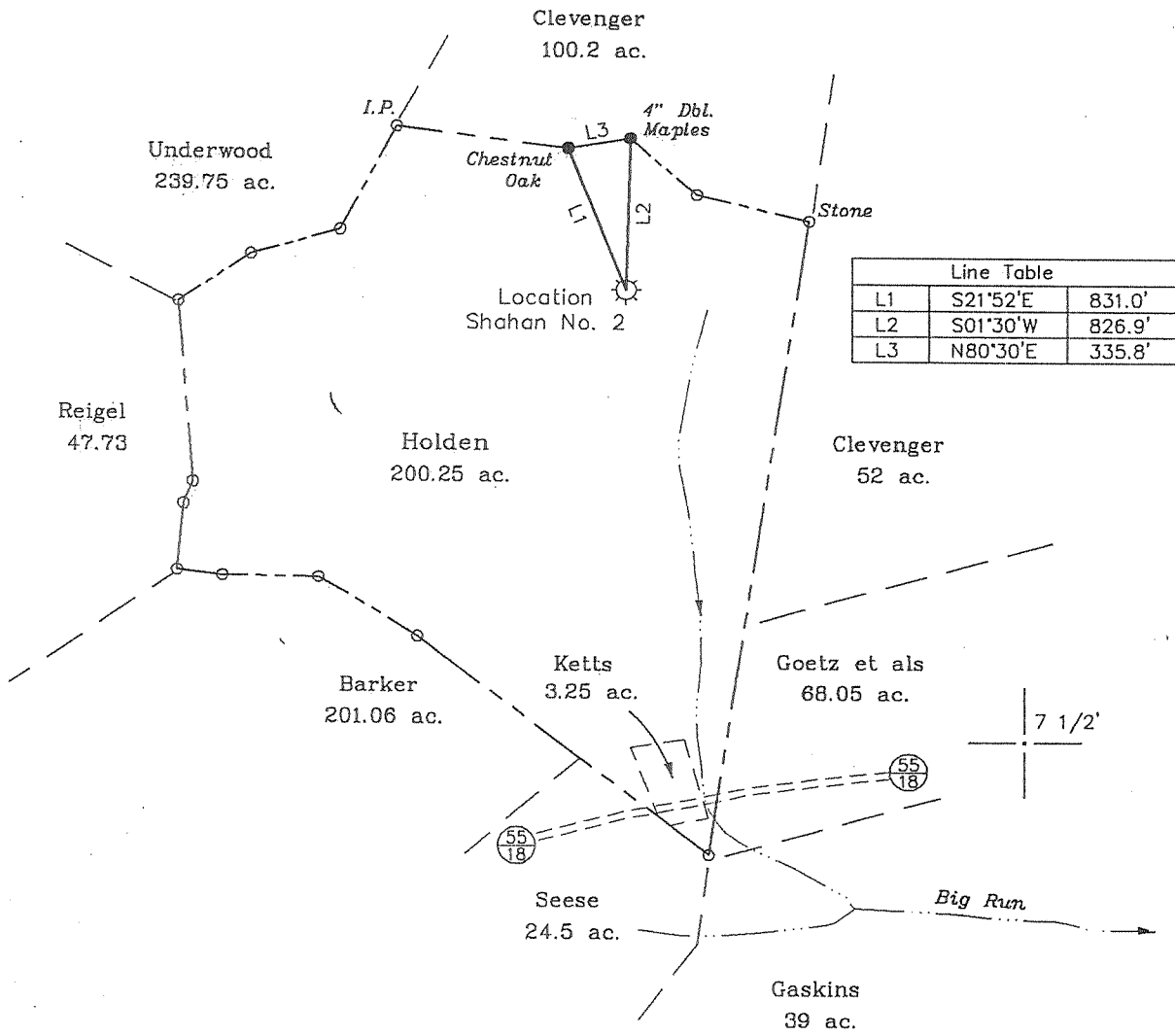


LATITUDE 39-22-30 N

LONGITUDE 80-35-00 W

11,350'

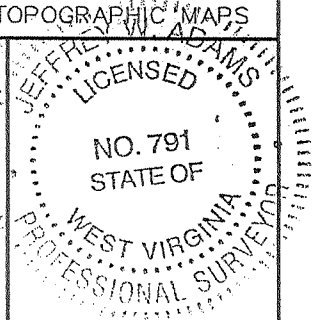


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 1,000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION B.M. top of knob  
Elev. = 1,430'

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 ENERGY.

