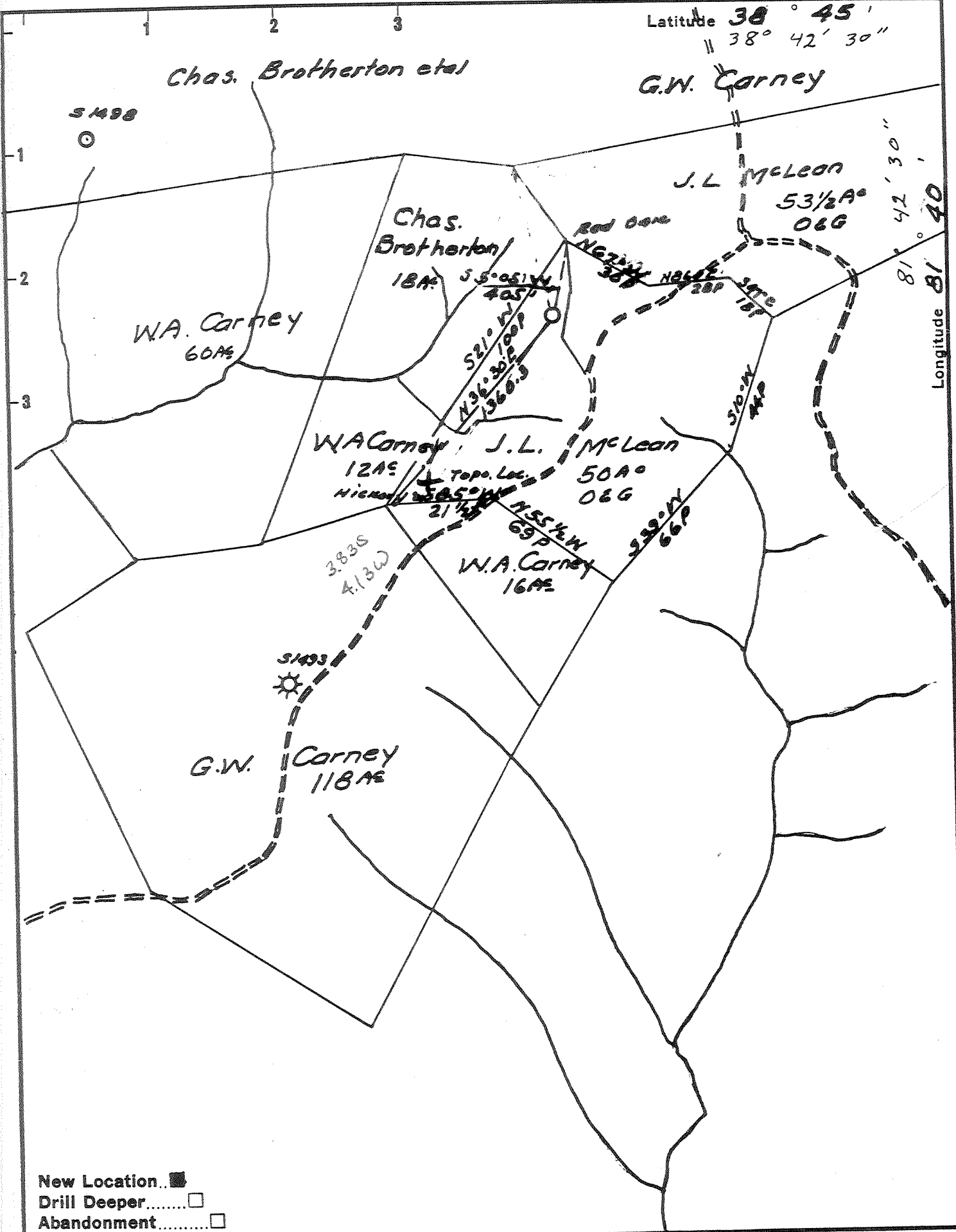


9600'

Latitude  $38^{\circ} 45'$   
||  $38^{\circ} 42' 30''$



New Location..    
 Drill Deeper.....    
 Abandonment.....

