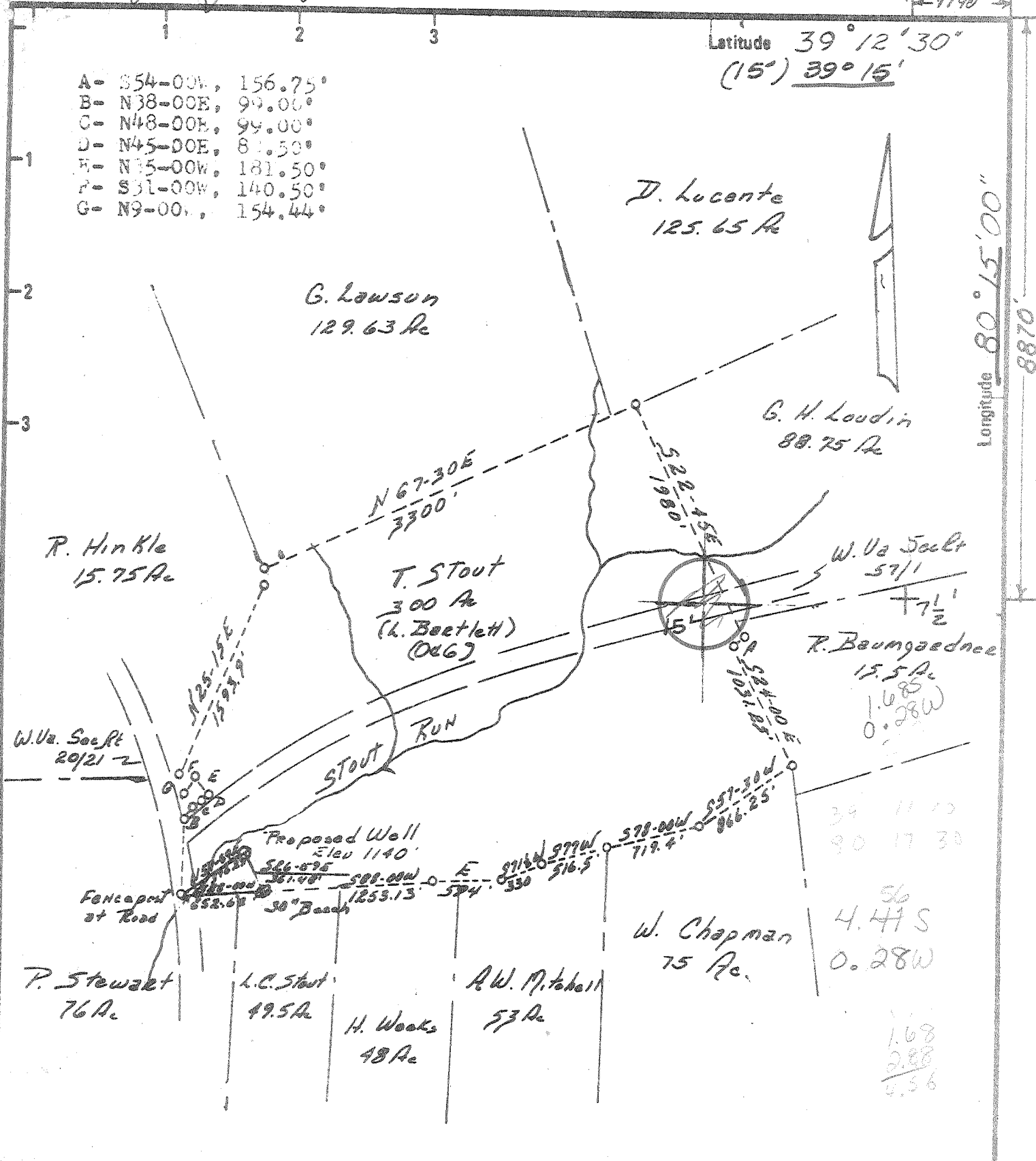


Latitude $39^{\circ} 12' 30''$
(15') $39^{\circ} 15'$

Longitude $80^{\circ} 15' 00''$
8870'

- A- S54-00W, 156.75°
- B- N38-00E, 99.00°
- C- N48-00E, 99.00°
- D- N45-00E, 81.50°
- E- N35-00W, 181.50°
- F- S31-00W, 140.50°
- G- N9-00, 154.44°



New Location

Drill Deeper

Abandonment

Minimum Error of Closure ± 0.00

Source of Elevation ± 0.00

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.

