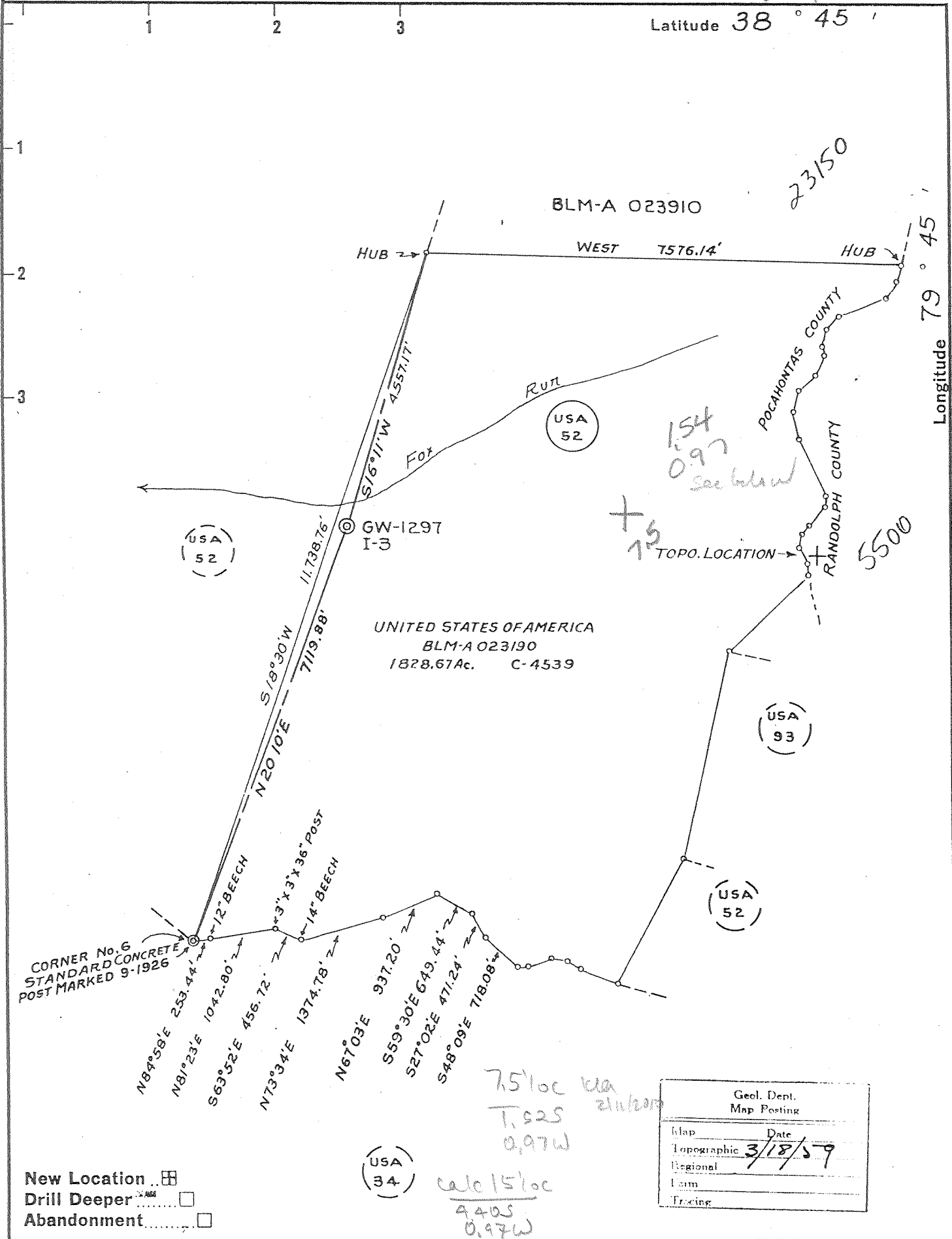


38 42 30



Company COLUMBIAN CARBON COMPANY

Address BOX 873 CHARLESTON WEST VIRGINIA

Farm UNITED STATES OF AMERICA
PART OF

Tract 52 Acres 1828.67 Lease No. C-4539

Well (Farm) No. I-3 Serial No. GW-1297

Elevation (Spirit Level) 3231.77'

Quadrangle DURBIN widell 7.5 S-443 W-107

County POCAHONTAS District GREENBANK

Engineer R. D. Anderson

Engineer's Registration No. 2074

File No. _____ Drawing No. W-4-59

Date FEB. 11-1959 Scale 1" = 2000'

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

WELL LOCATION MAP

FILE NO. Poca-15

+ 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.