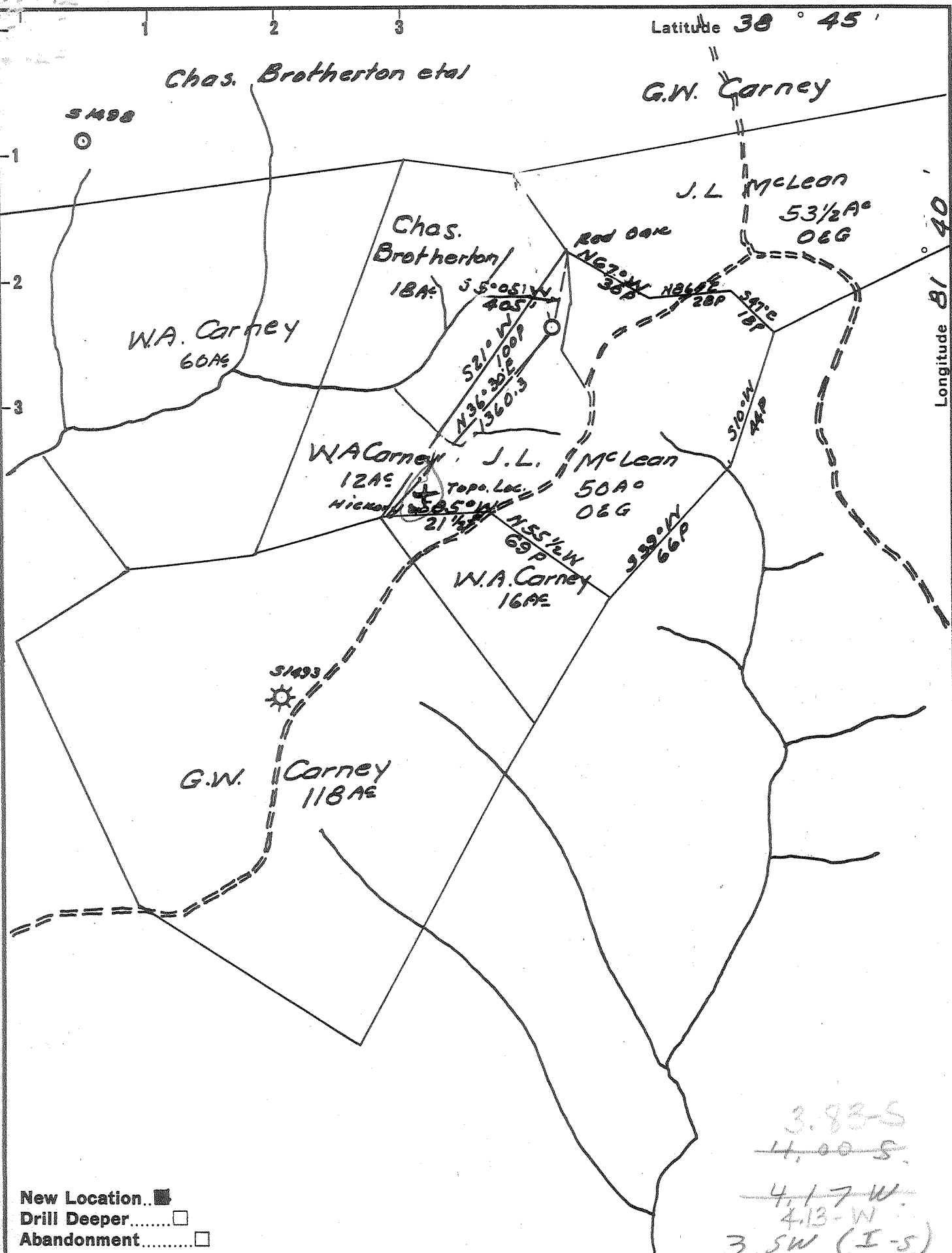
Company Cabot Oil and Gas Corp.   
 Address Box 628, Charleston, W. Va.   
 Farm G.W. Carney et al Unit W4 483   
 Tract \_\_\_\_\_ Acres \_\_\_\_\_ Lease No. 3-463   
 Well (Farm) No. 2 Serial No. 1500   
 Elevation (Spirit Level) 1064.78   
 Quadrangle Kenna NW   
 County Jackson District Ripley   
 Engineer Ray Boston   
 Engineer's Registration No. 3204   
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_   
 Date 7-15-59 Scale 1" = 660'

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

WELL LOCATION MAP  
 FILE NO. JAC-1003-F1A2

+ 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.

