

New Location...   
 Drill Deeper.....   
 Abandonment.....

Company COLUMBIAN CARBON COMPANY  
 Address BOX 873 CHARLESTON, W. VA.  
 Farm UNITED STATES OF AMERICA  
 PART OF C-4429  
 Tract 71 Acres 2499.7 Lease No. BLM-A-017119  
 Well (Farm) No. A-2 Serial No. GW 1238  
 Elevation (Spirit Level) 3083.2 (V.A.)  
 Quadrangle HORTON SW S-200 W-086  
 County RANDOLPH District DRY FORK  
 Engineer R. B. Anderson  
 Engineer's Registration No. 2074  
 File No. \_\_\_\_\_ Drawing No. W-11-56  
 Date MAY 7, 1956 Scale 1" = 2000'

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

WELL LOCATION MAP  
 FILE NO. RAN-87

+ 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.



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION 20

Quadrangle Horton 9 SW

WELL RECORD

Permit No. Ran-87

Oil or Gas Well Gas  
(KIND)

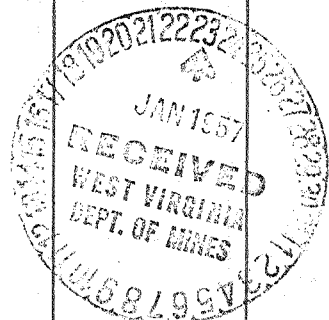
Company Columbian Carbon Company, Oper.  
Address Box 873, Charleston 23, W. Va.  
Farm United States of America Acres 2499.7  
Location (waters) East Fork of Glady Cr.  
Well No. A-2 (GW-1238) Elev. 3083.2'  
District Dry Fork County Randolph  
Bureau of Land Management  
The surface of tract is owned in fee by  
Interior Building Address Washington 25, D.C.  
Mineral rights are owned by same  
Address \_\_\_\_\_

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16" 65#	26'	26'	Midget
13-3/8" 48#	75'7"	75'7"	Kind of Packer Bottom Hole.
10-3/4" 40#	949'11"	Pulled	Size of 8-5/8"
8-1/2" 24#	2415'11"	2415'11"	Depth set 2397'SLM
5 3/16"	5098'11"	5098'11"	
3"			Perf. top
2-3/8" 4.6#	5414'11"	5414'11"	Perf. bottom
Liners Used	cage 31'3"	off btm.	Perf. top
			Perf. bottom

Drilling commenced 6-20-56  
Drilling completed 12-14-56  
Date Shot not shot From \_\_\_\_\_ To \_\_\_\_\_  
With see reverse side for fracturing record  
Open Flow 21/10ths Water in 7" 23# Inch  
\_\_\_\_\_/10ths Merc. in \_\_\_\_\_ Inch  
Volume 1,956,000 Cu. Ft.  
Rock Pressure 2010 lbs. 116 hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
Fresh water 200 feet  
Salt water \_\_\_\_\_ feet

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
see reverse side  
COAL WAS ENCOUNTERED AT none FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_  
FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_  
FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Soil			0	15			
Clay			15	35			
Lime			35	122			
Sand			122	144			
Lime			144	375	F. Water	282'	250' in 1 week
Slate			375	435			
Broken Lime			435	925			
Lime 941'DLM-945'SLM			925	945			
Slate and Shells			945	954			
Lime			954	1070			
Broken Lime			1070	1312			
Slate and Shells			1312	1950			
Gritty Lime			1950	1970			
Lime			1970	2000			
Slate and Shells			2000	2020			
Lime			2020	2160			
Slate & Shells 2377'DLM-2397'SLM			2160	2430			
Gritty Lime			2430	2515			
Lime			2515	2680			
Slate and Shells			2680	2750			
Lime			2750	2845			
Broken Lime			2845	3125			
Dark Shale			3125	3225			
Broken Lime			3225	3360			
Gritty Lime			3360	3380			
Broken Lime			3380	3530			
Lime			3530	3870			
Dark Broken Lime			3870	3970			
Black Shale & Shells			3970	4230			
Broken Lime			4230	4525			
Black Shale and Shells			4525	4600			
Brown Shale			4600	4880			



(Over)

Formation	Color	Hard or Soft	Top 20	Bottom	Oil, Gas or Water	Depth Found	Remarks
Black Marcellus Shale			4880	4989			
Brown Break			4989	5005			
Onondaga			5005	5041'DLM			
Chert, 5050'DLM-5053'SLM			5041'DLM	5044'SLM			
			5044'SLM	5144			
Dark Shale			5144	5146			
Chert			5146	5150			
Dark Shale			5150	5160			
Chert			5160	5174			
Dark Shale			5174	5210			
Oriskany			5210	5396	Gas		
Lime			5396	5400'	3338-3341' 40 Mcf - exhausted		
					5053-63' 24/10 W. 2" 207 M		
			Total depth -----	5400'	5110-15' incr. from 207 M to 215 M		
					5115-19' incr. from 215 M to 223 M		
Sample Log					5134-38' incr. from 207 M to 211 M		
					5142-46' incr. from 211 M to 215 M		
Onondaga			5002	5046'SLM	5223-25' incr. from 215 M to 292 M		
Chert			5046'SLM	5140	5225-28' incr. from 292 M to 304 M		
Shale			5140	5209	5242-47' incr. from 253 M to 263 M		
Oriskany			5209	5400	5261-65' incr. from 246 M to 253 M		
					5270-72' incr. from 246 M to 253 M		
			Total depth -----	5400'	5275-76' incr. from 239 M to 246 M		
					5276-78' incr. from 246 M to 253 M		
					5299-5301' incr. from 231 M to 249 M		
					5301-04' incr. from 249 M to 253 M		
					5316-18' incr. from 246 M to 267 M		
					5318-20' incr. from 267 M to 270 M		
					5320-23' incr. from 270 M to 273 M		
					5326-28' incr. from 273 M to 280 M		
					5328-31' incr. from 280 M to 332 M		
					5333-35' incr. from 329 M to 337 M		
					5338-40' incr. from 253 M to 400 M		
					5340-41' incr. from 400 M to 497 M		
					5341-44' incr. from 497 M to 516 M		
					5346-47' incr. from 492 M to 582 M		
					5350-53' incr. from 582 M to 622 M		
Fracturing Record							
12-19-56							2250# injection pressure - 4 pumps. Rate 13 bbl/min. Used 14,600# Sand. Packer held O.K. Used 200 bbl. gel. Maximum pressure 2800# - minimum 2000#. Sand all in at 2000#. Total fluid 10,940 gal. - 544 gal/min. 8 minutes after quitting 1300# pressure. Before fracturing gauged 582 Mcf. Final open flow 1,956,000 cubic feet. 116 hour pressure 2010#
Casing Record							
7-23-56							10-3/4" casing ran at 941'SLM- 18 sacks Aquagel. Circulation and returns.
8-29-56							8-5/8" casing ran at 2397'SLM- 28 sacks Aquagel. No circulation or returns.
10-12-56							7" casing ran at 5053'SLM- 48 sacks Aquagel. Pumped in 50 sacks Aquagel. Plug to 5033'SLM.

5005      5210      5396  
 3083      3083      3083  
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 -1922    -2127      2313

Date January 16, 19 57

APPROVED Columbian Carbon Company, Owner

By O. W. Van Petten, Vice Pres.  
(Title)