

0.57 mi. S  
1.00 mi. W  
0.22 S  
0.39 W

ACCURACY: 1' / 200'

Source of Elevation OLD PRODUCING WELL (859')

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

- New Location
- Drill Deeper
- Abandonment
- Fracture  - 12/7/84
- Redrill

*Chet Waterman*

Company Cabot Oil & Gas Co. of W. Va.  
 Address P.O. BOX 628, CHARLESTON, W.V. 25322  
 Farm CLIFFORD C. CARPENTER  
 Tract \_\_\_\_\_ Acres 222 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 908.3'  
 Quadrangle CHARLESTON  
 County KANAWHA District UNION  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 68003-55 Drawing No. \_\_\_\_\_  
 Date 4/18/68 Scale 1" = 1320'

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

WELL LOCATION MAP

FILE NO. KAN-2250-PP-Frac

+ 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.

47-039

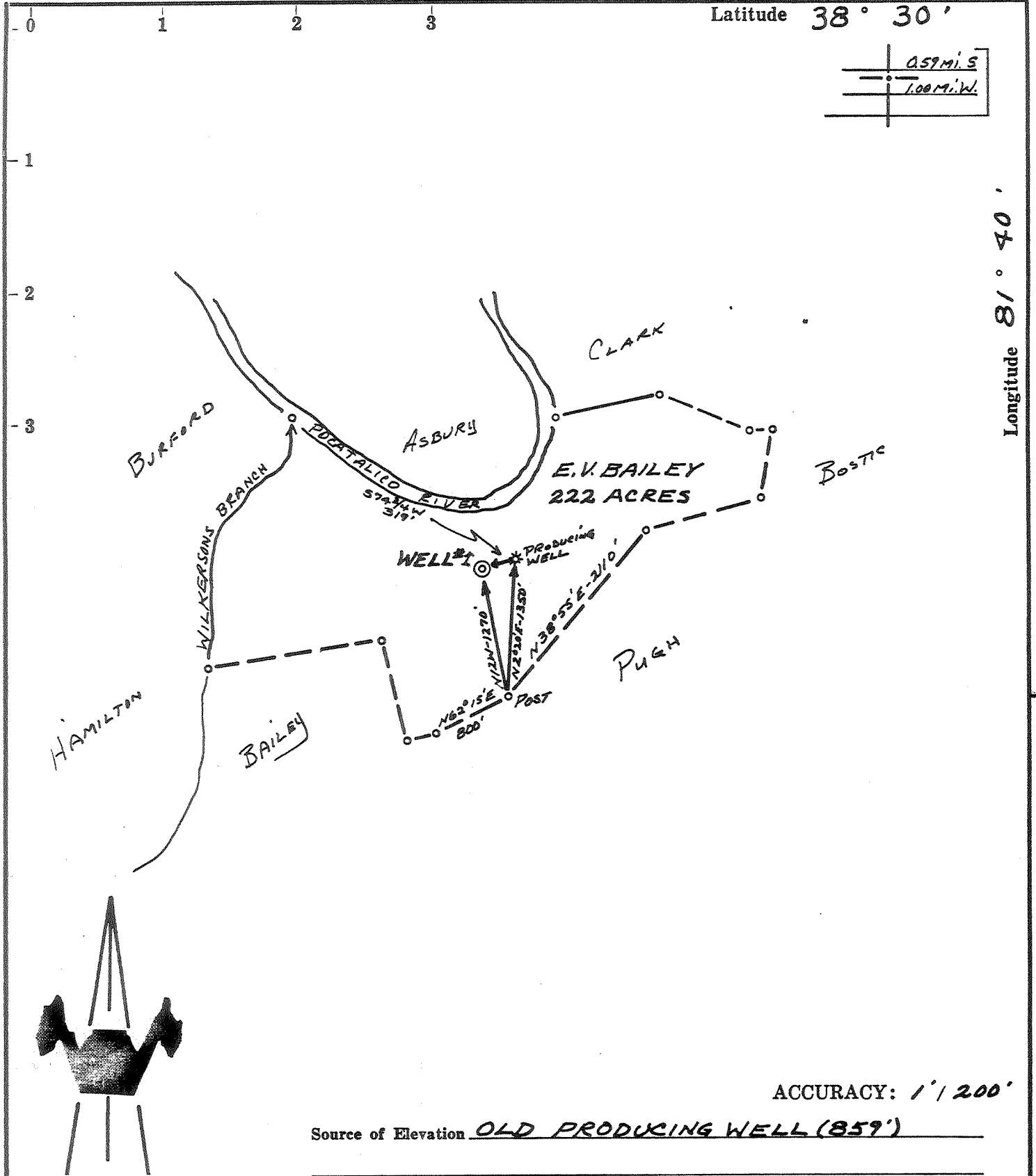
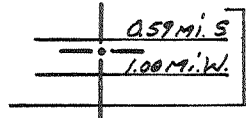
JUL 22 1965

