



Surface is owned by:-  
 E. E. Wolfe.  
 P.O. Box 124, Glenville, W. Va.  
 Coal is owned by:  
 G. L. Wolfe, et al  
 P.O. Box 124, Glenville, W. Va.

Minimum Error of Closure 1 in 200  
 Source of Elevation USGS elev at forks of road. 2500' SW = 788

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

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.

Signed: \_\_\_\_\_  
 Map No. \_\_\_\_\_ Squares: N S E W

Company EASTERN AMERICAN ENERGY CORP  
dba Pacific States Gas and Oil Inc.  
 Address PO Box 67, Glenville, West Va.  
 Farm Mary E. Snyder  
 Tract \_\_\_\_\_ Acres 105 Lease No. \_\_\_\_\_  
 Well (Farm) No. E.A. No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1014  
 Quadrangle Glenville 7 1/2 15 NE  
 County Gilmer District Glenville  
 Engineer W. S. Hoover  
 Engineer's Registration No. 1222 LL 200  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date March 2, 1978 Scale 1" = 500'

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

**WELL LOCATION MAP**  
 FILE NO. GIL-2995

+ Denotes location of well on United States Topographic Maps, scale 1 to 25,000 latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing. 47-021 APR 10 1978

6250' distance of Well 66 Glenville N. (182)

[08-78]

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

WELL TYPE: Oil \_\_\_ / Gas XX / Liquid Injection \_\_\_ / Waste Disposal \_\_\_  
(If "Gas", Production XX / Underground storage \_\_\_ / Deep XX / Shallow \_\_\_ /)  
Elevation: 1014' Watershed: Gluck Run  
District: Glenville County: Gilmer Quadrangle: Glenville

WELL OPERATOR Eastern American Energy Corporation DESIGNATED AGENT James C. Recht  
Address P.O. Box N Address P.O. Box N  
Glenville, West Virginia 26351 Glenville, West Virginia  
26351

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

PERMIT ISSUED ON March 13, 1978

OIL & GAS INSPECTOR FOR THIS WORK:  
Name Paul Goodnight  
Address Smithville  
West Virginia 26178

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED

GEOLOGICAL TARGET FORMATION: Marcellus Shale Depth 6500 feet

Depth of completed well, 6565 feet Rotary X / Cable Tools \_\_\_

Water strata depth: Fresh, 170 feet; salt, \_\_\_ feet.

Coal seam depths: 350-355 Is coal being mined in the area? NO

Work was commenced October 27, 1978, and completed November 9, 1978

LOGGING AND TUBING PROGRAM

| LOGGING OR TUBING TYPE | SPECIFICATIONS |               |               |     | FOOTAGE INTERVALS |              | CEMENT FILL-UP OR SACKS (Cubic feet) | PACKERS         |
|------------------------|----------------|---------------|---------------|-----|-------------------|--------------|--------------------------------------|-----------------|
|                        | Size           | Grade         | Weight per ft | New | Used              | For drilling |                                      |                 |
| Conductor              |                |               |               |     |                   |              |                                      | Kinds           |
| Fresh water            | 8 5/8          | H-40          | 20 lb         | X   |                   | 450          | 450'                                 | 150SKS          |
| Coal                   |                |               |               |     |                   |              |                                      | Sizes           |
| Intermediate           |                |               |               |     |                   |              |                                      |                 |
| Production             | 4 1/2          | N-80<br>CW-55 | 11.6<br>10.5  | X   | 2081'<br>4473'    |              | 6553'                                | 600 SKS         |
| Tubing                 | 2 3/8          | K55           | 2.75          | X   |                   |              | 6287                                 |                 |
| Packers                |                |               |               |     |                   |              |                                      | Perforations:   |
|                        |                |               |               |     |                   |              |                                      | Top Bottom      |
|                        |                |               |               |     |                   |              |                                      | 6316'-----6426' |

OPEN FLOW DATA

Producing formation Marcellus Shale Pay zone depth 6298-6434 feet  
Gas: Initial open flow, 122 Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, 1200 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 4 hours  
Static rock pressure, 2300 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 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.

PERF: 1st Stage: 12-0.39 Diameter Holes @ 6386,6390,6394,6400,6404,6408,6411,6414,6416,6419,6422,6426.  
 2nd Stage: 8-0.49 Diameter Holes @ 6316,6320,6323,6326,6332,6334,6342,6346.  
 FRAC: 1st Stage: 300 BBLS H<sub>2</sub>O, 20,000lbs. 80/100 Sand, 30,000lbs. 20/40 Sand, 108 Gals Super Foam<sup>2</sup>, 2500 lbs. M-38-W gel.  
 2nd Stage: 300 BBLS H<sub>2</sub>O 20,000lbs. 80/100 Sand, 30,000 lbs. 20/40 Sand, 108 Gals. Super Foam<sup>2</sup>, 2500 lbs. M-38-W. gel.

