





FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 200'  
 MINIMUM DEGREE OF ACCURACY 1:5000  
 PROVEN SOURCE OF ELEVATION USGS No. G-134 on East End of North RR. Abut Elev 620.27

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) Bernard Tice  
 R.P.E. \_\_\_\_\_ L.L.S. 369

PLACE SEAL HERE

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



DATE July 12, 19 80  
 OPERATOR'S WELL NO. 2  
 API WELL NO. 47-073-0918  
 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 618.8 WATER SHED MIDDLE ISLAND CREEK  
 DISTRICT WASHINGTON COUNTY PLEASANTS  
 QUADRANGLE RAVEN ROCK - OHIO - W. VA. ST MARY IS' WC  
 SURFACE OWNER BERNARD O. TICE ACREAGE 8.24  
 OIL & GAS ROYALTY OWNER BERNARD O. TICE LEASE ACREAGE 8.24  
 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 OHIO SHALE ESTIMATED DEPTH 3900' 4000  
 WELL OPERATOR BERNARD TICE DESIGNATED AGENT BERNARD TICE  
 ADDRESS 110 1/2 WASHINGTON ST. ST. MARYS, W. VA. 26170 ADDRESS 110 1/2 WASHINGTON ST. ST. MARYS, W. VA. 26170

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: TICE, BERNARD Operator Well No.: TICE 3

LOCATION: Elevation: 618.80 Quadrangle: RAVEN ROCK

District: WASHINGTON County: PLEASANTS  
Latitude: 6020 Feet South of 39 Deg. 25Min. 0 Sec.  
Longitude 5120 Feet West of 81 Deg. 10 Min. 0 Sec.

Company: ECOLOGICAL ENERGY, INC.  
P. O. BOX 730  
ST. MARYS, WV 26170-0000

Agent: BERNARD TICE

Inspector: SAM HERSMAN  
Permit Issued: 01/27/97  
Well work Commenced: 2/20/97  
Well work Completed: 3/5/97  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary \_\_\_\_\_ Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) \_\_\_\_\_  
Fresh water depths (ft) \_\_\_\_\_  
Salt water depths (ft) \_\_\_\_\_  
Is coal being mined in area (Y/N)? \_\_\_\_\_  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	266'	266'	150 SKS.
4 1/2"		3556'	426 SKS.

EXISTING

OPEN FLOW DATA

Producing formation Pocono Pay zone depth (ft) 1470  
Gas: Initial open flow 0 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 30 MCF/d Final open flow 10 Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 610 psig (surface pressure) after 48 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 WELLBORE.

RECEIVED  
WV Division of  
Environmental Protection

MAR 19 1997

Permitting  
Office of Oil & Gas

For: ECOLOGICAL ENERGY, INC.

By: A. J. Substina Consultant

Date: 3/18/97

OVER----->

MAR 24 1997

Temporary Bridge Plug: 4 1/2" Solid Bridge Plug set at 1610'

Squeeze Cement: 100 SKS. Reg. neat Cement, top of Cmt. 1148'

Perforated Interval: (1475'-1483') 12 holes, 0.41"

Fracturing Treatment: 500 Gals. 7 1/2% HCL. acid, 325 BBls. gelled water,  
breakdown press: 2100#, avg. rate: 12.2 BPM, avg.  
press.: 1960#, ISIP: 1635.

See original IV-35 State Report for additional formation information  
and well data.

**RECEIVED**  
WV Division of  
Environmental Protection

**MAR 19 1997**

Permitting  
Office of Oil & Gas

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

Date October 9, 1980

FORM IV-35  
(Obverse)

Operator's  
Well No. Tice No. 3  
API Well No. 47 - 073 - 091  
State County Per:  
0-918

[08-78]

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil X / Gas X / Liquid Injection      / Waste Disposal       
(If "Gas", Production X / Underground storage      / Deep      / Shallow     )  
LOCATION: Elevation: 618.8 Watershed: Middle Island Creek  
District: Washington County: Pleasants Quadrangle: Raven Rock

WELL OPERATOR L & B Oil Company, Inc. DESIGNATED AGENT Loren E. Bagley  
Address 108 Washington Street Address 108 Washington Street  
St. Marys, WV 26170 St. Marys, WV 26170