(SIGNED) [Signature]  
 R.P.E. \_\_\_\_\_ L.L.S. 791



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE August 12, 2004  
 OPERATOR'S WELL NO. Shahan No. 2  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1,210' WATER SHED Big Run  
 DISTRICT McClellan COUNTY Doddridge  
 QUADRANGLE Salem 7 1/2'

SURFACE OWNER Randall & Melinda Holden ACREAGE 200.25 ac.  
 OIL & GAS ROYALTY OWNER H. J. Shahan LEASE ACREAGE 196 ac.

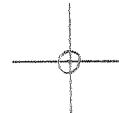
PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION X PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION Big Injun/Fifth ESTIMATED DEPTH 2,924'  
 WELL OPERATOR Petroleum Development Corp. DESIGNATED AGENT Alan Smith  
 ADDRESS P.O. Box 26 Bridgeport, WV 26330 ADDRESS P.O. Box 26 Bridgeport, WV 26330

COUNTY NAME Doddridge  
 PERMIT 2295F

LATITUDE 39° 22' 30"

LONGITUDE 90° 53' 08"



T'5 OGIS topo location

7.5' loc, 2.125  
0.71W

15' loc 5.005  
(calc.) 0.71W

Company \_\_\_\_\_

Farm \_\_\_\_\_

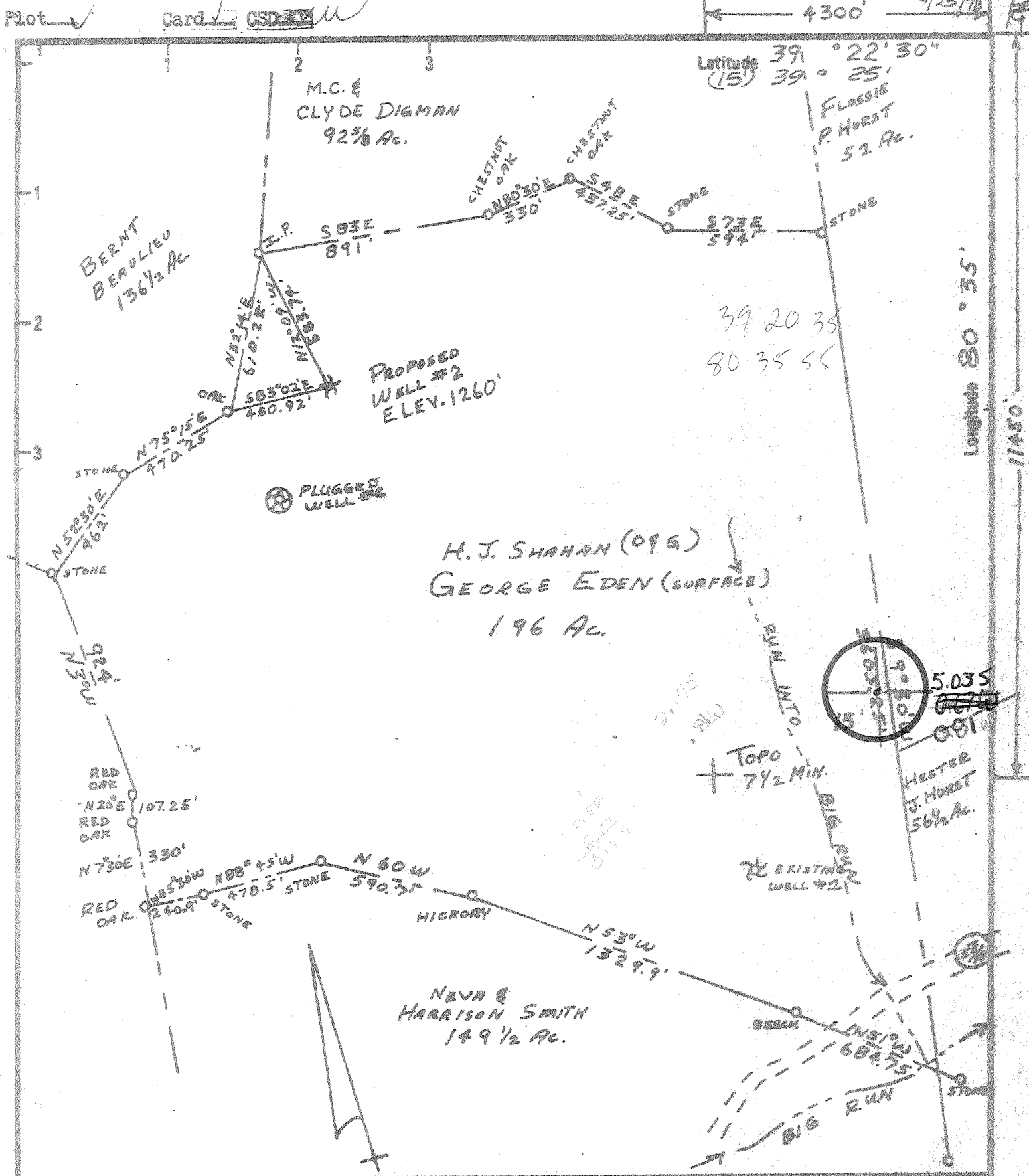
Quad SALEM Centerpoint C  
7/2

County DODDRIOSSE

District MCCLELLAN

WELL LOCATION MAP

File No. 017-2295



New Location    
 Drill Deeper    
 Abandonment

Minimum Error of Closure 1 IN. 200   
 Source of Elevation B.M. TOP OF KNOB 800' N.W. OF LOCATION   
B.M. ELEV. = 1260'   
 "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." *Paul G. Dean*

Company PETROLEUM DEVELOPMENT CORP.   
 Address 103 E. MAIN BRIDGEPORT W.VA.   
 Farm H. J. SHAHAN GEORGE EDEN   
 Tract 1 Acres 196 Lease No. \_\_\_\_\_   
 Well (Farm) No. #2 Serial No. \_\_\_\_\_   
 Elevation (Spirit Level) 1260'   
 Quadrangle SALEM, CENTERPOINT 15 C   
 County DODDRIDGE District MCCLELLAN   
 Engineer PAUL G. DEAN   
 Engineer's Registration No. 1856   
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_   
 Date 5/3/78 Scale 1" = 500'

