			1114	1120			
Sand			1120	1201	S. Water	1199'	2 blr/hr.
Slate & Shells			1201	1295			
Sand			1295	1383			
Lime	1386'DLM-1390'SLM		1383	1422			
Sand			1422	1465			
Lime			1465	1550			
Red Rock			1550	1625			
Lime			1625	1680			
Sand			1680	1694			
Slate & Shells			1694	1718			
Naxon Sand			1718	1810			
Slate & Shells			1810	1900			
Sand			1900	1922			
Slate			1922	1947			
Pencil Slate			1947	1959			
Lime			1959	2020			
Big Lime	2030'DLM-2034'SLM		2020	2252	Gas Pays:		
Red Rock			2252	2256	2194'	120/10 W. 2"	= 462 MCF
					2199'	8/10 W. 7"	23#-1,207 MCF
					2211-21'	30/10 W. 7"	23#-2,228 MCF
		TOTAL DEPTH	- - - - -	2256'			



Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
<u>CASING RECORD</u>							
3-4-53	10-3/4"	casing not aquagelled.		Ran at 315' SLM.			Bailed hole clean before running casing. Columbian Carbon Company Crew
4-2-53	8-5/8"	casing.		Ran at 1386' DLM-1390' SLM.			Ran 15 sacks Aquagel. Good circulation and returns. Columbian Carbon Company Crew.
4-18-53	7"	casing.		Ran at 2030' DLM-2034' SLM.			Ran 15 sacks Aquagel. Good circulation and returns. Columbian Carbon Company Crew.
<u>ACIDIZING RECORD</u>							
5-7-53							Acidized with 2000 gallons 15% acid. Ran 105 gallons oil ahead of acid. Displaced with 1000 gallons water and 1 pint Tergitol. Before acidizing gas gauged 26/10 @ 7" 23# - 2,176 MCF. Final open flow after acidizing 25/10 @ 7" 23# 7,874 MCF

Date May 15, 1954

APPROVED Columbian Carbon Company, OGDEN

By R. W. Van Datten, Vice President

059-0356-D

Issued 3/22/88
Expired 3/22/90

FORM WW-2B

Page 3 of 3

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: ¹⁶⁹ Cities Service Oil and Gas Corporation 9800, 5, 462
- 2) Operator's Well Number: Thacker Land Co. A-3, GW-1189 3) Elevation: 763.51
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Devonian Shale⁴⁴¹
- 6) Proposed Total Depth: 4500 feet
- 7) Approximate fresh water strata depths: ^{OK} 16', 80'
- 8) Approximate salt water depths: 1105', 1199', 1782'
- 9) Approximate coal seam depths: ^{OK} 340'
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: DEEPENING THROUGH DEVONIAN SHALE
- 12) *NEW TUBULARS
**THIS TUBING & PACKER CASING AND TUBING PROGRAM
WILL BE PULLED

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS			CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	13-3/8"		48	20	20	
Fresh Water	10-3/4"		32	315	Pulled	
Coal	8-5/8"		24	1398	Pulled	
Intermediate	7"		23	2037	2037	15 sx Aquagel
* Production	4-1/2"	K55	11.6	4500	4500	300 cu ft
* Tubing	2-3/8"	J55	4.7	4500	4500	
** TUBING EXTENS	3-1/2"		7	2253	2253	

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PACKERS : Kind Comb. Wall & Anchor Midget BH Pkr
 Sizes 3-1/2" X 7" 7" X 8-5/8"
 Depths set 2075 2034

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Blanket Agent
 (Type)

669/3052

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23
FEB 24 1988

Page 1 of 3
Form WW2-A
(09/87)
File Copy

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: February 10, 1988
Operator's well number
Thacker Land Co. A-3, GW-1189
API Well No: 47 - 059 - 0356-DD
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Thacker Land Company
Address 133 Peachtree St., NE
Atlanta, GA 30348
(b) Name Attn: W. C. Covington
Address _____
(c) Name _____
Address _____

6) Inspector Arthur St. Clair
Address P. O. Box 468
Brenton, WV 24818
Telephone (304)- 732-6227