DEEPWELL

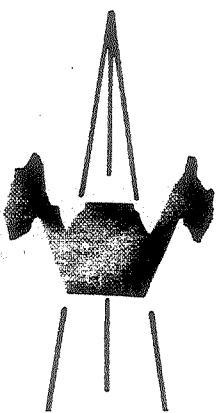
KAN 2250-PP-FRAC-P

4/18/68

Latitude 38° 30'



Longitude 81° 40'



ACCURACY: 1' / 200'

Source of Elevation OLD PRODUCING WELL (859')

- New Location
- Drill Deeper
- Abandonment
- Fracture  - 12/7/84
- Redrill

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*Chet Waterman*

Company Cabot Oil & Gas Co. of W. Va.  
 Address P.O. BOX 628, CHARLESTON, W.V. 25322  
 Farm CLIFFORD C. CARPENTER  
 Tract \_\_\_\_\_ Acres 222 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 908.3'  
 Quadrangle CHARLESTON  
 County KANAWHA District UNION  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 68003-55 Drawing No. \_\_\_\_\_  
 Date 4/18/68 Scale 1" = 1320'

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

**WELL LOCATION MAP**

FILE NO. KAN-2150-PP-Frac.

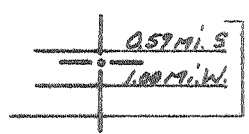
DEC 31 1984

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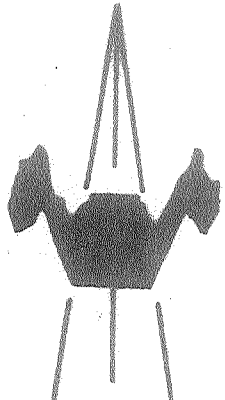