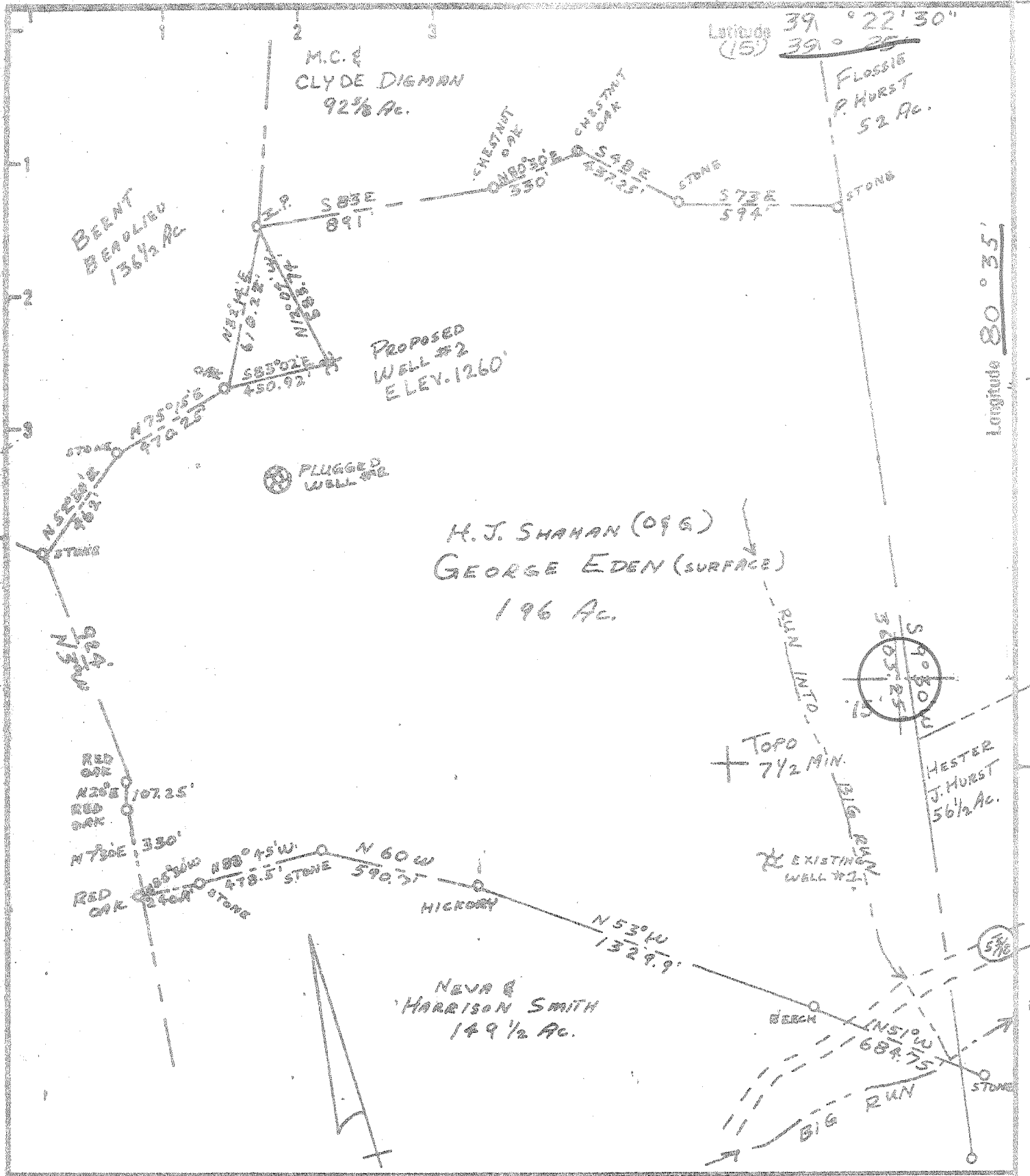
STATE OF WEST VIRGINIA   
 DEPARTMENT OF MINES   
 OIL AND GAS DIVISION   
 CHARLESTON

**WELL LOCATION MAP**   
 FILE NO. DODD-2295   
DRILLING CANCELED

+ 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.

**47-017**

5100' Binson   
 6-6 Smithton-Flint-Sedalia   
 (99)   
 FEB 22 1980



New Location   
 Drift Desper   
 Abandonment

Minimum Error of Closure 1 IN 200  
 Source of Elevation B.M. TOP OF KNGB 200' NW OF LOCATION  
B.M. ELEV. = 1430'  
 "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. *Paul G. Dean*

Company PETROLEUM DEVELOPMENT CORP  
 Address 103 E. MAIN BRIDGEPORT W. VA.  
 Farm H. J. SHAHAN GEORGE EDEN  
 Tract 1 Acres 196 Lease No. \_\_\_\_\_  
 Well (Farm) No. #2 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1260' C  
 Quadrangle SALEM, CENTERPOINT 15  
 County RODDRIDGE District MCCLELLAN  
 Engineer PAUL G. DEAN  
 Engineer's Registration No. 1256  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 5/3/78 Scale 1" = 500'

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

WELL LOCATION MAP  
 FILE NO. DODD-2295

+ 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.

47-017 OCT 30 1978

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: **Shahan** Operator Well No.: **2**

LOCATION: Elevation: **1210'** Quadrangle: **Salem**

District: **McClellan** County: **Doddridge**  
Latitude: **11350'** Feet South of **39** Deg. **22** Min. **30** Sec.  
Longitude **2800'** Feet West of **80** Deg. **35** Min. **00** Sec.