APR 29 1985



New Location...    
 Drill Deeper.....    
 Abandonment.....

3.88-S  
~~4.00-S~~  
 4.17-W  
 4.13-W  
 3 SW (I-5)

Company Godfrey L. Cabot Inc.  
 Address Box 1473 Charleston Wva.  
 Farm G.W. Carney et al Unit Wv 483  
 Tract \_\_\_\_\_ Acres \_\_\_\_\_ Lease No. 3-463  
 Well (Farm) No. 2 Serial No. 1500  
 Elevation (Spirit Level) 1064.78  
 Quadrangle Henna - NW  
 County Jackson District Ripley  
 Engineer Roy Boston  
 Engineer's Registration No. 3204  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 7-15-59 Scale 1" = 660'

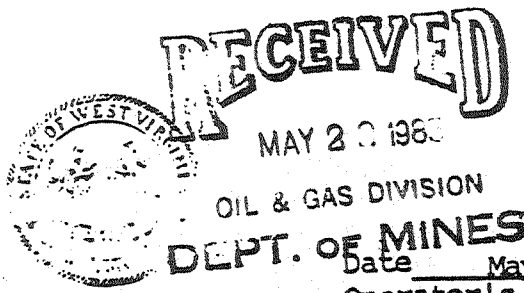
STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. J9C-1003

+ 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. Sampler 66 ~~37~~ (192) Deep Well

TV-35  
(Rev 8-81)



State of West Virginia  
Department of Mines  
Oil and Gas Division

OIL & GAS DIVISION  
DEPT. OF MINES

Date May 20, 1985  
Operator's Well No. 2  
Farm G. W. Carney  
API No. 47 - 035 - 1003 FRAC

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 1064.78' Watershed Eighteen Mile Creek  
District: Ripley County Jackson Quadrangle Kenna 7 1/2'

COMPANY Cabot Oil & Gas of W.V.  
ADDRESS P.O. Box 454, Glasgow, W.V. 25086  
DESIGNATED AGENT Robert E. Horrell  
ADDRESS P.O. Box 454, Glasgow, W.V. 25086  
SURFACE OWNER R. L. Bush  
ADDRESS Rt. 1, Box 263, Given, W.V. 25245  
MINERAL RIGHTS OWNER see Attached Sheet  
ADDRESS \_\_\_\_\_  
OIL AND GAS INSPECTOR FOR THIS WORK Jerry  
Tephabock ADDRESS Rt. 1, Box 101-A  
Ripley, W.V. 25271  
PERMIT ISSUED \_\_\_\_\_  
WORKOVER COMMENCED 5/6/85  
WORKOVER COMPLETED 5/11/85  
IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON \_\_\_\_\_

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8			
7			
5 1/2	Squeeze	Cemented	4560-4240'
4 1/2			
3			
<del>2</del> 1 1/2		4516	seating nipple @ 4487'
Liners used			

GEOLOGICAL TARGET FORMATION Huron Shale Depth 4290 - 4502 feet  
Depth of completed well PBTD=4545 feet Rotary \_\_\_ / Cable Tools \_\_\_  
Water strata depth: Fresh \_\_\_ feet; Salt \_\_\_ feet  
Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? \_\_\_\_\_

OPEN FLOW DATA

Producing formation Huron Shale Pay zone depth 4292-4501 feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
4 hr Final open flow 223 Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure 725 psig (surface measurement) after 72 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