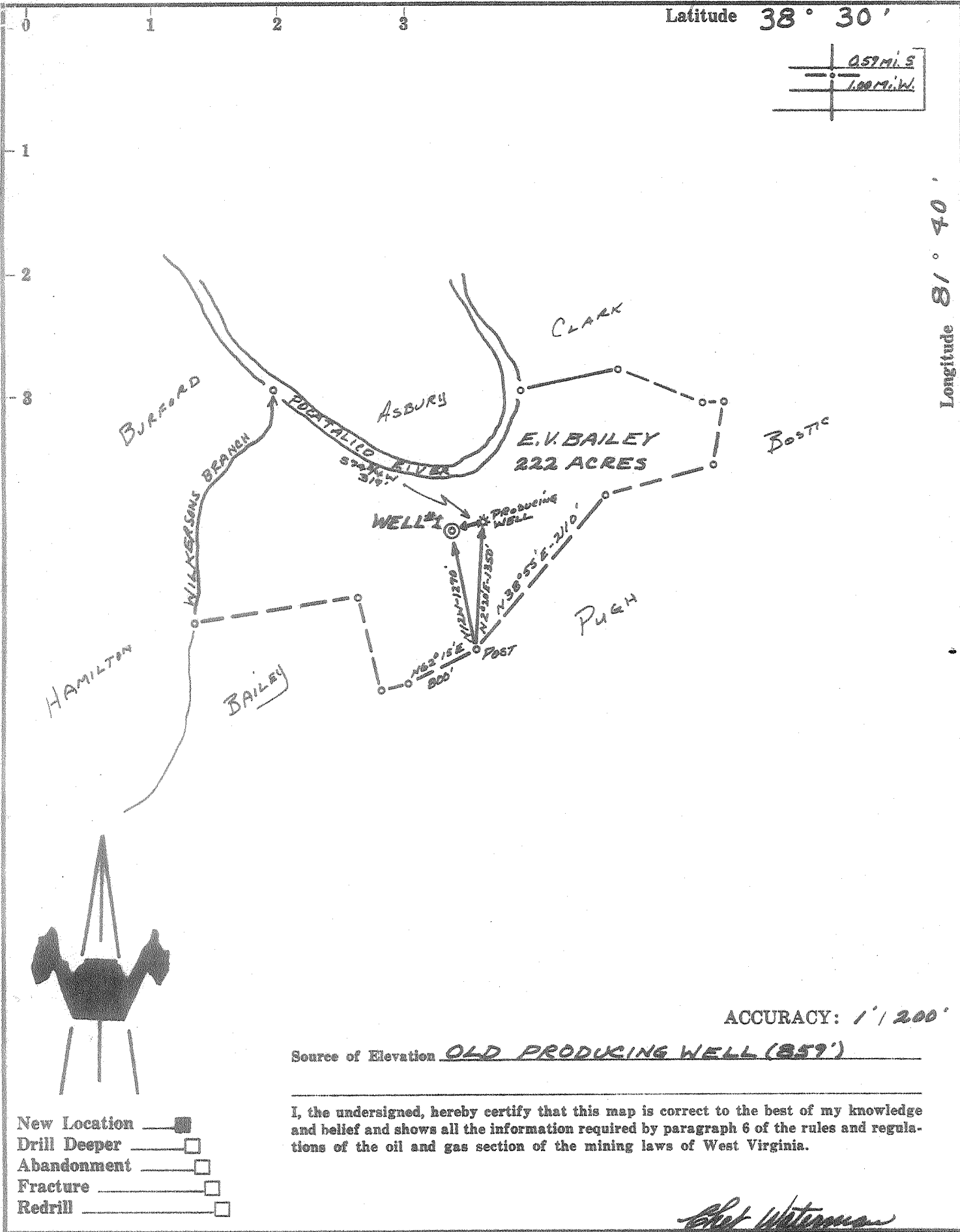
— Denotes one inch spaces on border line of original tracing.

47-039

Latitude 38° 30'



Longitude 81° 40'



ACCURACY: 1' / 200'

Source of Elevation OLD PRODUCING WELL (857')

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

*Chet Waterman*

Company A. E. D., INC.  
 Address P.O. BOX 628, CHARLESTON, W.V.  
 Farm CLIFFORD C. CARPENTER  
 Tract \_\_\_\_\_ Acres 222 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 908.3'  
 Quadrangle CHARLESTON NW  
 County KANAWHA District UNION  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 68003-35 Drawing No. \_\_\_\_\_  
 Date 4/18/68 Scale 1" = 1320'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. KAN-2250

+ 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.

*6-6-68 Newby*



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

Rotary   
Spudder   
Cable Tools   
Storage

Quadrangle Charleston  
Permit No. Kan.-2250

WELL RECORD

Oil or Gas Well Gas  
(KIND)

