

COLUMBIAN CARBON COMPANY Cities Service Oil Co

Lease No. C-298

Name of Company

Work Order No.

CHARLESTON, W. VA.

38°20'N

MAP OF TOWNSHIP LOCATION OF WELL NO. 12

being Well No. 12 on

Kanawha City Land Company

Tract of 2500 acres

Located in

Loudon

District

Kanawha

County

Quad Charleston

SC

3005
0.21M

81°35'



Topo. 15'

DICKINSON LANDS

STONE ON TOP OF RIDGE

HOGUE LANDS

KANAWHA CITY COMPANY LANDS

BLACK OAK ON RIDGE

CARKIN PROPERTY

Kan - 161 - Frac
47-039
Frac - 5,20,76

Scale 1" = 800'

ENGINEER'S CERTIFICATE

I, the undersigned, hereby certify that this map is correct and shows all the information to the best of my knowledge and belief, required by the oil and gas section of the State Laws of West Virginia.

Notary Public, Kanawha County, W. Va.

Chester A. Brauhorn
Engineer

Acknowledged before me a Notary Public, in and for the State and County aforesaid, this

22 day of April

Roberta Schlossstein
Notary Public

My Commission expires May 16, 1943

161

Loudon District, Kanawha County, W. Va.

Columbian Carbon Co., Charleston, W. Va. (Box 1240).

On 2500 acres, on headwaters of Rush Creek; surface and mineral rights owned by Kanawha City Co., Mr. I. Noyes Smith, Treasurer, Kanawha Banking & Trust Co., Charleston, W. Va.

Drilled under permit Kan.-161, issued June 3, 1935.

Elevation, 925.72' L.

14" casing, 82'; 10", 291'; 8 1/2", 1369'; 6-5/8", 4679'.

Coal was encountered at 27-29, and 63-65'.

Completion reported to Dept. of Mines Sept. 25, 1935.

Well was shot at 4752-4768'.

	Top.	Bottom.
Sand and gravel	0	27
Coal	27	29
Slate and shells	29	50
Sand	50	63
Coal (water, 63-65'; 2 1/2 bbls.)	63	65
Slate	65	110
Sand	110	150
Slate	150	165
Sand	165	198
Slate	198	250
Sand	250	260
Slate	260	265
Lime	265	295
Slate	295	330
Sand	330	370
Slate	370	395
Sand	395	438
Slate	438	460
Slate and shells (gas, 490-492')(water, 512') (2 1/2 bbls. water per hour).	460	538
Sand	538	570
Slate	570	590
Sand (water, 734'; oil show, 768-778') (hole full water, 825')	590	885
Slate	885	904
Lime	904	945
Sand	945	1005
Slate	1005	1045
Slate and shells	1045	1085
Sand	1085	1177
Slate	1177	1200
Red rock	1200	1216
Slate	1216	1238
Maxton Sand	1238	1278
Little Lime	1278	1347
Big Lime	1347	1514
Big Injun Sand, red	1514	1556
Slate and shells	1556	1948
Shale, brown	1948	1958
Berea Sand	1958	1964
Slate and shells	1964	3150
Shale, brown	3150	3930
Slate	3930	4280
Shale, brown	4280	4610

215 38° 20'
 0.4 W 81° 35'
 Charleston ground
 22

(OVER)

KANAWHA CITY CO. NO. 12 (GW-334) WELL (Continued).

	Top.	Bottom.
Shale, black	4610	4653
Corniferous Lime	4653	4750
Oriskany Sand (gas pay. 4754-4769')	4750	4769
Total depth		4776

4653	4750	4769
926	926	926
<u>3727</u>	<u>3824</u>	<u>3843</u>



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
MAY 28 1976

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE May 27, 1976

Surface Owner Kanawha City Company

Company Cities Service Oil Company

Address 1 Kanawha Banking & Trust Company
Charleston, WV

Address Box 873, Charleston, WV 25323

Mineral Owner _____

Farm Kanawha City Land Co. Acres 2500

Address _____

Location (waters) Rush Creek

Coal Owner _____

Well No. 12, GW-334 Elevation 925

Address _____

District Loudon County Kanawha

Coal Operator _____

Quadrangle Charleston

Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22,
of the W. Va. Code, the location is hereby approved
for fracturing. This permit shall expire if
operations have not commenced by 9-28-76.

Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Martin Nichols

GENTLEMEN:

PH: 548-6993 ADDRESS Clendenin, WV.

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under ~~grant~~ or lease dated May 1 19 74 by L. C. McKim & by subsequent assign. made to Cities Service Oil Co. (Columbian Carbon Company) and recorded on the 29 day of December 19 74, in Kanawha County, Book 26 Page 149

_____ NEW WELL _____ DRILL DEEPER _____ REDRILL X FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

West Virginia Geological and Economic Survey
P. O. Box 879
Morgantown, W. Va. 26505

Address
of
Well Operator

Very truly yours, CITIES SERVICE OIL COMPANY
(Sign Name) Sam J. Matthews
Well Operator Sam J. Matthews
Region Prod. Manager
Box 873 Street
Charleston City or Town
West Virginia 25323 State

*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

**THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO _____ DRILL _____ DEEPEN FRACTURE-STIMULATE
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Steve Buchworth NAME Sam J. Matthews
 ADDRESS Gassaway, WV ADDRESS Box 873, Charleston, WV 25323
 TELEPHONE 364-2362 TELEPHONE 344-8383
 ESTIMATED DEPTH OF COMPLETED WELL: 4776 ROTARY _____ CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 TYPE OF WELL: OIL _____ GAS COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20-16 14"	82'	82'	
13 - 10			
9 - 5/8			
8 - 5/8			
7 6-5/8"	4679'	4679'	
5 1/2			
4 1/2			
3			Perf. Top
2 - 3/8"	4776'	4776'	Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 63-65' FEET 512' SALT WATER 794' FEET 825'
 APPROXIMATE COAL DEPTHS 27'-29' 63'-65'
 IS COAL BEING MINED IN THE AREA? _____ BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title