

**STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES**

The Johns Hopkins University
BALTIMORE 18, MARYLAND

WELL COMPLETION REPORT

This report must be submitted within 30 days after completion of the well

WELL DESCRIPTION

WELL LOG		CASING AND SCREEN RECORD			Permit Number.....6917.....
State the kind of formations penetrated, their depth, their thickness, and if water-bearing		State the kind and size of casing, liner, shoe, screen, and other accessories (if no casing used, give diameter of well)			Name of Owner <u>Columbian Carbon Co. drilled on O. T. Graser Farm</u>
WELL LOG	FEET	CASING AND SCREEN RECORD	DIAM. (inches)	FEET	PUMPING TEST
	from.....to.....		Ran	drilled	Hours Pumped.....
GW-1503, Oren T. Graser #1 Drilled by Columbian Carbon Company, Box 873, Charleston, 23, W. Va. Drilling commenced 10-11-50 Drilling completed 12-22-50 Shot record-see reverse side Final open flow 35/10 W. 2" 249MCF- 72 hour rock pressure 14.5#		15-3/8" drive pipe ran at 28'	28'5"	28'5"	Pumping Rate Gallons per Minute.....
Sand and Gravel	0 - 15	10-3/4" 40# casing ran at 130'-not aquagelled	130'1"	none	WATER LEVEL
Slate & Shells	15 - 136	8-5/8" casing 24# ran at 710'DLM with 8" shoe-ran 25 sacks of cement-dumped on bottom	716'4"	none	Distance from land surface to water: -
Lime Shell	136 - 143	7" 23# casing ran with Midget btm. hole packer at 2878'SLM Ran 25 sacks Aquagel- No circulation or returns	2897'8"	none	Before Pumping.....Ft.
Slate & Shells	143 - 156	2-3/8" 4# tubing run with 2" cage	3079'4"	none	When Pumping.....Ft.
Lime	156 - 305	Elev. of well 2384.36' G			APPEARANCE OF WATER
Slate & Shells	305 - 708	Fresh water 170-175' 8-10" blr/hr. Gas shows: 2468' 2797' and 2919' Gas 2925' 8/10 W. 2" 119MCF-exh.			Clear.....
Lime	708 - 747	Gas pays:			Cloudy.....
Slate & Shells	747 - 1610	2999' 23/10 W. 2" 202MCF			Taste.....
Shale	1610 - 1643	3003' 7/10 W. 2" 112MCF			Odor.....
Slate & Shells	1643 - 2103	3034' 6/10 W. 2" 103MCF			Height of Casing Above Land Surface .....Ft.
Brown Shale	2103 - 2287	3194-3200' 7/10 W. 2" 112MCF			PUMP
Black Lime Shale	2287 - 2300				Type.....
Shale	2300 - 2401				Capacity
Lime	2401 - 2412				Gallons per Minute.....
Black Shale	2412 - 2574				Gallons per Hour.....
2468'SLM-2474'DLM	2574 - 2620				Pump Column Length.....Ft.
Black Lime Shale	2620 - 2870				REMARKS
2878'SLM-2878'DLM	2870 - 2883				.....
Gray Lime	2883 - 2969				.....
2919'SLM-2921'DLM	2969 - 3055				.....
Black Shale	3055 - 3093				.....
Chert	3093 - 3200				.....
Shale	3200 - 3460				.....
Sand	3460 - 3490				.....
Lime	3490 - 3535				.....
Shale-Lime	3535 - 3601				.....
Lime & Chert					.....
Lime					.....
TOTAL DEPTH - - - - -	3601'				Well Was Completed
					Date.....1-11-51
					Well Driller.....A. S. Campbell
					Signature

Acidizing Record and Shot record

12-29-50 - Acidized with 1000 gallons of acid by Halliburton with 2 bbls. gasoline ahead of acid. Acid went in on vacuum.-followed with 5 bbls. of gasoline when pressure went to 500# and packer started leaking. After acidizing gas gauged 10/10 W. 2" 133MCF

1-3-51 - re-acidized by H. libarton with 1000 gallons of acid and 4 bbls. of gasoline ahead of acid. acid went in on vacuum followed with 16 bbls. of gasoline when pressure went to 1200#. Before re-acidizing gas gauged 10/10 W. 2" 133MCF-2 hrs. after acid. gas gauged 33/10 W. 2" 242MCF

1-4-51 - Filled solid to 3200' shot from 3185' to 3200' with 100# 5/4" Gelatin 80%-detonated with jack. Before and after shot gauged 15/10 W. 2" 163MCF

1-5-51 - Filled solid from 3200' to 3055' and shot 3055' to 3040' with 100# 80% Gelatin-detonated with jack. Before shot gauged 15/10 W. 2" 163MCF

Filled solid to 3040' and shot 3040' to 3030' with 66-2/3# 4" Gelatin. After shot gas gauged 15/10 W. 2" 163MCF

Shot 3030' to 3020' with 66-2/3# Gelatin. Before and after shot 11/10 W. 2" 140MCF.

Filled solid to 3020' - shot 3020' to ^{3010'} 3010' with 66-2/3# Gelatin. Before and after acid shot 11/10 W. 2" 140MCF.

Filled solid to 3010' - shot 3010' to 3000' with 66-2/3# Gelatin. Before shot 11/10 W. 2" 140MCF-after shot 18/10 W. 2" 179MCF

Filled solid to 3003' - shot 3003' to 2993' with 66-2/3# Gelatin. Before shot 18/10 Water 2" 179MCF - 1 hour after shot 25/10 W. 2" 211MCF