Company: **Petroleum Development Corporation**

|  | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|--|-----------------|------------------|--------------|------------------------|
| Address: <b>103 East Main Street</b>                 |                 |                  |              |                        |
| <b>Bridgeport, WV 26330</b>                          |                 |                  |              |                        |
| Agent: <b>Alan H. Smith</b>                          |                 |                  |              |                        |
| Inspector: <b>Mike Underwood</b>                     |                 |                  |              |                        |
| Date Permit Issued: <b>09/27/04</b>                  |                 |                  |              |                        |
| Date Well Work Commenced: <b>10/26/04</b>            |                 |                  |              |                        |
| Date Well Work Completed: <b>11/05/04</b>            |                 |                  |              |                        |
| Verbal Plugging:                                     |                 |                  |              |                        |
| Date Permission granted on:                          |                 |                  |              |                        |
| Rotary Cable <input checked="" type="checkbox"/> Rig |                 |                  |              |                        |
| Total Depth (feet): <b>5456'</b>                     |                 |                  |              |                        |
| Fresh Water Depth (ft.): <b>78'</b>                  |                 |                  |              |                        |
| Salt Water Depth (ft.): <b>none reported</b>         |                 |                  |              |                        |
| Is coal being mined in area (N/Y)? <b>N</b>          |                 |                  |              |                        |
| Coal Depths (ft.): <b>297'</b>                       |                 |                  |              |                        |

OPEN FLOW DATA

Producing formation **Big Injun** Pay zone depth (ft) **2161'-2204'**

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow **315** MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure **180** psig (surface pressure) after **2** Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

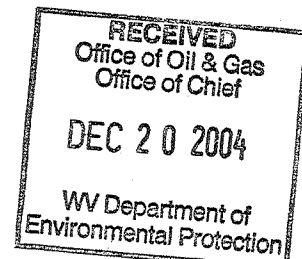
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLSBORE.

Signed: \_\_\_\_\_  
By: **Alan H. Smith**  
Date: **December 16, 2004**



0000 2295 F

DEC 30 2004

Shahan 2  
47-017-02295-F

Perforated the Big Injun using 0.39" shots; 6 at 2161'-2164', 6 at 2171'-2174', 12 at 2198'-2204'. Set gas control bridge plug at 2220'.

Start 91 bbls of Unigel 5F pad and pump 322 bbls of Unigel 5F treating fluid, 30000 lbs of 30/50 Ottawa sand. Start 500 gal 15% HCL and drop 14 perf balls. Break at 1500 psi. Start 88 bbls of Unigel 5F pad and pump 269 bbls of Unigel 5F treating fluid, 30000 lbs of 30/50 Ottawa sand, 22 bbls of flush. Stage sand at 1#, 2#, 3#, and 4# ppg. MTP-2240 psi, ATP-2094 psi, Air-18.4 bpm. Shut down, ISIP-1050 psi, 5 min. SIP-830 psi. Open to pit through 4 1/2" turn tube.

Flow clean.

Turn in line.



IV-35  
(Rev 8-81)

**RECEIVED**

AUG 16 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

State of West Virginia

Department of Mines  
Oil and Gas Division

Date \_\_\_\_\_  
Operator's  
Well No. TWO (2)  
Farm H.J. SHAHAN  
API No. 47 - 017 - 2295 REN

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 \_\_\_ /)

LOCATION: Elevation: 1210' Watershed BIG RUN  
District: McCLELLAND County DODDRIDGE Quadrangle SALEM

COMPANY PETROLEUM DEVELOPMENT CORPORATION  
ADDRESS P.O. BOX 26 BRIDGEPORT, WV 26330  
DESIGNATED AGENT SAME AS ABOVE  
ADDRESS SAME AS ABOVE  
SURFACE OWNER GEORGE EDEN  
ADDRESS 4628 BURNETTE AVE. SILVER SPRINGS, MD.  
MINERAL RIGHTS OWNER O.C. HAUGHT ET AL  
ADDRESS SALEM, WV 26426  
OIL AND GAS INSPECTOR FOR THIS WORK \_\_\_\_\_  
ADDRESS \_\_\_\_\_

