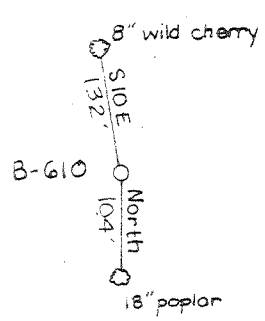


References



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

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 200'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Road Intersection 2200' North of Location; elev. 1562

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) David L. Jackson
 R.P.E. _____ L.L.S. 708

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE September 7, 1984
 OPERATOR'S WELL NO. B-610
 API WELL NO. _____

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1445' WATERSHED Flag Run
 DISTRICT Krottsville 6 COUNTY Taylor
 QUADRANGLE Thornton 6387 1/2' or 15' 123 SW 7
 SURFACE OWNER Evelyn McVicker ACREAGE 6.30
 OIL & GAS ROYALTY OWNER Evelyn McVicker LEASE ACREAGE 6.30
 LEASE NO. 2431

PROPOSED WORK: DRILL X 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 Haverly 082 ESTIMATED DEPTH 5600
 WELL OPERATOR Berry Energy Consultants & Mgrs., Inc. DESIGNATED AGENT Berry Energy Consultants & Mgrs., Inc.
 ADDRESS P.O. Box 5, Clarksburg, WV 26301 ADDRESS P.O. Box 5, Clarksburg, WV 26301

OCT 29 1984

FORM IV 6 (8-78)

COUNTY NAME PERMIT

RECEIVED



MAY 6 - 1985

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date May 3, 1985
Operator's Well No. BJ-610
Farm McVicker
API No. 47 - 091 - 0438
91-0438

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

TYPE: Oil ___ / Gas x / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production x / Underground Storage ___ / Deep ___ / Shallow x /)

LOCATION: Elevation: 1445 Watershed Flag Run
District: Knottsville County Taylor Quadrangle Thornton 7.5

OWNER: J&J Enterprises, Inc.
ADDRESS: P.O. Box 48, Buckhannon, WV 26201
DESIGNATED AGENT: Richard Reddecliff
ADDRESS: P.O. Box 48, Buckhannon, WV 26201
SURFACE OWNER: Evelyn M. McVicker
ADDRESS: Rt. # 1, Box 221, Philippi, WV 26416
MINERAL RIGHTS OWNER: Same as surface
REGULATORY AGENCY: Donald Ellis
ADDRESS: 2604 Crab Apple Lane, Fairmont, WV 26554
PERMIT ISSUED: 10/12/84
DRILLING COMMENCED: 1/7/85
DRILLING COMPLETED: 1/17/85
APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR WORKING. VERBAL PERMISSION OBTAINED

| Casing Tubing | Used in Drilling | Left in Well | Cement fill up Cu. ft. |
|------------------|------------------|--------------|------------------------|
| Size 20-16 Cond. | | | |
| 13-10" | 30 | 0 | 0 sks. |
| 9 5/8 | | | |
| 8 5/8 | 1107.70 | 1107.70 | 270 sks. |
| 7 | | | |
| 5 1/2 | | | |
| 4 1/2 | 5515 | 5515 | 350 sks. |
| 3 | | | |
| 2 | | | |
| Liners used | | | |

GEOLOGICAL TARGET FORMATION Haverty Depth 5360-84 feet
Depth of completed well 5712 feet Rotary x / Cable Tools ___
Water strata depth: Fresh 50 feet; Salt 0 feet
Coal seam depths: 365-70, 800-803 Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Haverty Pay zone depth 5360-84 feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Ebl/d
Combined Final open flow 2,000 Mcf/d Final open flow ___ Ebl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1400 psig (surface measurement) after ___ hours shut in
(If applicable due to multiple completion--)
Second producing formation 4th Elk, Benson & Riley pay zone depth 5113-20 feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Ebl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Ebl/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)

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

Haverty: Perforations: 5360-84 (12 holes)
4th ELk: Perforations: 5113-20 (14 holes)
Benson: Perforations: 4301-03 (8 holes)
Riley: Perforations: 4066-82 (14 holes)

