

LATITUDE (15° 49.5') 38° 30'

(15° 49.5') 81° 30'

LONGITUDE



7.5 OGIS topo location

7.5' 10C	<u>2.835</u>
	<u>1.97W</u>

15' 10C	<u>2.835</u>
(calc.)	<u>1.97W</u>

Company Columbia Carbon

Farm Copenhaver Heirs 1 (GW-327)

Quad Bra Chimney 7.5' / Charleston 15' ^{NE}

County Kanawha

District E1K

WELL LOCATION MAP

File No. 039-171

Kanawha

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

Vol XVII P
P 304

Permit No. Kan-171-D Dry Hole
Company Columbian Carbon Co. Casing & Tubing
Address Box 1240, Charleston, W.Va. 20 21' 21
Farm Copenhaver Heirs Acres 50 A. Tract 16 106'8 106'8
Location Lick Branch of Little Sandy 10 1/2 1402'9 1000'
Well No. 1 (GW-327) Elev. 684.58 DF 6-5/8 4761'10 422'7"
District Elk Kanawha County 5 1/2 5697'10 Pulled
Surface Copenhaver Heirs, c/o F.S. Copenhaver 23/8 4789' Pulled
& Grant Copenhaver, Agents-108 Liner-3 1/2 48'11 48'11
Arlington Ave., Charleston, W.Va.,
(F.S. Copenhaver, Dig Chimney, W.Va.) PACKER
Alex J. Bruen Heirs, 18E. 83rd St. N.Y.C.
Commenced 10-16-40 6 5/8" x 2" OWS
Completed 4-013-41
Shot 4-14-41 Depth 6392' DLM-6422' DLM
Volume 76 MCF
Rock Pressure 65# 1 hrs.
Salt Water 5180' - Sm. Show; 5608' H.F.; 5612' HF;
5617' HF

DRILLED DEEPER

Sand	11	55 HFW 34'
Coal	152	154
Slate	154	215 Cave
Gas Sand	765	774 Sh. Gas
1st Salt Sand	859	1050 HFW 895
2nd Salt Sand	1053	1070
Coal	1070	1072
3rd Salt Sand	1118	1315
Little Lime	1315	1349
Pencil Cave	1349	1351
Big Lime	1351	1523 Very Light,
Big Injun	1523	1545-Sh. Gas at
Br. Shale & Slate	3145	4706 1451'
Corniferous Lime	4706	4820
Oriskany	4820	4852 Gas
		4685'
		17 MCF

Charleston quad
NE
2.92 S. 38° 30'
2.01 W. 81° 30'
1 C (5-5)

ABD
5/41

Oriskany - Gas-4832 1/2' - 12 MCF - inc. to
184 MCF to 4845'
Measuring Machine Sand Line-4852'

(Commenced Drilling Deeper)

OLD TOTAL DEPTH		4852
Oriskany	4852	4858
Black Lime	4858	4876 Sh. Gas-4876-79 Show
Oriskany	4876	4887 Sulphur Gas 5180 Show
Black Lime	4887	5608 Water 5180 Show
Newburg	5608	5637 Water 5608 Hole Full
Gray Lime	5637	5892 Water 5612 Hole Full
Big Six Sand (Keefer)	5892	5902 Water 5617 Hole Full
Lime	5902	5922
Gray Shale	5922	5932
Pink Shale	5932	6078
Gray Shale	6078	6171
Red Rock	6171	6224
Sand Shells	6224	6229
Shells	6229	6253
Black Lime	6253	6278
Gray Shale	6278	6300
Red Rock	6300	6316
Lime	6316	6321
Gray Shale	6321	6336 DLM
Clinton (Stray)	6336 DLM	6345 - per sample
Red Sand (Clinton)	6345	6351 " "
Gray & Green Shale Break	6351	6357 " "
White Clinton - Turc	6357	6417 " "
Gray Shale	6417	6477 " "
Red Modina JUNIATA	6477	6500 DLM " "
TOTAL DEPTH		6500 DLM

✓ DRY HOLE - PLUGGED AND ABANDONED MAY 19, 1941

3-0 *321*
192

Samples 3-C (4706-4852')

Very Deep Well

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

Permit No. Kan-171-D
- Quad.

Dry Hole

CASING & TUBING
5-1/2 5697-10

Company Columbian Carbon Co.
Address Box 1240, Charleston, W. Va.
Farm Copenhaver Heirs ACRES 151
Location Lick Br. of Little Sandy
Well No. 1 (GW-327) ELEV. 684.58 DF
District Elk - Kanawha County
Surface Copenhaver Heirs, 1/2 F. S. Copenhaver,
Big Chimney, W. Va. & Grant Copenhaver,
108 Arlington Ave., Charleston, W. Va.

