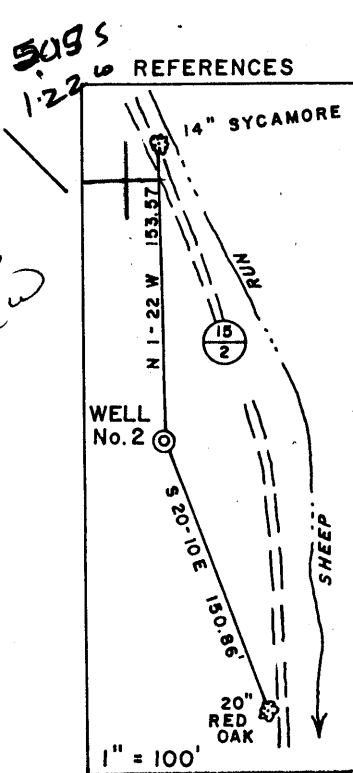
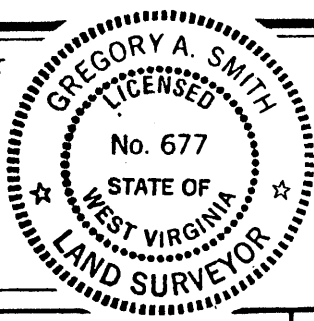


304.75  
ACRES ±



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.

L.L.S. Gregory A. Smith  
677



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

DATE APRIL 16, 19 87

OPERATORS WELL NO. LOWTHER NO. 2


API WELL NO. 47 - 085 - 7652

STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 1636 (20-63)

PROVEN SOURCE OF ELEVATION JUNCT. OF ROADS ELEV.=661' SCALE 1"=1000'

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 659' WATERSHED SHEEP RUN Harrisville 15' NW

DISTRICT GRANT 2 COUNTY RITCHIE QUADRANGLE CAIRO 7.5' 275

SURFACE OWNER COZBI J. LOWTHER et. al. ACREAGE 304.75 057

ROYALTY OWNER COZBI J. LOWTHER et. al. LEASE ACREAGE 304.75 NW 1

PROPOSED WORK: LEASE NO. \_\_\_\_\_

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION MARCELLUS

MAY 26 1987 ESTIMATED DEPTH 5000'

WELL OPERATOR JAY-BEE OIL & GAS CO. 428 DESIGNATED AGENT RANDY BRODA

ADDRESS 1720 RT. 22 EAST, UNION, NJ 07083 ADDRESS RT. 1 BOX 5, CAIRO, WV 26337

LONGITUDE 81-10-00

0651'

COUNTY NAME

PERMIT



WR-35

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OCT 06 1988

State of West Virginia

DEPARTMENT OF ENERGY

Oil and Gas Division

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Date 9/27/88

Operator's

Well No. 2

Farm Lowther

API No. 47 - 085 - 7652

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    / Underground Storage    / Deep    / Shallow x /)

LOCATION: Elevation: 659' Watershed Sheep Run  
District: Grant County Ritchie Quadrangle Cairo 7.5'

COMPANY Jay Bee Oil & Gas

ADDRESS 1720 Route 22 East, Union, N.J.

DESIGNATED AGENT 07083

ADDRESS Rt. L, Box 5, Cairo, WV 26337

SURFACE OWNER Cozbi Lowther

ADDRESS 307 E. Main St. Harrisville, WV

MINERAL RIGHTS OWNER Same 26362

ADDRESS "

OIL AND GAS INSPECTOR FOR THIS WORK Samuel

Hurseman ADDRESS Rt. 1 Box 240 Harrisvil

PERMIT ISSUED May 21, 1987 WV 26362

DRILLING COMMENCED Nov. 24, 1987

DRILLING COMPLETED Jan. 29, 1988

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 13<br>20-16-<br>Cond. | 50  |                 |                              |
| 13-10 <sup>3/4</sup>       | 300   | 300             | To surface                   |
| 9 5/8                      |   |                 |                              |
| 8 5/8                      | 836   |                 |                              |
| 7                          | 1820  |                 |                              |
| 5 1/2                      |   |                 |                              |
| 4 1/2                      | 3343  | 3343            | 250 SKS                      |
| 3                          |   |                 |                              |
| 2                          |   |                 |                              |
| Liners<br>used             | <div style="text-align: center;"> <br/>           OCT 31 1988<br/>           DIVISION OF OIL &amp; GAS<br/>           DEPARTMENT OF ENERGY         </div> |                 |                              |