Company	Appalachian Exploration & Dev., Inc.			Casing and Tubing	Used in Drilling	Left in Well	Packers
Address	Box 628, Charleston, W.Va. 25322			Size			
Farm	Clifford C. Carpenter Acres. 222			16			Kind of Packer Baker
Location (waters)	Pocatalico River			13-3/8	97'	97'	
Well No.	1 Elev. 908'			9-5/8	1966.77'	1966.77'	Size of 7" x 2-7/8
District	Union County Kanawha			8 1/4			Depth set. 5677'
The surface of tract is owned in fee by Clifford C. Carpenter Rt. 4, Box 354 Address Charleston, W.Va.				7"	5688'	5688'	
Mineral rights are owned by Clifford C. Carpenter Rt. 4, Box 354 Address Charleston, W.Va.				5 3/16			
Drilling commenced	4-27-68			4 1/2			Perf. top -
Drilling completed	5-9-68			3			Perf. bottom -
Date Shot	From - To -			2			Perf. top -
With				Liners Used			Perf. bottom -
Open Flow	/10ths Water in _____ Inch			Attach copy of cementing record. (See back of Report.)			
	/10ths Merc. in _____ Inch			CASING CEMENTED	SIZE	No. Ft.	Date
Volume	Cu. Ft. _____			Amount of cement used (bags) _____			
Rock Pressure	lbs. _____ hrs. _____			Name of Service Co. Halliburton Co.			
Oil	bbls., 1st 24 hrs. _____			COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
WELL ACIDIZED (DETAILS)	500 gallons mud acid			_____ FEET _____ INCHES _____ FEET _____ INCHES			
WELL FRACTURED (DETAILS)	38,500 gallons water with 20,000# sand. Water frac.			_____ FEET _____ INCHES _____ FEET _____ INCHES			
RESULT AFTER TREATMENT (Initial open flow or bbls.)	46,000 Mcf			<del>46,000 Mcf</del>			
ROCK PRESSURE AFTER TREATMENT	1360			HOURS 24			
Fresh Water	None Feet --			Salt Water -- Feet --			
Producing Sand	Newburg.			T. Depth 5750'			

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Top soil & sand			0	97			
Sand			97	100			
Shale and sand			100	565			
Sand and shale			565	1370			
Sand			1370	1595			
Shale and sand			1595	1710			
Limestone			1710	1880			
Sand - <i>Iman</i>			1880	1955			
Sand and shale			1955	2750			
Shale			2750	4870			
Limestone (Onondaga)			4870	4980			
Sandstone (Oriskany)			4980	5025			
Lime, dolomite & anhydrite			5025	5724			
Sandstone (Newburg)			5724	5732			
Dolomite			5732	5750			

*TD McKeezie*

*Log tops*  
B. Lm 1676-1862  
B. Inj. 1868-1967  
Perea 2338-50  
Onondaga 4860-4957  
Oriskany 4957-92  
Newburg 5721-27  
908  
4813  
5721  
4990  
741



AUG 5 1968



1) Date: November 14, 19 84  
 2) Operator's Well No. C.C. Carpenter #1  
 3) API Well No. 47 - 039 - 2250-PP-FR  
 State County Permit

**RECEIVED**  
NOV 15 1984

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES, OIL AND GAS DIVISION  
APPLICATION FOR A WELL WORK PERMIT

OIL & GAS DIVISION

- 4) WELL TYPE: Gas  / Oil   
 B (If "Gas", Production \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X /)
- 5) LOCATION: Elevation: 908.3' Watershed: Pocatalico River  
 District: Union County: Kanawha Quadrangle: Pocatalico 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, WV 25322 Charleston, WV 25322
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Russell Beall Name UNKNOWN  
 Address P.O. Box 160 Address \_\_\_\_\_  
Philippi, WV 26416 866-4608
- 10) PROPOSED WELL WORK: Drill \_\_\_\_\_ / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate X /  
 Plug off old formation X / Perforate new formation X /  
 Other physical change in well (specify) Plug back Newburg
- 11) GEOLOGICAL TARGET FORMATION, Huron Shale
- 12) Estimated depth of completed well, 4200 feet
- 13) Approximate strata depths: Fresh, N/R feet; salt, N/R feet.
- 14) Approximate coal seam depths: N/R Is coal being mined in the area? Yes \_\_\_\_\_ / No X
- 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	Sizes
Conductor	13"					EXISTING	97'	100 sks.	Kinds	Baker
Fresh water										
Coal	9-5/8"	H-40	32#			EXISTING	1982'	420 sks.	Sizes	2-7/8 x 7
Intermediate										
Production	7"	N-80	23#			EXISTING	5703'	200 sks.	Depths set	5677'
Tubing	2"	J-55	4.6#	TO BE PULLED		EXISTING	5700'			
Liners									Perforations:	
	2"		4.6#			PROPOSED	4100'		Top	Bottom

1. Set bridge plug @ 5650' and dump 2 sks. calseal. 2. Set cement retainer @ 4200'.  
 3. Squeeze cement 7" csg. 4200-3700'.

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-039-2250-PP-FRAC Date December 7, 1984

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 December 7, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
30	MJH	MJH	MJH	014123

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

