

Company COLUMBIAN CARBON COMPANY
 Address BOX 873 CHARLESTON W.V.A.
 Farm D.H. HILL ARNOLD
 (PART OF 1600 AC.)
 Tract _____ Acres 780.5 Lease No. C-4435
 Well (Farm) No. 1 Serial No. GW-1208
 Elevation (Spirit Level) 3155.43
 Quadrangle HORTON 9 SW S-546 W-254
 County RANDOLPH District DRY FORK
 Engineer K. B. [Signature]
 Engineer's Registration No. 2074
 File No. _____ Drawing No. W-11-54
 Date DEC. 10 1954 Scale 1" = 2000'

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

WELL LOCATION MAP
 FILE NO. RAN-58
 CORRECTED MAP

+ 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.

6-6261 Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Quadrangle Horton 9 SW

Permit No. Ran-58

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Columbian Carbon Company, Operator
Address Box 873, Charleston 23, W. Va.
Farm D. H. Hill Arnold Acres 1600
Location (waters) Camp Hollow of East Fork
Well No. 1 - GW-1208 Elev. 3155.43' G
District Dry Fork County Randolph
The surface of tract is owned in fee by D. H. Hill Arnold, et al
Address Elkins, W. Va.

Mineral rights are owned by same
(for further addresses contact C.G.C.)
Address _____

Drilling commenced 1-21-55

Drilling completed 11-10-55

Date Shot _____ From _____ To _____

With see attached sheet

Open Flow 39 /10ths Water in _____ Inch

39 /10ths Merc. in M 7" 23# Inch

Volume 9,837,000 Cu. Ft.

Rock Pressure 2045 lbs. 120 hrs.

Oil _____ bbls., 1st 24 hrs.

Fresh water _____ feet _____ feet

Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer <u>M.B.H.</u>
18 3/8" 48#	2811"	2811"	
10 3/4" 40#	6111"	6111"	Size of <u>8-5/8"</u>
8 1/2" 24#	239519"	239519"	
8 1/2" 24#	487618"	487618"	Depth set <u>2381' SLM</u>
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

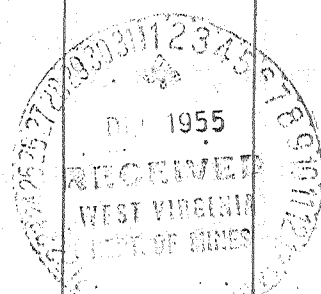
see reverse side

COAL WAS ENCOUNTERED AT none FEET _____ INCHES _____

FEET _____ INCHES _____ FEET _____ INCHES _____

FEET _____ INCHES _____ FEET _____ INCHES _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Yellow Clay			0	30			
Lime			30	125			
Slate & Lime			125	170			
Lime			170	270			
Lime & Shale			270	490			
Lime & Slate	<u>2362' DLM-2381' SLM</u>		490	2900			
Lime & Shale			2900	3000			
Lime & Slate			3000	3540			
Brown Shale & Lime Shells			3540	4623	Gas:		
Brown break			4623	4682	4753'	show ✓	
Chert			4682	4780	4838 DLM	show ✓	
Slate break			4780	4828' DLM	4860'	show	
				4845' SLM	4865'	show	
Oriskany Sand	<u>4833' DLM-4850' SLM</u>		4828' DLM	5008'	4875'	14/10 W. 3" 355M	
			4845' SLM		4878'	14/10 W. 7" 23# 1,597MCF	
					4921-22'	12/10 W. 7" 23# 1,478MCF	
					4936-40'	11/10 W. 7" 23# 1,416MCF	
					4940-45'	14/10 W. 7" 23# 1,597MCF	
					4957-59'	20/10 W. 7" 23# 1,909MCF	
					4961-62'	36/10 W. 7" 23# 2,961MCF	
					4964-69'	34/10 W. 7" 23# 2,489MCF	
					4972-75'	40/10 W. 7" 23# 2,700MCF	
					4989-92'	50/10 W. 7" 23# 3,018MCF	
					4992-94'	65/10 W. 7" 23# 3,442MCF	
					5002-08'	41/10 M. 7" 23# 10,086MCF	
Sample Log							
Chert			4695	4790			
Gray Shale			4790	4838			
Oriskany Sand			4838	5008			
			4695	4838			
			3155	3155			
			-1540	-1683			