PERMITTED WORK: Drill X / Convert      / Drill deeper      / Redrill      / Fracture or stimulate       
Plug off old formation      / Perforate new formation       
Other physical change in well (specify)     

PERMIT ISSUED ON August 5, 1980 OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Philip Tracy  
Address Alma  
West Virginia 26320

GEOLOGICAL TARGET FORMATION: Brown Shale Depth 3494 feet  
Depth of completed well, 3560 feet Rotary      / Cable Tools       
Water strata depth: Fresh, 85 feet; salt,      feet.  
Coal seam depths:      Is coal being mined in the area? No  
Work was commenced August 5, 1980, and completed August 12, 1980

CASING AND TUBING PROGRAM

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
Conductor	8 5/8		20	X		266	266	150 SK	Kinds
Fresh water									
Coal									Sizes
Intermediate									
Production									Depth set
Tubing									
Liners									Perforations: 26
Casing	4 1/2		9.5	X		3556	3556	426 SK	3262 to 3494 Bottom

OPEN FLOW DATA

Producing formation Brown Shale Pay zone depth      feet  
Gas: Initial open flow, 0 Mcf/d Oil: Initial open flow, 0 Bbl/d  
Final open flow, 30 Mcf/d Final open flow, 0 Bbl/d  
Time of open flow between initial and final tests, 24 hours  
Static rock pressure, 400 psig (surface measurement) after 24 hours shut in

NOV 19 1980

POHM IV-35  
(Reverse)

[08-78]

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 gas and salt water, coal, oil and
Clay			0	20	
Red Rock and Sand			20	659	
Red Rock			659	704	
Shale			704	800	
Sandy Shale			800	830	
Shale			830	860	
Sandy Shale			860	885	
Sand			885	900	
Shale			900	925	
Sand			925	250	
Shale and Sand			950	975	
Shale			975	1000	
Sand			1000	1025	
Shale and Sand			1025	1050	
Shale			1050	1075	
Shale and Sand			1075	1100	
Shale			1100	1125	
Salt Sand			1125	1159	
Shale			1159	1179	
Greenbrier			1179	1329	
Shale and Sand			1329	1349	
Big Injun			1349	1415	
Shale and Sand			1415	1420	
Squaw			1420	1549	
Shale and Sand			1549	1579	
Gas and Sand			1579	1732	
Shale			1732	1742	
Berea			1742	1802	
Shale and Sand			1802	1810	
Gantz			1810	1913	
Shale and Sand			1913	1925	
Thirty Foot			1925	2017	
Shale and Sand			2017	2037	
Gordon			2037	2200	
Shale and Sand			2200	2210	
Fourth Sand			2210	2295	
Shale and Sand			2295	2308	
			2308	2357	

(Attach separate sheets to complete as necessary)

CONTINUATION

I. & B. Oil Company, Inc.  
Well Operator  
By Louise Boyley  
Its President

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."

FORM 07-35  
(Reverse)

[08-78]

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

Twenty six perforations between 3269 and 3492. Treated with Nitrogen Frac, 820,000 SCF. Breakdown 2800#. Treated at 2400#.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Fifth Sand			2357	2364	
Shale			2364	2500	
Bayard			2500	2510	
Shale			2510	2558	
Warren Second			2558	2562	
Shale			2562	2985	
Benson			2985	3010	
<u>Brown Shale</u>			3010	3494	

LOG TO 3605

(Attach separate sheets to complete as necessary)

I. & B Oil Company, Inc.  
Well Operator  
By James E. Bayley  
Its President

NOTE: Regulation 2.02(t) 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."

NOV 19 1981



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

AUG - 5 1980

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 August 4, 1980

Surface Owner Bernard O. Tice

Company L & B Oil Co., Inc.

Address 110 1/2 Washington St., St. Marys

Address RD #1, Middlebourne, W.Va. 26149

Mineral Owner Bernard O. Tice

Farm \_\_\_\_\_ Acres 8.24

Address 110 1/2 Washington St., St. Marys

Location (waters) Middle Island Creek

Coal Owner \_\_\_\_\_

Well No. Tice #3 Elevation 618.8

Address \_\_\_\_\_

District Washington County Pleasants

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

Quadrangle Raven Rock-Ohio-WVa

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. This permit shall expire if operations have not commenced by 4-5-81.

