

Plot  Card  CSD

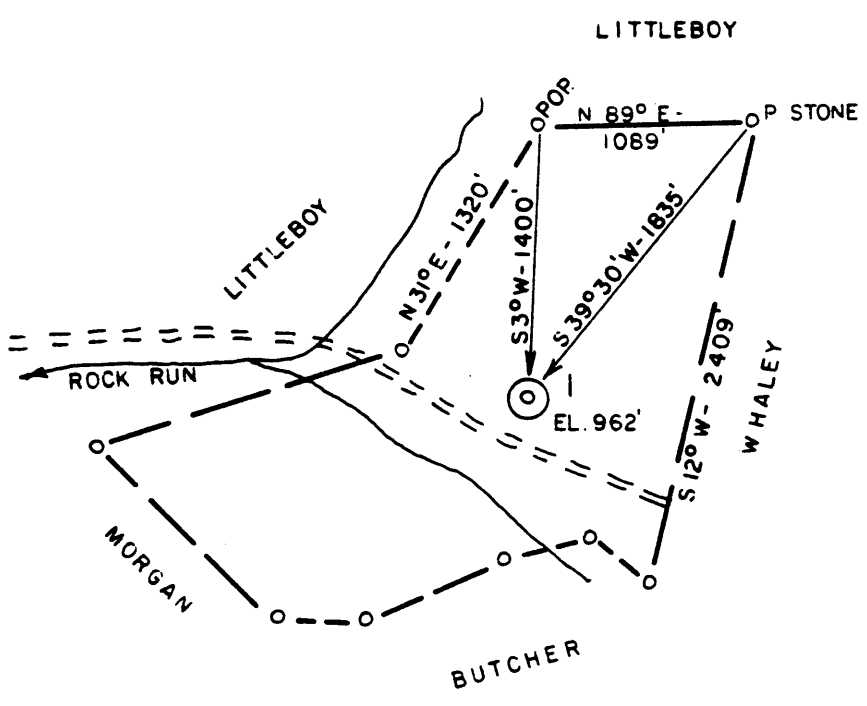
LATITUDE 39° 20' 00" 1420' W

0.145  
256w

39 19 50  
81 02 55

LONGITUDE 81° 02' 30"

NORTH



FILE NO. 81-232  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1/200'  
 PROVEN SOURCE OF ELEVATION NOB SOUTH (1089')

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) Chet Waterman  
 R.P.E. 3788 L.L.S. \_\_\_\_\_

PLACE SEAL HERE

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



DATE 5/11, 1981  
 OPERATOR'S WELL NO. 1  
 API WELL NO. 47-073-1217  
 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 962' WATER SHED ROCK RUN  
 DISTRICT LAFAYETTE COUNTY PLEASANTS  
 QUADRANGLE ELLENBORO 7.5' St. Marys 15' SE  
 SURFACE OWNER R. LAMOTHE ACREAGE 120  
 OIL & GAS ROYALTY OWNER J. R. MORRISON LEASE ACREAGE 120  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  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 SHALE ESTIMATED DEPTH 5200'  
 WELL OPERATOR SHAFER OIL & GAS DESIGNATED AGENT IRA W. SHAFER  
 ADDRESS ST. MARYS WV ADDRESS 214 CLAY STREET ST. MARYS, WV



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division  
WELL RECORD

Quadrangle Ellenboro  
Permit No. 42-023-1217

Rotary  Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas \_\_\_\_\_  
Recycling \_\_\_\_\_ Comb.   
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Company Shafer Oil & Gas Inc.  
Address P.O. Box 154 St. Marys  
Farm Morrison Acres 120  
Location (waters) Rock Run  
Well No. #1 Elev. 943  
District Lafayette County Pleasants  
The surface of tract is owned in fee by R. L. Lamothe  
Address Annapolis, Md.  
Mineral rights are owned by JR Morrison  
Heirs Address Hebron, W. Va.  
Drilling Commenced 6-9-81  
Drilling Completed 6-13-81  
Initial open flow 50 M cu. ft. 0 bbls.  
Final production 250 M cu. ft. per day 0 bbls.  
Well open 10 hrs. before test 1000 RP.

Wd. Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"			
9 5/8			
8 5/8	921	921	300 cu. ft.
7			
5 1/2			
4 1/2	4845	4845	600 cu. ft.
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Cement Data: 500 Sks Pozmix 50-50  
46 Bbl. SALT Spearhead

Frac Data: 75 Quality Foam Frac (Dowell)  
3-Stage 2000 bbls - Foam Total  
220,000 # Sand - 1.6 M MCF N<sub>2</sub>

Coal was encountered at None Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water 150 Feet \_\_\_\_\_ Salt Water 1200 Feet \_\_\_\_\_  
Producing Sand Gordon - Benson - Shale Depth 9897

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sandstone		Hard	0	80		
Shale		Soft	80	110		
Sand & shale		Soft.	110	600		
Red rock		Soft	600	640		
Sand & shale		Soft	640	1000		
Salt Sand		soft	1200	1450		SALT water
Sand & shale		Soft.	1450	1570		
Maxon sand		Hard	1570	1630		
<del>Injun</del> Shale		Soft	1630	1900		
Injun Sand		Soft.	1900	2010		Gas & oil
Shale		Soft.	2010	2500		
Berea		Hard	2500	2510		
Shale		Soft.	2510	2620		