2.9 5 32' 30"
2.0 W 8' 30'

Mineral Alex J. Bruen Heirs (Coal)
18 E. 83rd St., New York, N. Y.

Commenced deepening Oct. 3, 1940
Completed Deepening Apr. 13, 1941
Shot 4/14/41 - depth 6392-6422 DLM *Tusc.* C
200# gelatin

Volume 76,000 cf. (44% CO₂) - *Tascanora*
Rock Pressure 65 lbs. 1 hr.
Salt Water 5608 - hole full

AUG 12 1941

Criskany 4820

36

✓ Chart

DRILLING DEEPER

Old Total Depth	4852	
Criskany	4852	4858
Black Lime	4858	4876
Criskany	4876	4887
Black Lime	4887	5608
Newburg	5608	5637
Gray Lime	5637	5892
Big Six Sand	5892	5902
Lime	5902	5922
Gray Shale	5922	5932
Pink Shale	5932	6078
Gray Shale	6078	6171
Red Rock	6171	6224
Sand Shells	6224	6253
Black Lime	6253	6278
Grey Shale	6278	6300
Red Rock	6300	6316
Lime	6316	6321
Grey Shale	6321	6336
Clinton (Stray) DLM	6336	6345
Red Sand	6345	6351
Break	6351	6357
White Clinton - <i>Tusc.</i>	6357	6417
Grey Shale	6417	6476
Red Medina - <i>Juniata</i>	6476	6500
Total Depth	6500	6500

W 5608 - hole full

6476
685

5791

6500
4852

1648

DD fty
+ exp. fty.

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Kan-171-D
- Quad.

Dry Hole

CASING & TUBING
5-1/2 5697-10

Company	Columbian Carbon Co.
Address	Box 1240, Charleston, W. Va.
Farm	Copenhaver Heirs ACRES 151
Location	Lick Br. of Little Sandy
Well No.	1 (GW-327) ELEV. 684.58 DF
District	Elk - Kanawha County
Surface	Copenhaver Heirs, 1/2 F. S. Copenhaver, Big Chimney, W. Va. & Grant Copenhaver, 108 Arlington Ave., Charleston, W. Va.
Mineral	Alex J. Bruen Heirs (Coal) 18 E. 83rd St., New York, N. Y.
Commenced deepening	Oct. 3, 1940
Completed Deepening	Apr. 13, 1941
Shot	4/14/41 - depth 6392-6422 DLM 200# gelatin
Volume	76,000 cf. (44% CO ₂)
Rock Pressure	65 lbs. 1 hr.
Salt Water	5608 - hole full

Criskany 4820

DRILLING DEEPER

Old Total Depth	4852	
Criskany	4852	4858
Black Lime	4858	4876
Criskany	4876	4887
Black Lime	4887	5608
Newburg	5608	5637
Gray Lime - <i>Mckenzie</i>	5637	5892
Big Six Sand (<i>Keffer</i>)	5892	5902
Lime	5902	5922
Gray Shale <i>Rose Hill</i>	5922	5932
Pink Shale	5932	6078
Gray Shale	6078	6171
Red Rock	6171	6224
Sand Shells	6224	6253
Black Lime	6253	6278
Grey Shale	6278	6300
Red Rock	6300	6316
Lime	6316	6321
Grey Shale	6321	6336
Clinton (Stray) DLM	6336	6345
Red Sand - <i>Casper</i>	6345	6351
Break	6351	6357
White Clinton - <i>Tusc.</i>	6357	6417
Grey Shale	6417	6476
Red Medina - <i>Juniata</i>	6476	6500
Total Depth		6500

W 5608 - hole full

Kan 171

Box 3040
 Charleston, W. Va. Address

COMPLETION DATA
 No. 2
 FORMATION RECORD

Well No. 1 (DW-327)

Name	Color	Character	Oil Gas or Water	Top	Bottom	Thickness	Feet Depth
Surface & Gravel				0	11	11	
Sand				11	45	34	
Sand & Lime				45	75	30	
Lime & Sand				75	102	27	
Slate				102	109	7	
Sand				109	120	11	
Slate				120	125	5	
Sand				125	152	27	
Coal				152	154	2	
Slate				154	215	61	
Sand				215	310	95	
Slate				310	360	50	
Sand				360	436	76	
Slate				436	460	24	
Sand				460	495	35	
Lime Shells				495	505	10	
Slate				505	522	17	
Sand				522	565	43	
Slate				565	598	33	
Sand				598	620	22	
Slate				620	720	100	
Sand				720	735	15	
Slate			Gas 766'	735	765	30	
Gas Sand				765	774	9	
Slate				774	815	41	
Sand				815	856	41	
Slate				856	859	3	
Salt Sand				859	1050	191	
Slate				1050	1053	3	
Salt Sand				1053	1070	17	
Coal				1070	1072	2	
Lime & Sand				1072	1118	46	
Salt Sand				1118	1315	197	
Lime				1315	1388	73	
Big Lime				1388	1525	135	
Big Injun				1525	1545	22	
Slate				1545	1552	7	
Sandy Lime & Slate				1552	1615	61	

shot
 Well was not shot at feet; well was shot at feet

Salt
 Fresh water at 34 salt
 feet; fresh water at 895 feet

producing
 Well was hole.
 dry

June 24, 1935
 Date

Approved COLUMBIAN CARBON COMPANY
 Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

