



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 19

Quadrangle Durbin SE

Permit No. Poca-17

WELL RECORD

Oil or Gas Well gas
(KIND)

Company Columbian Carbon Company
Address Box 873, Charleston 23, W. Va.
Farm U. S. of America-Mary Putnam 567.78'
Frisbie
Location (waters) _____
Well No. 1 - GW-1308 Elev. 3343.82'
District Greenbank County Pocahontas
The surface of tract is owned in fee by Director, Bureau of Land Management
Washington, D. C.
Mineral rights are owned by Director, Bureau of Land Management, et al
(for further addresses contact C. C. C.)
Drilling commenced 8-27-59
Drilling completed 3-12-60
Date Shot not shot From _____ To _____
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED not acidized
WELL FRACTURED see reverse side

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
1 3/8" 48#	33'8"	33'8"	M. B. H.
10 3/4" 32#	613'10"	613'10"	Size of 8-5/8"
8 1/4" 24#	1528'1"	1528'1"	Depth set 1515' SLM
6%			Perf. top _____
5 3/16" 17#	6574'1"	6574'1"	Perf. bottom _____
3			Perf. top _____
2 3/8" 4.2#	6559'11"	6559'11"	Perf. bottom _____
Liners Used	w/ 2" cage		Perf. top _____
			Perf. bottom _____

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

RESULT AFTER TREATMENT 90,000 cubic feet (Chert and Oriskany)
ROCK PRESSURE AFTER TREATMENT 72 hours on B. H. 1375#; Tubing 1000#
Fresh Water 20' 40' Feet _____ Salt Water 1873-92' Feet _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Top Soil			0	10			
Slate and Shells			10	360	F. Water	20'	
Sand			360	495	F. Water	40'	hole full
Slate and Shells			495	2635	S. Water	1873-92'	20 gal/hr.
Brown Shale			2635	2748			
Slate and Shells			2748	3940			
Shale and Shells			3940	4400			
Lime and Shale			4400	4780	6140	6287	6480
Shale			4780	4870	3344	3344	3344
Lime and Shale			4870	4975	2796	2943	3136
Shale			4975	5215			
Lime			5215	5305			
Shale			5305	5670			
Black Shale			5670	5830			
Grey Shale			5830	6140			
Lime and Shale			6140	6150			
Chert			6150	6235			
Shale			6235	6287			
Oriskany Sand			6287	6480			
Heldersburg Lime			6480	6525			
Total depth				6525'			

(over)

Formation	Color	Hard or Soft	Top / 19	Bottom	Oil, Gas or Water	Depth Found	Remarks
<u>Casing Record</u>							
13-3/8" drive pipe - ran 15 sacks Aquagel							
10-3/4" ran with shoe at 605' DLM - 17 sacks Aquagel							
8-5/8" ran with Midget bottom hole packer 1515' SLM - 15 sacks Aquagel - Circulation and returns							
5-1/2" ran at total depth with guide shoe on bottom and five centralizers - cemented with 200 sacks.							
<u>FRACTURING RECORD</u>							
7-19-60 Perforated the Chert 6162-6213' with 72 shots.							
7-21-60 Fractured the Chert. Pumped in 1,000 gallons MCA - 50 bbls. water with Tergitol. Started sand 1/2#/gallon - increased to 1#. Held during treatment. During treatment pressure gradually built up to 2,850# at end of sand. Used 500 barrels water and 35,000# 20-40 sand with 4 drums TMN and 3 drums T-08 Tergitol. Flushed with 160 barrels water and Tergitol. Pressure started at 2850#. Finished at 3250#. Used 720 barrels water total.							
Cleaned out sand.							
7-27-60 Perforated the Oriskany.							
Before perforating Oriskany, Chert gas gauged 14,900 cubic feet. After perforating Oriskany, Chert and Oriskany gas gauged 21,060 cu. ft. Bailed hole dry and cleaned out to bottom before fracturing Oriskany. No gas in Oriskany when tubed.							
8-2-60 Fractured Chert and Oriskany. Pumped in 1,000 barrels water, 30,000# 20-40 sand and 300 perf balls. Started perf balls in first water. Started sand 1/2#/gallon - put 150 perf balls in quick to seal check. Increased sand to 1-1/2#/gallon. Maximum pressure 3300#.							
Tubed with 2-3/8" tubing. Final optn flow 10-17-60 90MCF.							

Date October 31, 19 60

APPROVED Columbian Carbon Company, Owner
 By W. S. Moore, Mgr. of Prod.
 (Title)