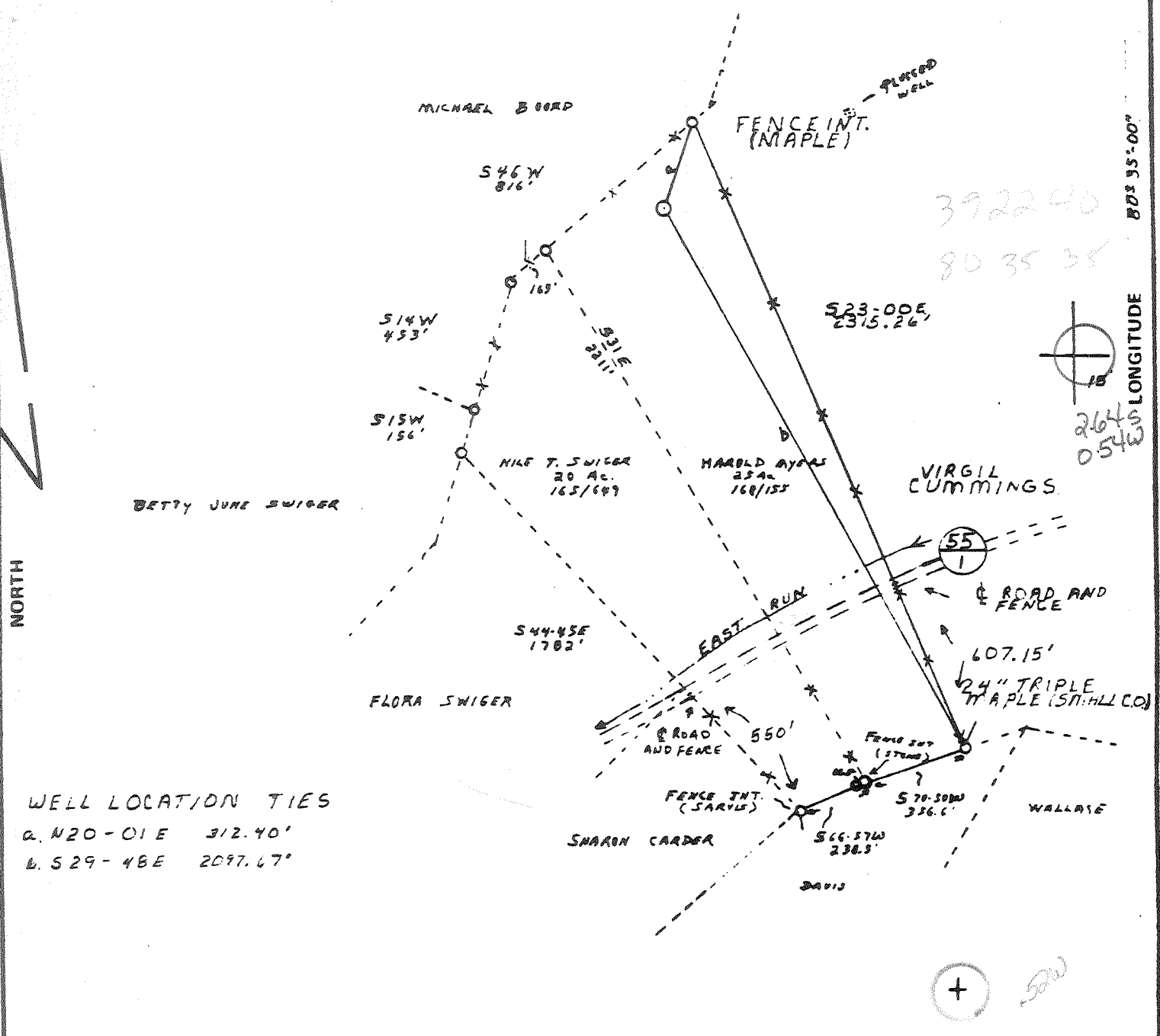


LATITUDE 39° 25' 00"

LONGITUDE 80° 35' 00"



WELL LOCATION TIES  
 Q. N20-01E 312.40'  
 W. S29-48E 2097.67'

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION BM @ JST. RTES.  
23 + 55/ EL. 828'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) Paul J. Smith  
 R.P.E. 6988 L.L.S. \_\_\_\_\_  
SMITH ENG'G. CO., BUCKHANNON, W.V.