JUN 25 1935

Geological Survey
 Jan 1940
 Charleston, W. Va. Address

COMPLETION DATA SHEET
 No. 2

Well No. 1 (OH-897) FARM W. F. Copenhagen, Heirs

FORMATION RECORD

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Gravel				0	11	11		
Sand			HFW 34'	11	55	44		
Slate				55	75	20		
Shale				75	80	5		
Sandy Lime				80	102	22		
Slate				102	109	7		
Sand				109	120	11		
Slate				120	125	5		
Sand				125	152	27		
Coal				152	154	2		
Slate				154	215	61		Cave
Sand				215	310	95		
Slate				310	360	50		
Sand				360	436	76		
Slate				436	460	24		
Sand				460	495	35		
Limo Shells				495	505	10		
Slate				505	522	17		
Sand				522	565	43		
Slate				565	598	33		
Sand				598	620	22		
Sand				620	720	100		
Slate				720	735	15		
Gas Sand			Gas Show	735	765	30		
Slate			766'	765	774	9		
Sand				774	815	41		
Slate				815	856	41		
1st. Salt Sand			HFW 895'	856	859	3		
Slate				859	1050	191		
2nd. Salt Sand				1050	1053	3		
Coal				1053	1070	17		
Sandy Lime				1070	1072	2		
3rd. Salt Sand				1072	1118	47		
Little Lime				1118	1315	197		
Pencil Cave				1315	1349	34		
Big Lime			Very light	1349	1351	2		
Big Injun			show Gas	1351	1523	172		
Sandy Slate			@ 1451'	1523	1545	22		
Lime, black				1545	1585	40		
Slate & Shells				1585	1604	19		
Slate				1604	2340	736		
Slate & Shells				2340	2400	60		
Slate				2400	2480	80		
Slate & Lime Shells				2480	2980	500		
				2980	3145	165		

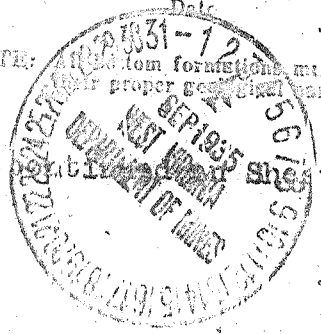
Well was not shot at feet; well was shot at feet.

Salt Fresh water at feet; fresh water at feet.

Well was producing hole. dry

Approved Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.



Log pertains to sheet 2.

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K21171

OIL OR GAS WELL / Gas Well

COLUMBIAN CARBON Company
Box 1240
Charleston, W. Va. Address

COMPLETION DATA SHEET
No. 2

Well No. 1 (GW-227) FARM W. F. Copenhagen Heins

FORMATION RECORD

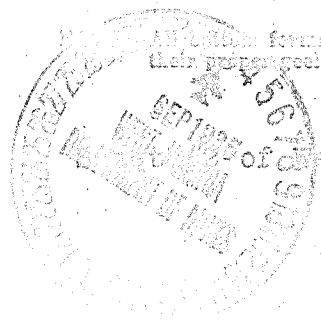
Name	Color	Character	Oil, Gas & Water	Top	Bottom	Thickness	Total Depth	Remarks
Shale	Brown			3145	3165	20		
Shale & Slate	Brown			3165	3220	55		
Slate & Shells				3220	3427	207		
Shale	Black			3427	3650	223		
Shale	Brown			3650	3787	137		
Slate & Shells				3787	4343	556		
Shale	Brown			4343	4630	287		
Slate				4630	4660	30		
Shale	Brown		Gas 4685'	4660	4706	46		
Corniferous			(17 MCF)	4706	4820	114		
Oriskany			Gas 4832½'	4820	4852	32	4852'	Measuring Machine Sand Line
			(12 MCF - inc. to 184 MCF to 4845')					

Well was ~~not~~ shot at 4832 - 4852 shot feet; well was shot at _____ feet.

Fresh water at 34 salt feet; fresh water at 895 salt feet.

Well was producing not

August 29, 1955 Date Approved: COLUMBIAN CARBON COMPANY Owner



All geological formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

of Well Record.

[Handwritten signature]