JUN 03 1985

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.  
 5/06/85 - MIRU Pool Well Service. Set Baker Model S BP @ 4598'. Dumped 2 sks Cal-seal.  
 Ran Howco 5 1/2" cmt retainer to 4545'. R/U Dowell, squeezed 5 1/2" w/100 sks 50/50 poz.  
 10% salt & friction reducer. TOC 4240' 100% bond. Perf Huron shale 4292', 4309', 4311',  
 4330', 4337', 4379', 4391', 4408', 4412', 4420', 4426', 4432', 4440', 4454', 4467', 4472',  
 4493', & 4501', (18 holes). Ran Howco RITS pkr on 2 7/8" EUE tbg. R/U Dowell, pumped  
 500 gal 15% HCL. BD Huron @ 3350 psi & pumped 1,000,000 Scf/N<sub>2</sub> @ 28,000 Scf/min. ATP  
 3400 psi. ISIP 1550 psi. Pumped 4000 gal foam pad, treated w/30,000# 20/50 sand, max  
 1 1/2#/gal, 1.5 BPM H<sub>2</sub>O, 9000 Scf/min N<sub>2</sub>. AIR 15 BPM 90 Q foam. ATP 3100 psi, TF 64  
 bbls, SL 55 bbls, 400,000 Scf/N<sub>2</sub>. ISIP 1750 psi, 15 min 1600 psi, released thru 1/8"  
 choke. POOH w/2 7/8" EUE tbg & RITS pkr. Ran 133 jts 1 1/2" LORD tbg, seating nipple  
 @ 4487' & perf'd jt. Total tbg 4516'. Tested 5/16/85. SICP & SITP 725 psi (Shale).  
 4 hr O/F. 28/10 H<sub>2</sub>O thru 2", 223 Mcf/d.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Plugged back Oriskany			PBTD	4545	
See attached original well record.					

(Attach separate sheets as necessary)

Cabot Oil & Gas of W.V.

Well Operator

By:

*Robert E. Howell*

Date:

May 20, 1985

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION 4

Quadrangle KENNA

Permit No. JAC-1003

WELL RECORD

Oil or Gas Well GAS  
(KIND)

Company Godfrey L. Cabot, Inc.  
Address Charleston, W. Va.  
Farm G. W. Carney Unit Acres \_\_\_\_\_

Location (waters) \_\_\_\_\_

Well No. 2, Serial 1500 Elev. 1065

District Ripley County Jackson

The surface of tract is owned ~~in fee~~ by C.H. Brotherton  
Address Given, W. Va.

Mineral rights are owned by J.L. McLean Hrs.  
1710 Kanawha Blvd., E Address Charleston, W. Va.

Drilling commenced November 11, 1959

Drilling completed March 4, 1960

Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

With \_\_\_\_\_

Open Flow /10ths Water in \_\_\_\_\_ Inch

\_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch

Volume \_\_\_\_\_ Cu. Ft.

Rock Pressure 1380# lbs. 24 hrs.

Oil \_\_\_\_\_ bbls., 1st 24 hrs.

WELL ACIDIZED \_\_\_\_\_

WELL FRACTURED 3-15-60 with 14,000 gallons of water and 25,000# of sand.

RESULT AFTER TREATMENT Produced 400 Mcf against 80# line pressure.

ROCK PRESSURE AFTER TREATMENT \_\_\_\_\_

Fresh Water \_\_\_\_\_ Feet Salt Water \_\_\_\_\_ Feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16	19	19	
18	313	--	8 5/8" B.H. Packer
10	1108	1108	<del>PACKER</del>
8 3/4	1884	1426	7" B.H. Packer
6 3/4	2384	2384	Depth set
5 3/16	5216	5216	
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED 5 1/2" SIZE 300 No. Ft. \_\_\_\_\_ Date \_\_\_\_\_

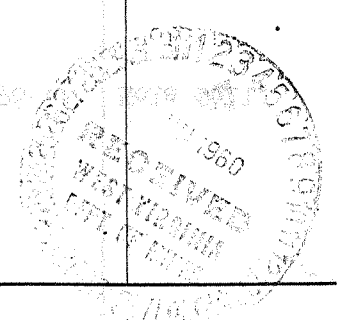
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Red Rock & Shale			0	30			
Sand			30	50			
Red Rock			50	145			
Sand			145	160			
Red Rock			160	205			
Shale			205	265			
Red Rock			265	285			
Sand			285	314			
Red Rock			314	362			
Sand			362	383			
Red Rock			383	420			
Sand - 1st Part Sand?			420	542			
Shale			542	570			
Red Rock			570	740			
Shale			740	771			
Red Rock			771	790			
Shale			790	837			
Red Rock			837	912			
Sand			912	1017			
Red Rock			1017	1036			
Shale			1036	1055			
Sand			1055	1080			
Shale			1080	1103			
Lime			1103	1124			
Slate & Shell			1124	1235			
Sand			1235	1265			
Slate & Shell			1265	1322			
Sand			1322	1393			
Slate & Shell			1393	1446			
Sand			1446	1535			