RECORDED

AUG 14 1981

OIL & GAS DIVISION  
DEPT. OF MINES

SALT water

Gas & oil

AUG 31 1981

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Thirty-foot		Soft	26 20	26 35	Gas	
Shale		Soft.	26 35	27 90		
Gordon		Soft.	27 90	28 05		
Shale		Soft.	28 05	45 28	Gas & Oil	
Riley		Soft	45 28	45 50	Gas	
Shale		Soft	45 50	47 80		
Benson		Soft.	47 80	47 98	Gas	
Shale			47 98	48 43	Hydro	

4843  
2510  
2333

Date

8/13

19 21

APPROVED

*[Signature]*

Owner

D. T. Consultant

FILE COPY  
**RECEIVED**  
FEB 24 1986



1) Date: February 17, 1986  
2) Operator's Well No. J. Collums #1  
3) API Well No. 47 107 -1217-Frac  
State County Permit

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

- 4) WELL TYPE: A Oil  / Gas   
B (If "Gas", Production  / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow \_\_\_\_\_)
- 5) LOCATION: Elevation: 610' Watershed: Kanawha River  
District: Clay County: Wood Quadrangle: Kanawha
- 6) WELL OPERATOR: Clay Resources, Inc. CODE: 10025 7) DESIGNATED AGENT: Andy Brown  
Address: 204 Union Square Address: Box 32  
Marietta, OH 45750 Reader, WV 26167
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED: Name: Glen Robinson Address: Route #1, #6 Mt. Pleasant Estate Mineral Wells, WV 26150
- 9) DRILLING CONTRACTOR: Name: Unknown Address: \_\_\_\_\_
- 10) PROPOSED WELL WORK: Drill \_\_\_\_\_ / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate  / Plug off old formation \_\_\_\_\_ / Perforate new formation  / Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION: Berea & Gordon 419
- 12) Estimated depth of completed well, 2650' feet
- 13) Approximate strata depths: Fresh, \_\_\_\_\_ feet; salt, 1530' feet.
- 14) Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area? Yes \_\_\_\_\_ / No

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	8 5/8					240'	240'	CTS - 300 SKS	
Coal									Sizes
Intermediate									
Production	4 1/2					3919'	3919'	220 SKS	Depths set
Tubing									
Linings									Perforations:
									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-107-1217-F Date May 5 1986

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 May 5, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: ✓	Agent: GAO	Plat: H.S.	Casing: BS	Fee: 1797	WPCP: MR	S&E: AB	Other:
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NOTE: Keep one copy of this permit posted at the drilling location.

John W. Johnston by Margaret J. Hilde  
Director, Division of Oil and Gas File



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

**RECEIVED**  
JUN - 5 1981

**Oil and Gas Division**  
**OIL AND GAS WELL PERMIT APPLICATION**

OIL & GAS DIVISION  
DEPT. OF MINES

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

DATE June 3, 1981

Surface Owner Robert Lamothe  
Address General Highway-Annapolis, Md.  
Mineral Owner J.R. Morrison & Heirs  
Address Rt. #1-Hebron, W.Va.  
Coal Owner None  
Address \_\_\_\_\_  
Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

Company Shafer Oil & Gas Corp.  
Address 214 Clay Street  
Farm Morrison Acres 120 +-  
Location (waters) Rock Run  
Well No. 1 Elevation 943'  
District LaFayette County Pleasants  
Quadrangle Ellenboro

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 2-5-82.

*[Signature]*  
Deputy Director - Oil & Gas Division

INSPECTOR Phil Tracy  
TO BE NOTIFIED \_\_\_\_\_  
ADDRESS Alma, W.VA.  
PHONE 758-4573

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 3rd 1979 by J. R. Morrison Heirs made to Shafer Oil & Gas Corp and recorded on the 4th day of June 1979 in Pleasants County, Book 152 Page 289

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) Ira W. Shafer  
Well Operator  
Ira Shafer-President

Address \_\_\_\_\_ Street \_\_\_\_\_  
of \_\_\_\_\_  
Well Operator 214 Clay St St Marys, W.Va.  
City or Town \_\_\_\_\_  
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**

47-073-1217

PERMIT NUMBER

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

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

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

PROPOSED WORK ORDER TO  DRILL  DEEPEN  FRACTURE-STIMULATE  
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:  
 NAME FWA Drilling Col NAME Ira Shaffer  
 ADDRESS Elkview, W.Va. ADDRESS 214 Clay St. St. Marys, W.Va.  
 TELEPHONE 965-3379 (304) TELEPHONE 304-684-7566  
 ESTIMATED DEPTH OF COMPLETED WELL: 5000' ROTARY  CABLE TOOLS   
 PROPOSED GEOLOGICAL FORMATION: Devonian (Upper & Middle)  
 TYPE OF WELL: OIL  GAS  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 <del>13"</del> <b>13"</b>	<b>20'</b>	<b>20'</b>	<b>None</b>
9 - 5/8			
8 - 5/8 <b>900'</b>	<b>900'</b>	<b>900'</b>	<b>To Surface</b>
7			
5 1/2			
4 1/2 <b>5000'</b>	<b>None</b>	<b>5000'</b>	<b>500sks. Pozmir 50-50</b>
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 150 FEET ~~8000s~~ SALT WATER 1000 FEET  
 APPROXIMATE COAL DEPTHS None  
 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.

\_\_\_\_\_  
Coal Company

Official Title