Deco Well

Latitude 38° 45'

Longitude 79° 45'

BLM-A 023910

WEST 7576.14'

HUB

HUB

RUN

Fox

POCAHONTAS COUNTY

RANDOLPH COUNTY

TOPO. LOCATION

UNITED STATES OF AMERICA
BLM-A 023190
1828.67Ac. C-4539

USA 52

USA 93

USA 52

USA 34

CORNER No. 6
STANDARD CONCRETE
POST MARKED 9-1926

N84°59'E 253.44'
 N81°23'E 1042.80'
 S63°52'E 456.72'
 N73°34'E 1374.78'
 N6°03'E 937.20'
 S59°30'E 649.44'
 S27°02'E 471.24'
 S48°09'E 718.08'
 S18°30'W 11,738.76'
 N20°10'E 7119.88'
 S16°11'W 4557.17'
 S12° BEECH
 3" x 3" x 36" POST
 14" BEECH

New Location
 Drill Deeper
 Abandonment

4.88 S.
 1.08 W.
 ?

1 SE (I-12)

Company COLUMBIAN CARBON COMPANY
 Address BOX 873 CHARLESTON WEST VIRGINIA
 Farm UNITED STATES OF AMERICA
 PART OF
 Tract 52 Acres 1828.67 Lease No. C-4539
 Well (Farm) No. I-3 Serial No. GW-1297
 Elevation (Spirit Level) 3237.77'
 Quadrangle DURBIN - NE 5-443 W-107
 County POCAHONTAS District GREENBANK
 Engineer R. D. Anderson
 Engineer's Registration No. 2074
 File No. _____ Drawing No. W-4-59
 Date FEB. 11-1959 Scale 1" = 2000'

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

WELL LOCATION MAP
 FILE NO. Poca-15

+ 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.

Samples 19-C (5600-6085')

6-6 261 Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 7

Quadrangle Durbin SW

WELL RECORD

Permit No. Poca-15

Oil or Gas Well Gas
(KIND)

Company Columbian Carbon Company
Address Box 873, Charleston, W. Va.
Farm United States of America Acres, 1828.67

Location (waters) Fox Run
Well No. I-3 GW-1297 Elev. 3235.35'

District Greenbank County Pocahontas
The surface of tract is owned in fee by Director, Bureau of Land Management
Interior Building Address Washington, D. C.

Mineral rights are owned by Same
Address _____

Drilling commenced 2-26-59
Drilling completed 4-7-59

Date Shot Not shot From _____ To _____
With _____

Open Flow 32 /10ths Water in 2" Inch
/10ths Merc. in _____ Inch

Volume 239,000 (from Chert) Cu. Ft.

Rock Pressure 1918 lbs. 10 das. %.

Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED Not acidized

WELL FRACTURED See reverse side.

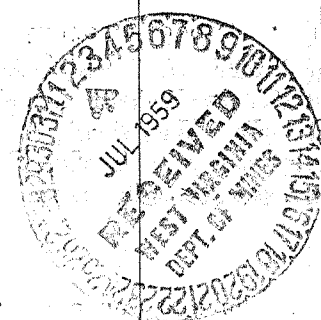
Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<u>Anchor Packer</u>
18			Size of <u>3"</u>
<u>1 1/4"</u>	<u>41'2"</u>	<u>41'2"</u>	Depth set <u>Between</u>
<u>8 1/4" 24#</u>	<u>1267'4"</u>	<u>1267'4"</u>	<u>Chert & Oriskany</u>
<u>6 3/8"</u>			Perf. top _____
<u>5 3/16 15.5#</u>	<u>6117'4"</u>	<u>6117'4"</u>	Perf. bottom _____
<u>3" 9.2#</u>	<u>6053'11"</u>	<u>6053'11"</u>	Perf. top _____
<u>2"</u>			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 _____

RESULT AFTER TREATMENT Final open flow Chert 858,000 cu. ft.; Oriskany 3,679,000 cu. ft.
Total open flow 4,537,000 cu. ft.
ROCK PRESSURE AFTER TREATMENT 47 hour pressure on Chert 1560#; Oriskany 760#.
Fresh Water 73', 450' Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale and Soil			0	55			
Lime			55	235	Fresh Water	73'	
Shale			235	300			
Lime and Sand			300	520	" "	450'	
Sand and Shale			520	1025			
Sandy Shale			1025	1250			
Shale and Lime Streaks			1250	1935			
Lime			1935	1975			
Shale and Lime			1975	2179			
Shale			2179	2292			
Lime and Shale			2292	2455			
Lime			2455	2468			
Shale and Shells			2468	2506			
Shale and Lime			2506	2810			
Shale			2810	2927			
Shale and Lime			2927	3151			
Shale			3151	3174			
Shale and Lime			3174	3281			
Shale			3281	3303			
Shale and Lime			3303	3740			
Shale			3740	3875			
Shale and Lime			3875	3980			
Shale			3980	4463			
Shale			4463	5302			
Shale and Lime			5302	5547			
Lime and Shale			5547	5659			
Chert			5659	5758			
Shale			5758	5812			
Oriskany Sand			5812	6085			
Total depth				6085'	Rotary - 6074'	Landing Flange Meas.	