PERMIT ISSUED \_\_\_\_\_  
DRILLING COMMENCED 07/31/81  
DRILLING COMPLETED 08/07/81  
IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON \_\_\_\_\_

| Casing<br>Tubing                    | Used in<br>Drilling | Left<br>in Well | Cement<br>fill up<br>Cu. ft. |
|-------------------------------------|---------------------|-----------------|------------------------------|
| Size<br>20-16<br>Cond.              |                     |                 |                              |
| <u>11 3/4"</u><br><del>13-16"</del> | 40                  | 40              | circulate                    |
| 9 5/8                               |                     |                 |                              |
| 8 5/8                               | 1845                | 1845            | circulate                    |
| 7                                   |                     |                 |                              |
| 5 1/2                               |                     |                 |                              |
| 4 1/2                               | 5455                | 5455            | 575 sks                      |
| 3                                   |                     |                 |                              |
| 2                                   |                     |                 |                              |
| Liners<br>used                      |                     |                 |                              |
| "                                   |                     |                 |                              |

GEOLOGICAL TARGET FORMATION BENSON Depth 5152 feet  
Depth of completed well 5456 feet Rotary x / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 78 feet; Salt \_\_\_\_\_ feet  
Coal seam depths: 297' Is coal being mined in the area? no

OPEN FLOW DATA  
Producing formation DEVONIAN-SHALE Pay zone depth 4662-5389 feet  
Gas: Initial open flow 94 Mcf/d Oil: Initial open flow 5152-5389? Bbl/d  
Final open flow ? Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure 1000 psig (surface measurement) after 24 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

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

CO<sub>2</sub> Emulsion      180 bbl                      32,000 lb                      20/40 sand  
30 Perforations      4662-5389

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'         |   |
| Soil                  |       |              | 10'      | 20'         |   |
| Shale, Red Rock       |       |              | 20'      | 100'        | H <sub>2</sub> O 1/2" stream @ 78'                                  |
| Red Rock              |       |              | 100'     | 115'        |   |
| Sand, Shale           |       |              | 115'     | 240'        |   |
| Sand, Shale, Red Rock |       |              | 240'     | 297'        |   |
| Coal                  |       |              | 297'     | 303'        |   |
| Sand, Shale, Red Rock |       |              | 303'     | 1250'       |   |
| Red Rock              |       |              | 1250'    | 1275'       |   |
| Sand, Shale           |       |              | 1275'    | 2092'       |   |
| Big Lime              |       |              | 2092'    | 2126'       |   |
| Big Injun             |       |              | 2126'    | 2242'       | Gas check @ 2203' 30/10 = 2" H <sub>2</sub> O                       |
| Pocono                |       |              | 2242'    | 2272'       |   |
| Sand, Shale           |       |              | 2272'    | 2396'       |   |
| Weir                  |       |              | 2396'    | 2473'       | Gas check @ 2410' 20/10 = 2" H <sub>2</sub> O                       |
| Sand, Shale           |       |              | 2473'    | 2620'       |   |
| Gantz                 |       |              | 2620'    | 2640'       |   |
| Sand, Shale           |       |              | 2640'    | 2696'       |   |
| 50 Ft.                |       |              | 2696'    | 2767'       |   |
| Sand, Shale           |       |              | 2767'    | 2813'       |   |
| Gordon Stray/Gordon   |       |              | 2813'    | 2966'       |   |
| Sand, Shale           |       |              | 2966'    | 3007'       |   |
| 4th                   |       |              | 3007'    | 3056'       |   |
| Sand, Shale           |       |              | 3056'    | 3162'       |   |
| 5th                   |       |              | 3162'    | 3231'       | Gas check @ 3200' 20/10 = 2" H <sub>2</sub> O                       |
| Sand, Shale           |       |              | 3231'    | 3484'       |   |
| Warren                |       |              | 3484'    | 3574'       |   |
| Sand, Shale           |       |              | 3574'    | 3685'       |   |
| Upper Speechley       |       |              | 3685'    | 3740'       |   |
| Sand, Shale           |       |              | 3740'    | 3832'       |   |
| Speechley             |       |              | 3832'    | 3896'       |   |
| Sand, Shale           |       |              | 3896'    | 3955'       |   |
| Balltown              |       |              | 3955'    | 4156'       |   |
| Sand, Shale           |       |              | 4156'    | 4554'       | Gas Check @ 4250' 20/10 = 2" H <sub>2</sub> O                       |
| Bradford              |       |              | 4554'    | 4688'       |   |
| Sand, Shale           |       |              | 4688'    | 4857'       |   |
| Riley                 |       |              | 4857'    | 4932'       |   |

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION, BRIDGEPORT, WV 26330

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 those encountered in the drilling of a well."