WELL LOG

| FORMATION          | Color | Hard or Soft | ft       |             | Remarks<br>Including indication of all fresh and salt water, coal, oil and gas |
|--------------------|-------|--------------|----------|-------------|--|
|                    |       |              | Top Feet | Bottom Feet |  |
| Sand & Shale       |       |              | 0        | 52          |  |
| Sand               |       |              | 52       | 73          |  |
| Red Rock           |       |              | 73       | 82          |  |
| Sand               |       |              | 82       | 111         |  |
| Red Rock & Shale   |       |              | 111      | 132         |  |
| Sand               |       |              | 132      | 169         |  |
| Red Rock & Shale   |       |              | 169      | 178         |  |
| Sand & Shale       |       |              | 178      | 294         |  |
| Red Rock           |       |              | 294      | 307         |  |
| Sand & Shale       |       |              | 307      | 327         |  |
| Sand               |       |              | 327      | 344         |  |
| Sand & Shale       |       |              | 344      | 350         |  |
| Coal               |       |              | 350      | 355         |  |
| Sand               |       |              | 355      | 379         |  |
| Sand & Shale       |       |              | 379      | 748         |  |
| Sand               |       |              | 748      | 765         |  |
| Sand & Shale       |       |              | 765      | 865         |  |
| Shale and Red Rock |       |              | 865      | 896         |  |
| Sand               |       |              | 896      | 960         |  |
| Sand & Shale       |       |              | 960      | 1204        |  |
| Sand               |       |              | 1204     | 1311        |  |
| Sand & Shale       |       |              | 1311     | 1572        | Top E Log @ 1550'  |
| Little Lime        |       |              | 1572     | 1598        |  |
| Blue Monday        |       |              | 1598     | 1616        |  |
| Big Lime           |       |              | 1616     | 1718        |  |
| Big Injun          |       |              | 1718     | 1762        |  |
| Shale              |       |              | 1762     | 1818        |  |
| Weir               |       |              | 1818     | 1969        |  |
| Shale              |       |              | 1969     | 4520        |  |
| Benson             |       |              | 4520     | 4542        |  |
| Shale              |       |              | 4542     | 4708        |  |
| Elk                |       |              | 4708     | 5131        |  |
| Shale              |       |              | 5131     | 6355        |  |
| Tully Lime         |       |              | 6355     | 6383        |  |
| Marcellus Shale    |       |              | 6383     | 6434        |  |
| Chert              |       |              | 6434     | 6634        |  |
| TD                 |       |              | 6634     |             |  |

(Attach separate sheets to complete as necessary)

Eastern American Energy Corporation  
Well Operator

By John Mork

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."



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

RECEIVED  
APR - 3 1978  
OIL & GAS DIVISION  
DEPT. OF MINES

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

DATE March 13, 1978

Surface Owner Edward E. and G.L. Wolfe

Company Eastern American Energy Corp. dba Pacific States Gas & Oil, Inc.

Address P.O. Box 124, Glenville, WV

Address P.O. Box 67, Glenville, WV

Mineral Owner Mary E. Snyder et al

Farm Mary E. Snyder Acres 105

Address Gilmer County, WV

Location (waters) Gluck Run

Coal Owner G.L. Wolfe, et al

Well No. E.A. 1 Elevation 1014

Address Gilmer County, WV

District Glenville County Gilmer

Coal Operator None

Quadrangle Glenville 7 1/2

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 8-14-78

INSPECTOR

TO BE NOTIFIED Paul Goodnight

ADDRESS Smithville, WV 26178

PHONE 477-3660

*[Signature]*  
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 6 1925 by Mary E. Snyder and G.N. Snyder <sup>made to</sup> Pitts. & WV Gas Company and recorded on the 2nd day of September 1925 in Gilmer County, Book 108 Page 171

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:

Very truly yours,

(Sign Name) *[Signature]*  
Well Operator

W. VA. OIL & GAS CONSERVATION COMMISSION  
1613 WASHINGTON STREET, EAST  
CHARLESTON, WEST VIRGINIA 25311

Address of Well Operator

P.O. Box 67  
Street  
Glenville,  
City or Town  
West Virginia  
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

GIL-2995 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."

47-021

Signed by *[Signature]*

*[Handwritten mark]*

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

PROPOSED WORK ORDER TO X DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:  
 NAME S.W. Jack Drilling Co. NAME John Mork  
 ADDRESS Buckhannon, WV 26201 ADDRESS P.O. Box 67, Glenville, WV  
 TELEPHONE 462-2161 TELEPHONE 462-8118  
 ESTIMATED DEPTH OF COMPLETED WELL: 6250 ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Marcellus  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS X 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                |                   |              |                                     |
| 9 - 5/8                |                   |              |                                     |
| 8 - 5/8                | 400               | 400          | Surface                             |
| 7                      |                   |              |                                     |
| 5 1/2                  |                   |              |                                     |
| 4 1/2                  | 6500              | 6500         | 250 sks                             |
| 3                      |                   |              | Perf. Top                           |
| 2                      |                   |              | Perf. Bottom                        |
| Liners                 |                   |              | Perf. Top                           |
|                        |                   |              | Perf. Bottom                        |

APPROXIMATE FRESH WATER DEPTHS 50 FEET SALT WATER None FEET  
 APPROXIMATE COAL DEPTHS 75 feet  
 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