5) (a) Coal ~~Operator~~
Name Sovereign Coal Co, Sub Lessee of
Address P. O. Box 340 Pocahontas Land
Phelps, KY 41533
(b) Coal ~~Operator with Declaration~~
Name Carmark Coal Corp., Coal Lessee
Address P. O. Box 1030
Huntington, WV 25713
Name Keystone Resources, Sub Lessee of
Address 330 Grant St. Carmark Corp.
Suite 1700, Pittsburgh, PA 15219
(c) Coal Lessee with Declaration
Name Pocahontas Land Corp., Coal Lessee
Address P. O. Box 1517
Bluefield, WV 24701
Attn: Daniel Smith, Gen Manager

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:
X Personal Service (Affidavit attached)
X Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Cities Service Oil & Gas Corporation
By: Paul D. Phillips
Its: Operations Manager
Address P. O. Box 873
Charleston, WV 25323
Telephone (304) 344-8383

Subscribed and sworn before me this 12 day of February, 1988

Donald J. Day
My commission expires June 1, 1989
Commissioner
Notary Public

HR-35
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FEB 03 1989

22-Mar-88
API # 47- 59-00356 D

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Well Operator's Report of Well Work

Farm name: THACKER LAND CO.

Operator Well No.: A-3, GW-1189

LOCATION: Elevation: 763.51 Quadrangle: MATEWAN

District: KERMIT County: MINGO
Latitude: 9200 Feet South of 37 Deg. 37Min. 30 Sec.
Longitude: 2000 Feet West of 82 Deg. 7 Min. 30 Sec.

Company: CITIES SERVICE OIL & GAS CORP.
P. O. BOX 873
CHARLESTON, WV

Agent: PAUL D. PHILLIPS

Inspector: ARTHUR ST. CLAIR
Permit Issued: 03/22/88
Well work Commenced: 4-21-88
Well work Completed: 1-22-89

Verbal Plussions
Permission granted on: _____
Rotary Cable _____ Ris _____
Total Depth (feet) 4660'
Fresh water depths (ft) 16'; 80'

Salt water depths (ft) 1105'; 1199'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 340'

Size	Used in	Left	Cement
Conductor	Drillings	in Well	Fill Up
Intermed.	Existing		Cu. Ft.
13.375"	20'	20'	
7"	2037'	2037'	15 Sx Aquagel
4.5"	4550'	4550'	TOC 1480'
2.375"		4216'	

OPEN FLOW DATA

Lower Huron, Upper Devonian, Pocono
Producing formation Berea, Sunbury, Big Injun, Fay zone depth (ft) 2711'-4126'
Gas: Initial open flow 160 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 74 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 515 psig (surface pressure) after 144 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Delbert G. Oliver
For: CITIES SERVICE OIL & GAS CORP. FEB 14 1989
Feb

By: Delbert G. Oliver
Date: February 1, 1989 FEB 1 1989
Feb

~~S+15~~

Thacker A-3:

Details of perforated intervals, fracturing or stimulating, physical change, etc.:

Lower Huron: 3832' to 4126' with 75 holes. Fracture stimulated with 50,000 lbs of 20-40 sand in 133 BW and 561.7 MCF of N2.

Upper Devonian: 3168' to 3630' with 38 holes. Fracture stimulated with 50,000 lbs of 20-40 sand in 137 BW and 395.4 MCF of N2.

Pocono (2711'-2719'), Sunbury/Big Injun (2912' to 2929'), and Berea (2963' to 2967') with 119 holes. Fracture stimulated with 20,000 lbs 20-40 sand in 88 BW and 214,950 SCF of N2.

WELL LOG: (Note: Well was deepened from 2256' to 4660')

<u>Formation</u>	<u>Top (Ft)</u>	<u>Bottom (Ft)</u>
Big Lime	2256	2270
Sandy Shale	2270	2413
Weir	2413	2568
Shale	2568	2901
Sunbury	2901	2932
Berea	2932	2976
Upper Devonian Shale	2976	3796
Lower Huron	3796	4132
Java	4132	4404
Rhinestreet	4404	4608
Marcellus	4608	4640
Onondaga	4640	4660

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FEB 03 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

4660 new 70
2256 - old 70
2404 - new ftg

6691