Formation	Color	Hard or Soft	Top 8	Bottom	Oil, Gas or Water	Depth Found	Remarks
<u>CASING RECORD</u>							
3-4-55	10-3/4"		611'DIM	with Midget bottom hole packer			not aquagelled.
3-31-55	8-5/8"		2381'SIM	- 28 bags Aquagel and 210 bbls. water			- no circulation or returns.
5-29-55	7"		4850'SIM	- mixed 15 sacks Aquagel and 45 sacks Baroid to 100 bbls. water.			Pumped 100 sacks cement in hole.
See attached report for further details on this well							

Date Nov. 30, 1955

APPROVED Columbian Carbon Company, Owner

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

Jan-58

8-A

November 20, 1955

Record of D. H. Hill Arnold #1 - GW-1208

5-27-55 - Ran Gamma Ray Log (Schlumberger)

Top of Chert	=	4695'
Bottom of Chert	=	4800'
Top of Oriskany	=	4838'
Show of gas in Chert		4753'
Show of gas in Oriskany		4838'

6-7-55 - Perforated 7" opposite Chert as follows:

4700 - 4730'	=	10 shots
4730 - 4750'	=	10 shots
4750 - 4756'	=	24 shots
4756 - 4762'	=	24 shots
4762 - 4790'	=	28 shots
		<u>96 shots</u>

Show of gas when perforating section 4750 - 4756'

6-9-55 - Set Baker RT 8 packer at 4660'. Ran 2 bbls. oil and 375 gal. MCA. Pumped in at 2300# - in 30 minutes 7/10 w. 2" 112M.

6-10-55 - Blew well 8 hours 4/10 w. 2" 81MCF. Ran 2 bbls. oil and 375 gal. MCA - Pumped in at 2200# - swabbed off - got mud and gel back - 7/10 w. 2" 112MCF. Pumped in 40 bbls. oil at 3100# with 4 pumps - gelled 1600 gallons kerosene. Pumped in with 3100# sand. When half in started to get about a 2" stream from outside of 7". Shut down - pressure stayed at 2000#. Pumped in 4 more barrels - pressure stayed the same. Pumped in rest of frac and 50 bbls. oil at 1900# pressure. Well did not circulate again.

6-11-55 - Well cleaned self around 7" - gauging 600 MCF.

6-12-55 - Killed well with mud and re cemented 7".

6-27-55 - Perforated 4700 - 4730'	=	48 shots
4730 - 4760'	=	48 shots
		<u>96 shots</u>

6-28-55 - Ran tubing and Baker RT 8 packer set at 4659'.

6-29-55 - Ran 2 bbls. oil, 300 gallons MCA displaced with 26 bbls. water. Maximum pressure 1900# - swabbed off - a show of gas. Ran 2 bbls. oil, 300 gal. MCA displaced with 21 bbls. water - maximum pressure 2200# - Circulated around 7".

6-30-55 - PULLED tubing and reran with Model "K" packer set at 4620'. Loaded hole with water. Pumped in 100 bbls. 12# mud. Could not kill well.

7-6-55 - Set Baker RT 8 packer at 4625' - loaded packer with water. Show of gas on outside of 7" - hole standing full of water.

7-7-55 - Pumped in 350 bbls. 10# mud around 1600# pumping pressure.

7-8-55 - Pumped in 110 bbls. 13# mud at 1750#. Well completely dead. No circulation. Pumped in 100 sacks cement - displaced with 20 bbls. water. Started at 2000# - finished up at 2600#.

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-2- 8-13

- 7-18-55 - Set RT 8 packer at 4648' - pumped in 250 gallons NCA - had displaced with 20 bbls. water at 2000' pressure, when started to circulate around 7".
- 7-20-55 - Pumped in 335 bbls. of 12% mud at 1700' - partial circulation. Pumped 130 bbls. 12% mud - well completely dead. Pumped in 100 sacks cement at 2100' - displaced with 19 bbls. water.
- 7-27-55 - Tested casing to 4450' - gas started to come around 7".
- 8-1-55 - Set Baker bridge plug at 4855' in Sand. Dumped in one sack Calseal on top. Loading hole with water - 150 bbls. in when plug let go. Well cleaned itself - after blowing one hour 21/10 w. 3" 435MCF.
- 8-2-55 - Drilled out retainer - ran tubing to bottom with R/L nipple 2 joints off bottom. Circulation 130 bbls. of 10 1/2% mud down tubing and out 2-1/2" to kill well. No circulation - well dead.
- Pumped in 141 sacks cement - pulled tubing up to 4561' and started to stage cement. Pumping at 3500' pressure when Kerotest valve blew up releasing pressure. Attempted to pull tubing - cemented in tubing from 4154' to 4561'.
- 10-20-55 - Fished tubing out and reamed hole to bottom. Drilled ahead.

Fract. Chert & Killed

Orisk Gas Natural