FOAM FRAC

BOTTOM HOLE PRESSURE Pf=PweXGLS

=60 + (5515 x 0.0075) + 459.7 = 561 X= $\frac{1}{53.34}$ T= $\frac{1}{53.34}$ (561) = $\frac{1}{29923}$ = 0.0000334 Pf=(1400)(2.72)

0.0000334)(0.670)(4725)(0.9) Pf=(1400)(2.72) (0.095)=(1400)(1.1)

f= 1540 psi

WELL LOG

| FORMATION | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS Including indication of all and salt water, coal, oil ar |
|------------------|-------|--------------|----------|-------------|--|
| Fill | | | 0 | 10 | |
| Sand | | | 10 | 365 | 1/2" stream @ 50' |
| Coal | | | 365 | 370 | |
| Sand | | | 370 | 525 | Gas ck @ 2140 No show |
| Sand & shale | | | 525 | 680 | |
| White sand | | | 680 | 800 | Gas ck @ 3310 No show |
| Coal | | | 800 | 803 | |
| Sand & shale | | | 803 | 975 | Gas ck @ 3800 No show |
| Red rock | | | 975 | 1340 | |
| Big Lime & Injun | | | 1340 | 2120 | Gas ck @ 4700 No show |
| Sand & shale | | | 2120 | 3366 | |
| Sand & shale | | | 3266 | 4066 | |
| Riley | | | 4066 | 4082 | |
| Sand & shale | | | 4082 | 4301 | |
| Benson | | | 4301 | 4303 | |
| Sand & shale | | | 4303 | 5113 | |
| 4th ELk | | | 5113 | 5120 | |
| Sand & shale | | | 5120 | 5360 | |
| Haverty | | | 5360 | 5384 | |
| Sand & shale | | | 5384 | 5712 | |
| | | | | T.D. | |
| | | | | Brallier@ | T.D. |

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

By:

Daniel F. Stark - Geologist

Date: 5/3/85

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



1) Date: September 26, 1984
 2) Operator's Well No. B-610
 3) API Well No. 47 - 091 - 0438
 State _____ County _____ Permit _____

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

- 4) WELL TYPE: A Oil _____ / Gas XX /
 B (If "Gas", Production XX / Underground storage _____ / Deep _____ / Shallow XX /)
- 5) LOCATION: Elevation: 1445 Watershed: Flag Run
 District: Knottsville County: Taylor Quadrangle: Thornton 7 1/2'
- 6) WELL OPERATOR Berry Energy Consultants & Mgr's., Inc. 7) DESIGNATED AGENT David B. Berry
 Address P. O. Box 5 Address P. O. Box 5
Clarksburg, WV 26301 Clarksburg, WV 26301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Donald Ellis Name _____
 Address 2604 Crab Apple Lane Address _____
Fairmont, WV 26554
- 10) PROPOSED WELL WORK: Drill XX / Drill deeper _____ / Redrill _____ / Stimulate XX /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Haverty
- 12) Estimated depth of completed well, 5600 feet
- 13) Approximate strata depths: Fresh, 40' - 155' feet; salt, None feet.
- 14) Approximate coal seam depths: Unknown Is coal being mined in the area? Yes _____ / No XX /

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 | 11 3/4 | API | 42 # | X | | 30' | 30' | | Kinds |
| Fresh water | | | | | | | | | |
| Coal | | | | | | | | | Sizes |
| Intermediate | 8 5/8 | API | 24# | X | | 1100' | 1100' | TO SURFACE | <u>NEAT</u> |
| Production | 4 1/2 | API | 10# | X | | 5500' | 5500' | 400 SKS | Depths set |
| Tubing | | | | | | | | | <u>as required by</u> |
| Liners | | | | | | | | | Perforations <u>15.01</u> |
| | | | | | | | | | Top Bottom |

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-091-0438 Date October 12, 19 84

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 October 12, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

| | | | | |
|-----------------|------------------|-----------------|-------------------|------------------|
| Bond: <u>10</u> | Agent: <u>MH</u> | Plat: <u>MH</u> | Casing: <u>MH</u> | Fee: <u>8300</u> |
|-----------------|------------------|-----------------|-------------------|------------------|

Margaret J. Hesse
 Administrator, Office of Oil and Gas