INSPECTOR  
TO BE NOTIFIED Philip Tracy

ADDRESS Dodd St., Middlebourne

PHONE 758-4573

Fred R. Ruppel  
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 August 4, 1980 by Bernard O. Tice made to L & B Oil Co., Inc. and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in \_\_\_\_\_ County, Book \_\_\_\_\_ Page \_\_\_\_\_  
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) Loren Bagley  
Well Operator, President

Address RD #1, Middlebourne, WV 26149  
of \_\_\_\_\_  
Well Operator \_\_\_\_\_  
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

47-073-0918

PERMIT NUMBER

*James*



**STATE OF WEST VIRGINIA**  
**DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**WELL WORK PERMIT APPLICATION**

23010

Well Operator: Ecological Energy, Inc. <sup>5645</sup> 15240 (4) 569

Operator's Well Number: Tice #3 3) Elevation: 619'

Well type: (a) Oil\_\_\_/ or Gas X/ Issued 01/27/97  
 (b) If Gas: Production\_\_\_/ Underground Storage\_\_\_/ Expires 01/27/99  
 Deep\_\_\_/ Shallow X/

Proposed Target Formation(s): Pocono 371

6) Proposed Total Depth: 1,470' feet

7) Approximate fresh water strata depths: \_\_\_\_\_

8) Approximate salt water depths: \_\_\_\_\_

9) Approximate coal seam depths: \_\_\_\_\_

10) Does land contain coal seams tributary to active mine? Yes\_\_\_/ No\_\_\_/  
 Set Temp. plug, frac Pocono sand, Remove plug, Communicate

11) Proposed Well Work: with original production

12) \_\_\_\_\_

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 WV Division of  
 Environmental Protection  
**DEC 18 1996**  
 Permitting  
 Office of Oil & Gas

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water						
Coal						
Intermediate	8 5/8"		20#	266'	266'	150 sks
Production	4 1/2"		9.5#		3,556'	426 sks
Tubing						
Liners						

*Johnston*  
*from Well Records*

PACKERS : Kind Existing in Well  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Office of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond Blanket  Agent  
 (Type)

1842

RECEIVED  
Environmental Protection  
DEC 10 1996

- 1) Date: 11/4/96
- 2) Operator's well number \_\_\_\_\_
- 3) Tica #3  
API Well No: 47 - 72 - 918 - F  
State County Permit

Permitting  
Office of Oil and Gas  
**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS**

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

- 4) Surface Owner(s) to be served: Mr. Larry Webb  
RT-39  
St. Marys, WV 26170
- 5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Sam Hersman (c) Coal Lessee with Declaration  
Address Rte. 1, Box 248 Name N/A  
Harrieville, WV 26362 Address \_\_\_\_\_  
Telephone (304)-628 3185

**TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:**

Included is the lease or leases or other continuing contract or contracts by which I hold the

P 403 014 201

US Postal Service  
**Receipt for Certified Mail**  
No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to	<u>MR. LARRY WEBB</u>
Street & Number	<u>Rte 39</u>
Post Office, State, & ZIP Code	<u>ST. MARYS, WV 26170</u>
Postage	<u>\$ 32</u>
Certified Fee	<u>1.10</u>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<u>1.10</u>
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	<u>2.52</u>
Postmark or Date	

PS Form 3800, April 1995

quired by Chapter 22, Article 6, Section 8(d) of the Code of West

er Chapter 22 of the West Virginia Code I have served copies of  
on plat, and accompanying documents pages 1 through \_\_\_ on

- (avit attached)
- (rked postal receipt attached)
- (ublication attached)

Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and  
er this application.

w that I have personally examined and am familiar with the  
ation form and all attachments, and that based on my inquiry of  
nsible for obtaining the information, I believe that the information

gnificant penalties for submitting false information, including the

Well Operator Ecological Energy, Inc.  
David E. Lorfercamp  
President  
Address Box 983  
Morgantown, WV 26507  
Telephone 1-800-846-7587  
s 19 day of Nov, 19 96

My commission expires Dec 4, 1996 Notary Public