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



DATE 21 MAY 19 81  
 OPERATOR'S WELL NO. 1A  
 API WELL NO. \_\_\_\_\_  
47 - 017 - 3012  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS.") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1270' WATER SHED EAST RUN  
 DISTRICT McCLELLAN COUNTY DODDRIDGE  
 QUADRANGLE FOLSON Centerpoint 15 C  
 SURFACE OWNER HAROLD MYERS ACREAGE 25  
 OIL & GAS ROYALTY OWNER BERNEDETTE POOLE ET AL LEASE ACREAGE 45  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BENSON ESTIMATED DEPTH 5000'  
 WELL OPERATOR PETROLEUM DEV. CORP. DESIGNATED AGENT PETROLEUM DEV. CORP.  
 ADDRESS 103 E. MAIN ST. ADDRESS 103 E. MAIN ST.  
BRIDGEPORT, W.V. 26330 BRIDGEPORT, W.V. 26330

6-4 SMITHTON FLINT - SEDALIA JUN 23 1981 JUN 29



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

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
K.B.-G.L.			0	10'	
Sand, shale, red rock			10'	196'	
Sand, shale			196'	370'	
Coal			370'	375'	
Sand, shale, Red rock			375'	639'	
Coal			639'	643'	
Sand, shale, red rock			643'	899'	
Coal			899'	908'	
Sand, shale			908'	1624'	
Coal			1624'	1627'	
Sand, shale			1627'	2178'	1/2" stream H <sub>2</sub> O @ 1680'
Big Lime			-2178'	2234'	
Big Injun			2234'	2368'	Show of gas @ 2303' 10/10=1" H <sub>2</sub> O
Sand, shale			2368'	2502'	
Weir			2502'	2558'	
Sand, shale			2558'	2714'	Gas check @2675' 10/10 = 1" H <sub>2</sub> O
Gantz			-2714'	2749'	
Sand, shale			2749'	2820'	
50 Ft.			2820'	2871'	
Sand, shale			2871'	2914'	
Gordon Stray			2914'	2964'	
Sand, shale			2964'	2993'	
Gordon			2993'	3040'	
Sand, shale			3040'	3132'	Gas check @ 3113' 12/10 = 1" H <sub>2</sub> O
4 Th			3132'	3189'	
Sand, shale			3189'	3266'	
5 Th			3266'	3318'	
Sand, shale			3318'	3602'	
Warren			3602'	3747'	
Sand, shale			3747'	3798'	
Upper Speechley			3798'	3925'	
Sand, shale			3925'	3944'	
Speechley			3944'	3979'	
Sand, shale			3979'	4118'	Gas check @ 4082' 12/10 = 1" H <sub>2</sub> O
Balltown			4118'	4278'	
Sand, shale			4278'	4653'	
Bradford			4653'	4796'	

CONTINUED ON NEXT PAGE

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION, BRIDGEPORT WV

Well Operator

By: John Mitchell

Date: \_\_\_\_\_

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."

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

Benson, Riley 325 bbl, 30,000 lb - 24/40, 750 gal., 15% acid  
5290-5297 5214-5216  
50,000 CF - Nitrogen

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand, shale			4796'	5004'	
Riley			5004'	5112'	
Sand, shale			5112'	5278'	
<u>Benson</u>			5278'	5334'	
Sand, shale			5334'	5502' TD	Gas check @ TD 10/10 = 2" H <sub>2</sub> O

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION, BRIDGEPORT WV

Well Operator

By:

Date:

January 28, 1982

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."

FEB 22 1982



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

MAY 29 1981

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 May 28, 1981

Surface Owner Harold Myers  
% Roy Torquer  
Address Box 206, Salem, West Virginia 26426  
Mineral Owner Leon F. Wilson  
Address 700 Stealey Avenue, Clarksburg, WV 26301  
Coal Owner Willis Tetrick, Jr. Maxwell Sutton  
Union National Bank  
Address Clarksburg, WV 26301  
Coal Operator None  
Address \_\_\_\_\_

Company Petroleum Development Corporation  
Address P. O. Box 26 Bridgeport, WV 26330  
Farm Bernadette Poole Acres 45  
Location (waters) East Run  
Well No. 1A Elevation 1270'  
District McClellan County Doddridge  
Quadrangle Folson

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 2-13-82.

INSPECTOR  
TO BE NOTIFIED Stephen Casey

ADDRESS Route 2 Box 232-D  
Jane Lew, WV 26378  
PHONE 884-7470

John R. Mutschelknaus  
Deputy Director - Oil & Gas Division  
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 January 15 1981 by Clarence W. Mutschelknaus made to Petroleum Development Corp. and recorded on the 2nd day of February 1981, in Doddridge County, Book 119 Page 285

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

Very truly yours,

(Sign Name)

John R. Mutschelknaus  
Well Operator  
PETROLEUM DEVELOPMENT CORPORATION  
P. O. Box 26  
Street

Address  
of  
Well Operator

Bridgeport  
City or Town  
WV 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

47-017-3012

PERMIT NUMBER

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: 5000 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			
<del>XXXX</del> 11 3/4	40'	40'	Circulate
5 - 5 8			
5 - 5 8	1650'	1650'	Circulate to surface
		5000'	300 sks
			Perf. Top
			Perf. Bottom
			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 80 FEET SALT WATER 180 FEET  
 APPROXIMATE COAL DEPTHS 300  
 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 hereof.

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 operation 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