

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all of the information required by Paragraph 5 of the rules and regulations of the Oil and Gas Section of the mining laws of West Virginia.

By Roy Boston

5.27 S.
0.12 W
1 SE (I-4)

New Location
 Drill Deeper
 Abandonment

U.S.G.S. Datum.

Company	<u>Cabot Corporation</u>
Address	<u>Box 1873 Charleston W.Va.</u>
Farm	<u>The Putnam Co. Unit No. 21</u>
Tract	Acres <u>717.75</u> Lease No. <u>3-464</u>
Well (Farm) No.	<u>48</u> Serial No. <u>1545</u>
Elevation (Spirit Level)	<u>954.46</u>
Quadrangle	<u>Widfield - NE</u>
County	<u>Putnam</u> District <u>Union</u>
Engineer	<u>Roy Boston</u>
Engineer's Registration No.	<u>3204</u>
File No.	Drawing No.
Date	<u>3-10-64</u> Scale <u>1" = 660'</u>

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

WELL LOCATION MAP
 FILE NO. PUT-700

+ 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.

No Samples

Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 15

Quadrangle Winfield

Permit No. PUT-700

WELL RECORD

Oil or Gas Well GAS
(KIND)

Company Cabot Corporation
Address Charleston, West Virginia
Farm Putnam Company Acres 717.75
Location (waters) _____
Well No. 48, Serial 1545 Elev. 954
District Union County Putnam
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by The Putnam Company, c/o
Mr. Harry Campbell Address Charleston, W. Va.
Drilling commenced July 19, 1964
Drilling completed August 6, 1964
Date Shot _____ From _____ To _____
With _____
Open Flow /10ths Water in 84 Mcf Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure 1390 lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16	23	23	
13			
10	972	276	Size of
8 1/4			
6 5/8	2687	--	Depth set
5 3/16			
4 1/2	5186	5186	Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED 10" SIZE 200 No. Ft. _____ Date
7" - 300'; 4 1/2" - 250'.

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

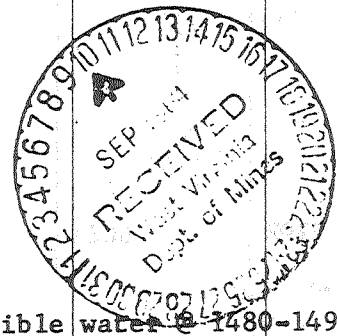
WELL FRACTURED with 852 bbls. fluid and 15,000# sand. Open flow before fracture 35 Mcf.
(Perforated with three shots per foot 5114-5109 and 5107-5104.)

RESULT AFTER TREATMENT 203 Mcf

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water 16 1/2 Feet Salt Water 520 Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Clay & Stone			0	20	Water	16	Small seep
Sand			20	35			
Red Rock			35	55			
Sand			55	65			
Red & Grey Shale			65	100			
Sand			100	140	Water	110	2 bbl per hr
Shale & Shell			140	235			
Sand			235	280			
Shale & Shell			280	330			
Sand			330	360			
Red & Grey Shale			360	445			
Sand			445	455			
Shale			455	470			
Shale & Shell			470	515			
Sand			515	540	Water	520	10 bbl.
Sandy Shale			540	595			
Sand			595	620			
Sandy Shale			620	655			
Sand			655	860			
Red Rock			860	885			
Sand			885	905			
Shale			905	1170			
Sand			1170	1220			
Sandy Shale			1220	1235			
Sand			1235	1250			
Shale & Shell			1250	1395			
Sand			1395	1550			
Shale & Shell			1550	1600			



Possible water @ 1480-1490.

Formation	Color	Hard or Soft	Top /5	Bottom	Oil, Gas or Water	Depth Found	Remarks
Sand			1600	1635			
Shale & Shell			1635	1680			
Sand & Shale			1680	1750			
Salt Sand			1750	1900	Water	1735	Hole full
Hard Sandy Lime			1900	2165			
INJUN SAND			2165	2203			
Shale			2203	2215			
Shale & Shell			2215	2260			
Sand			2260	2280			
Shale & Shell			2280	2660			
Sand			2660	2670			
Shale & Shell			2670	2690			Log tops:
Shale	Black		2690	2695			Sunbury 2616-2636
Sandy Shale			2695	2715			Berea 2636-84
Shale & Shell			2715	5010			Grand 5015
CORNIFEROUS			5010	5104			meas from top
ORISKANY			5104	5120			8' above Gr etc
Lime			5120	5125			
Sand			5125	5157			
Lime			5157	5200			
TOTAL DEPTH				5200			
					5010	5104	5157
					954	954	954
					4056	4150	4203

Date September 3, 1964, 19

APPROVED CABOT CORPORATION

Owner

By [Signature]
Manager (Title)