Company PETROLEUM DEVELOPMENT CORP.

Address 100 E. MAIN ST. MARTINSBURG, W. VA.

Farm J. H. BARTLETT, TONIS H. STOUT ELYX

Tract _____ Acres 100 Lease No. _____

Well (Farm) No. 4 Serial No. _____

Elevation (Spirit Level) 1040 NE

Quadrangle BOUND STATION, WESTON 15'

County HARRISON District SIMPSON

Engineer J. C. RYAN

Engineer's Registration No. 90

File No. _____ Drawing No. _____

Date APRIL 20, 1978 Scale 1" = 1000'

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

WELL LOCATION MAP

FILE NO. HAR-1924

+ 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.

47-033 SEP 11 1978

4500' Benson G 6 JARVISVILLE 101 (155)

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Balltown Benson 4284-88 550 bbl. 10,000# 80/100 40,000# 20/40
Bradford Bradford) 3318-26
Balltown Balltown) 3514-18 345 bbl. 10,000# 80/100 23,000# 20/40

*P.L. card perf in the 5th @ 2298-2308
 and Benson @ 4290-4298 ← double checked this on
 bulk density log OK*

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Clay, Sand			0	15	
Sand, Shale			15	54	
Sand			54	110	Fresh H ₂ O @ 35'
Sand, Shale			110	242	
Sand			242	376	Fresh H ₂ O Increase @ 145'
Sand, Shale			376	434	
Coal			434	437	
Sand, Shale			437	710	
Shale, R.R.			710	865	
Sand, Shale			865	1242	
Big Lime			1242	1350	
Big Injun			1350	1488	
Sand, Shale			1488	1856	
50 ft. Sand			1856	1917	
Sand, Shale			1917	2206	
4th Sand			2206	2240	
Sand, Shale			2240	2290	
5th Sand			2290	2332	
Sand, Shale			2332	2891	
Upper Speechley			2891	2904	
Sand, Shale			2904	2989	
Speechley			2989	3001	
Sand, Shale			3001	3314	
Balltown			3314	3326	
Sand, Shale			3326	3520	
Bradford			3520	3527	
Sand, Shale			3527	4282	
Benson Sand			4282	4298	
Sand, Shale			4298	5414	T.D.

(Attach separate sheets to complete as necessary)

Petroleum Development Corporation

Well Operator

By John C. Mason
 Its Petroleum Engineer

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

RECEIVED

AUG 24 1978

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE August 23, 1978

Surface Owner Tonis H. Stout etux
Address Route 1, Box 495 Mt. Clare WV
Mineral Owner Same
Address _____
Coal Owner Same
Address _____
Coal Operator _____
Address _____

Company Petroleum Development Corporation
Address P. O. Box 26 Bridgeport, WV 26330
Farm Lillie Bartlett Acres 300
Location (waters) Stouts Run
Well No. Four Elevation 1140', 1040'
District Simpson County Harrison
Quadrangle Mount Clare

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 12-24-78

Robert F. [Signature]

Deputy Director - Oil & Gas Division

INSPECTOR

TO BE NOTIFIED Paul Garrett

ADDRESS Clarksburg, West Virginia

PHONE 622-3871

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated March 29th 19 78 by Tonis H and Frances E. Stout made to Petroleum Development Corp and recorded on the 30th day of March 19 78 in Harrison County, Book 1064 Page 829

XX NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address of Well Operator

Very truly yours,
PETROLEUM DEVELOPMENT CORPORATION
(Sign Name) *[Signature]*

Well Operator

P. O. BOX 26

Street

BRIDGEPORT

City or Town

WEST VIRGINIA 26330

State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

HAR-1924

PERMIT NUMBER

47-033

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Unknown NAME Petroleum Development Corporation
 ADDRESS _____ ADDRESS P. O. Box 26 Bridgeport, WV 26330
 TELEPHONE _____ TELEPHONE 842-6256
 ESTIMATED DEPTH OF COMPLETED WELL: 4500' ROTARY XX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Benson
 TYPE OF WELL: OIL _____ GAS XX COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10 11 3/4	40'	40'	Surface
9 - 5/8			
8 - 5/8	900'	900'	Surface
7			
5 1/2			
4 1/2		4400'	-----
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 40' FEET 150' SALT WATER 700' FEET
 APPROXIMATE COAL DEPTHS 450'
 IS COAL BEING MINED IN THE AREA? NO BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title