GEOLOGICAL TARGET FORMATION Marcellus Depth 5000 feet

Depth of completed well 3373 feet Rotary    / Cable Tools X

Water strata depth: Fresh 28 feet; Salt - feet

Coal seam depths: ----- Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Shale Pay zone depth 3250 feet

Gas: Initial open flow show 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

(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

(Continue on reverse side)

NOV 7 1988

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

3200 - 3230 20 perfs  
 2950 - 2980 20

1 M N<sub>2</sub>

WELL LOG

| FORMATION        | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS<br>Including indication of all fresh and salt water, coal, oil and gas |
|------------------|-------|--------------|----------|-------------|--|
| Misc. Red Rock   |       |              | 0        | 1030        |  |
| Shales           |       |              |          |             |  |
| Sand             |       |              | 1030     | 1085        | Gas @ 1402 ✓   |
| Grey Shales/Sand |       |              | 1085     | 1460        | Oil @ 1420 ✓   |
| Sand             |       |              | 1460     | 1451        | Gas @ 1546 ✓   |
| Lime             |       |              | 1451     | 1536        | Gas @ 1546 ✓   |
| Sand             |       |              | 1536     | 1690        | Oil @ 1550 ✓   |
|                  |       |              | 1690     | 3373        | Sand   |
|                  |       |              |          | TD-         |  |

366 1589  
 404 2050  
 813 3300

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 DEPARTMENT OF ENERGY

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 OCT 31 1988

DIVISION OF OIL & GAS  
 DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

\_\_\_\_\_  
 Jay Bee Oil & Gas  
 Well Operator  
 By: \_\_\_\_\_  
 Date: 9/28/88

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 ..., encountered in the drilling of a well."



**RECEIVED**  
MAY 06 1987

1) Date: April 16, 19 87  
 2) Operator's Well No. Lowther No. 2  
 3) API Well No. 47 085 7652  
 State County Permit

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: 659' / Watershed: Sheep Run  
 District: Grant 2 / County: 085 Ritchie / Quadrangle: Cairo 7.5' 275
- 6) WELL OPERATOR Jay-Bee O & G CODE: 24610 7) DESIGNATED AGENT Randy Broda  
 Address 1720 Rt. 22 East / Address Rt. 1, Bcx 5  
Union, NJ 07083 / Cairo, WV 26337
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Samuel Hersman  
 Address P.O. Box 66  
Smithville, WV 26178
- 9) DRILLING CONTRACTOR: Name \_\_\_\_\_ 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, Marcellus
- 12) Estimated depth of completed well, 5000 feet
- 13) Approximate trata depths: Fresh, 40' feet; salt, N/A feet.
- 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes  / No  /

15) 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             | 10"            |       |                |     |      | 300'              | 300'         | CTS                                  | Kinds By Rule 15.05         |
| Fresh water           |                |       |                |     |      |                   |              |                                      |                             |
| Coal                  | 8 5/8"         |       |                |     |      | 1200'             | 0            |                                      | Sizes                       |
| Intermediate          | 7"             |       |                |     |      | 2000'             | 0            |                                      |                             |
| Production            | 4 1/2"         |       |                |     |      | 5000'             | 5000'        | By Rule 15.0                         | Depths set                  |
| Tubing                |                |       |                |     |      |                   |              | OR 500 SCS                           |                             |
| Liners                |                |       |                |     |      |                   |              |                                      | Perforations:<br>Top Bottom |

OFFICE USE ONLY  
**DRILLING PERMIT**

Permit number 47-085-7652

May 21 19 87  
 Date

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 21, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

|   |  |                 |                   |                     |                 |                |                  |
|---|--|-----------------|-------------------|---------------------|-----------------|----------------|------------------|
| Bond: <input checked="" type="checkbox"/> | Agent: <input checked="" type="checkbox"/> | Plat: <u>KS</u> | Casing: <u>KS</u> | Fee: <u>732 201</u> | WPCP: <u>KS</u> | S&E: <u>KS</u> | Other: <u>KS</u> |
|---|--|-----------------|-------------------|---------------------|-----------------|----------------|------------------|

NOTE: Keep one copy of this permit posted at the drilling location.

[Signature]  
 Director, Division of Oil and Gas

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

10094