(over)



Formation	Color	Hard or Soft	Top <sup>4</sup>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shale			1535	1545			
Sand			1545	1668			
Lime			1668	1684			
Shale	Brown		1684	1726			
Shale			1726	1775			
Shale	Brown		1775	1878			
SALT SAND			1878	2091	Water	1898	Hole full.
BIG LIME			2091	2289			
ENJUN			2289	2384			
Slate & Shell			2384	2747			
BEREA			2747	2759	Gas	2753	Show only.
Slate & Shell			2759	3960	Gas	3459	Show.
Shale	Brown - 441		3960	3997			
Slate & Shell			3997	4233			
Shale	Brown		4233	4347			
Slate & Shell			4347	4362			
Shale	Brown		4362	4535	Gas	4120-30	15 Mcf
Slate & Shell		J/A	4535	4940			
Shale	Brown		4940	5158			
CORNIFEROUS	463		5158	5251			
ORISKANY			5251	5278	Gas	5262-34	9 Mcf
Lime			5278	5279			
Sand	<i>Heldenberg</i>		5279	5302			
Lime			5302				
TOTAL DEPTH				5303	CEMENTED BACK TO 5286		
	from nearby logs			<i>485</i>			
	2759						
	3960						
	4535						
	4700						
	4940						
	5040						
	5138						
	5158						

METT RECORD

Date May 27, 19 60

APPROVED GODFREY L. CABOT, INC., Owner

By *H.J. Simmons, Jr.* (Title) Gen. Supt.

FILE COPY  
**RECEIVED**  
MAR 25 1985



1) Date: March 21, 19 85  
2) Operator's Well No. G.W. Carney #2  
3) API Well No. 47 035 1003-Frac  
State County Permit

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

OIL & GAS DIVISION APPLICATION FOR A WELL WORK PERMIT

- 4) WELL-TYPE: A Oil X Gas X  
B (If "Gas", Production          / Underground storage          / Deep          / Shallow         )
- 5) LOCATION: Elevation: 1064.78' Watershed: Eighteen Mile Creek  
District: Ripley County: Jackson Quadrangle: Kenna 7 1/2'
- 6) WELL OPERATOR Cabot Oil & Gas Corp. of WV 7) DESIGNATED AGENT Robert E. Horrell  
Address P.O. Box 628 Address P.O. Box 628  
Charleston, West Virginia 25322 Charleston, West Virginia 25322
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Jerry Tephabock  
Address Route 1, Box 101-A  
Ripley, WV 25271
- 9) DRILLING CONTRACTOR: Name UNKNOWN  
Address
- 10) PROPOSED WELL WORK: Drill          / Drill deeper          / Redrill          / Stimulate X  
Plug off old formation          / Perforate new formation X  
Other physical change in well (specify) PLUG BACK ORISKANY
- 11) GEOLOGICAL TARGET FORMATION, HURON SHALE
- 12) Estimated depth of completed well, PBTD 4540 feet
- 13) Approximate trata depths: Fresh, NR feet; salt,          feet.
- 14) Approximate coal seam depths: NR Is coal being mined in the area? Yes          / No
- 15) CASING AND TUBING PROGRAM WORKOVER

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling		Left in well	Kinds
Conductor	16		65			EXISTING	19'		
Fresh water	13		48			313	---		
Coal	10		32.75			EXISTING	1108'	ON SHOE	Sizes
Intermediate	8		24			EXISTING	1884'	ON PACKER	
Production	7		28			EXISTING	2384'		Depths set
Tubing Prod.	5-1/2		17			EXISTING	5216'	300'	
Liners									Perforations:
Tubing	1-1/2		2.75	X		PROPOSED	4500'		Top Bottom

- (1) Set bridge plug @ 4650' and 2 sks. cal seal  
(2) Set cement retainer @ 4540' and squeeze cement 5-1/2" csg. 4560-4100'

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-035-1003-Frac Date April 23 1985

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires April 23 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
30	SW	MX	MH	16850

*Margaret J. Hasse*  
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location. File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.