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

017-2295

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       |       |              | 4932'    | 5152'       |   |
| <del>Benson</del> |       |              | 5152'    | 5230'       |   |
| Sand, Shale       |       |              | 5230'    | 5456' TD    |   |

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION, BRIDGEPORT, WV 26330

Well Operator

By: \_\_\_\_\_

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."



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

FEB 25 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 February 24, 1981

Surface Owner George Eden

Company Petroleum Development Corporation

Address 4628 Burnett Ave, Silver Spring MD 20910

Address P.O. Box 26 Bridgeport, WV 26330

Mineral Owner (H.J. Shahan Well #2)  
O.C. Haught, et. al.

Farm H. J. Shahan Acres 196

Address Salem, WV 26426

Location (waters) Big Run

Coal Owner Consolidation Coal Company

Well No. TWO Elevation 1210'

Address P.O. Box 1613 Morgantown, WV 26505

District McClellan County Doddridge

Coal Operator \_\_\_\_\_

Quadrangle Salem

Address \_\_\_\_\_

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 renewed. This permit shall expire if operations have not commenced by 11-2-81.

INSPECTOR

TO BE NOTIFIED Paul Garrett

ADDRESS 321 Beech Street Clarksburg, WV 26301

PHONE 622-3871

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 May 23 1978 by Clarence W. Mutschelknaus made to Petroleum Development Corp. and recorded on the 3 day of November 1978 in Doddridge County, Book 105 Page 344

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,

(Sign Name) John W. Mutschelknaus

Well Operator  
PETROLEUM DEVELOPMENT CORPORATION  
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 BURN

47-017-2295-REN. PERMIT NUMBER

"I have read and understand the examination requirements as set forth in Chapter 22, Article 4, Section 12(b) and will carry out the specified requirements."

Signed by \_\_\_\_\_





STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED  
SEP 25 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 September 22, 1978

Surface Owner George Eden  
Address 4628 Burnett Ave Silver Spring MD

Company Petroleum Development Corporation

Address P. O. Box 26 Bridgeport, WV 26330

Mineral Owner O. C. Haught etal  
Address Salem WV

Farm H. J. Shahan Acres 196

Location (waters) Big Run

Coal Owner Consolidation Coal Co.  
Address Morgantown WV

Well No. Two Elevation 1260'

District McClellan County Doddridge

Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

Quadrangle Salem

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

INSPECTOR

for drilling. This permit shall expire if TO BE NOTIFIED Paul Garrett

operations have not commenced by 2-10-79

ADDRESS Clarksburg, West Virginia 26301

Robert H. Todd  
Deputy Director - Oil & Gas Division

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 May 23rd 1977 by O. C. Haught etal made to Clarence N. Mutchelknaus and recorded on the 18th day of May 1978, in Doddridge County, Book 103 Page 766

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,  
PETROLEUM DEVELOPMENT CORPORATION  
(Sign Name) \_\_\_\_\_  
Well Operator

Address \_\_\_\_\_  
of \_\_\_\_\_  
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

DODD- 2295 \_\_\_\_\_ 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 842-6265 \_\_\_\_\_  
 ESTIMATED DEPTH OF COMPLETED WELL: 5100' \_\_\_\_\_ 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                | 800'              | 800'         | Surface                             |
| 7                      |                   |              |                                     |
| 5 1/2                  |                   |              |                                     |
| 4 1/2                  |                   | 4900'        | -----                               |
| 3                      |                   |              | Perf. Top                           |
| 2                      |                   |              | Perf. Bottom                        |
| Liners                 |                   |              | Perf. Top                           |
|                        |                   |              | Perf. Bottom                        |

APPROXIMATE FRESH WATER DEPTHS 40' FEET 100' SALT WATER \_\_\_\_\_ FEET  
 APPROXIMATE COAL DEPTHS 350' \_\_\_\_\_  
 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