E-log
ONDG 5603
Chert 5647
ORSK 5797

Formation	Color	Hard or Soft	Top /	Bottom	Oil, Gas or Water	Depth Found	Remarks
<u>Fracturing Record</u>							
Total depth 6085' Rotary - 6074' Landing Flange Meas. Top of Chert 5647' - Oriskany 5801'. Gas 5680-5700', 5968-5971' gauged 135/10 W 2" - 490 MCF. Perforated 5658-5660', 5663-5666', 5669-5686', 5688-5690', 5691-5695', 5697-5699' with 80 shots.							
4-27-59 - Fractured the Chert. Pumped in 250 gallons mud acid - 50 barrels water with Tergitol, 220 barrels water with 5,500# sand. Before fracturing gas gauged 239 MCF. After cleaning out after fracturing gas gauged 736 MCF.							
Perforated 5797-5928' - gas gauged 10/10 W 5 1/2" - 823 MCF. Cleaned out and ran 5806' of 3 1/2" tubing - set packer at 5767'.							
Chert gas above packer gauged 778 MCF							
Oriskany gas under packer 47 MCF							
5-5-59 - Pumped in 1 bbl. gasoline to blanket packer and fractured Upper Oriskany zone. Pumped in 400 gallons mud acid. Loaded tubing with 2120 gallons of water and 1% Tergitol. Broke down with 1260 gallons water and tergitol. Used 4 pumps - time 4 1/2 minutes - 6.6 bpm. Maximum pressure 2700# - broke to 2500#. Used 200 perf balls, 16,000 gallons water and 8,600# sand. Time 36 minutes - 444 gpm. Flushed with 3,600 gallons water - 6 minutes - 600 gpm. Used 23,400 gallons fluid - well on vacuum 2 hours.							
5-11-59 - Released packer and pulled tubing. Gas from Chert 762 MCF - from upper Oriskany zone 1,400 MCF. Total gas 2,162 MCF.							
5-16-59 - Perforated 5954-76' and 5948-54'.							
5-18-59 - Fractured Chert and Oriskany. Used 450 gallons MCA. Pumped in 50 bbls. water on top of acid before starting sand. Pumped in 220 bbls. water and sand. Started sand at 1/2#/gallon increased gradually to 1#/gallon. Flushed with 155 bbls. water. Used 125 gallons 0-8 Tergitol, 125 gallons TMN Tergitol, 10,000# 20-40 sand. 1,000# 10-30 sand. Pumping time water and sand 20 minutes. Injection rate 25 3/4 bpm. Breakdown pressure 1600# - 7 minutes after pumping broke to 1250#. Pressure increased when sand was on bottom at 1400# - last 5 minutes of treatment pressure rose gradually to 1600#.							
Cleaned out to 6031' - Ran 3" tubing and set packer at 5947' - gas gauging 7/10 W 2" - 112 MCF on tubing - 62/10 M 2" - 1,225 MCF on braden head.							
5-24-59 - 22 hours 680# on tubing - B. H. gas gauging 1,347 MCF.							
5-25-59 - Pumped in 300 gallons MCA. Loaded tubing with water, 2000 gallons. Broke down with 1,500 gallons water (3/4% Tergitol) Pressure 3300# - broke to 3100# - 2 1/2 minutes - injection rate 6000 gpm. Started sand 1/2#/gallon. Pressure 3100# in 6 minutes pressure dropped to 2800# Increased sand gradually to 1 1/2#/gal. Pressure at end of treatment 3100#. Flushed with 2940 gallons water. Pressure started at 3100# - dropped to 2900# at end of treatment. Used 300 gallons MCA, 16,800 gallons water. Flushed with 2940 gallons - total 23,540 gallons and 23,600# sand.							
5-27-59 - Pulled tubing and cleaned out to 5997' - Ran 3 1/2" tubing with packer set between Chert and Sand.							
Gas on Braden Head after tubing (Chert)					858,000 cu. ft.		
Gas on Tubing (Oriskany)					3,679,000 cu. Ft.		
Total gas					4,537,000 cu. ft.		
47 hour rock pressure 1560# on Chert; 760# on Oriskany.							
<u>Casing Record</u>							
2-26-59 - Ran 11 3/4" casing with shoe set at 41'DLM. Cemented with 20 sacks.							
3- 4-59 - Ran 8 5/8" 24# casing with shoe set at 1250'DLM. Cemented with 200 sacks.							
4-11-59 - Ran 5" casing with shoe and 5 centralizers set at 6074' Landing Flange Meas. Cemented with 200 sacks.							

Date June 24, 19 59

APPROVED Columbian Carbon Company, Owner

By W. S. Moore, Manager of Production.
(Title)