

SEP 10 1986

IV-35 (Rev 8-81)

DIVISION OF OIL & GAS DEPARTMENT OF Minte of Mest Birginia Bepartment of Mines Gil und Gas Bivision

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|--------|--------------------|
| Date_ | September 5, 1986 |
| Operat | or's |
| Well N | io#1 |
| Farm | Dean Brookover |
| API No | o. 47 - 107 - 1388 |

WELL OPERATOR'S REPORT

OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

| District: Williams County Wood District: Wood District: Williams County Wood District: Wood | Casing Tubing Size 20-16 Cond. 13-10" 9 5/8 8 5/8 7 5 1/2 4 1/2 | Used in Drilling | Ieft | Cement fill up |
|--|---|------------------|-----------------|------------------------------|
| Blauser Well Service, Inc. DDDRESS Marietta, OH 45750 DESIGNATED AGENT Stanley K. Wilson DDDRESS Big Springs, WV 26137 BURFACE OWNER Harlan Dean Brookover ADDRESS Williamstown, WV 26187 MINERAL RIGHTS OWNER same ADDRESS DIL AND GAS INSPECTOR FOR THIS WORK Glen Robinson ADDRESS Mineralwells, WV PERMIT ISSUED December 17, 1985 DRILLING COMMENCED January 14, 1986 DRILLING COMPLETED January 20, 1986 TE APPLICABLE: PLUGGING OF DRY HOLE ON | Casing Tubing Size 20-16 Cond. 13-10" 9 5/8 8 5/8 7 5 1/2 4 1/2 | Used in Drilling | Left in Well | Cement fill up Cu. ft. |
| Marietta, OH 45750 DESIGNATED AGENT Stanley K. Wilson ADDRESS Big Springs, WV 26137 SURFACE OWNER Harlan Dean Brookover ADDRESS Williamstown, WV 26187 MINERAL RIGHTS OWNER same ADDRESS DIL AND GAS INSPECTOR FOR THIS WORK Glen Robinson ADDRESS Mineralwells, WV PERMIT ISSUED December 17, 1985 DRILLING COMMENCED January 14, 1986 DRILLING COMPLETED January 20, 1986 TE APPLICABLE: PLUGGING OF DRY HOLE ON | Tubing Size 20-16 Cond. 13-10" 9 5/8 8 5/8 7 5 1/2 4 1/2 | Drilling | in Well | fill up Cu. ft. |
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| ADDRESS Williamstown, WV 26187 MINERAL RIGHTS OWNER same ADDRESS DIL AND GAS INSPECTOR FOR THIS WORK Glen Robinson ADDRESS Mineralwells, WV PERMIT ISSUED December 17, 1985 DRILLING COMMENCED January 14, 1986 DRILLING COMPLETED January 20, 1986 TE APPLICABLE: PLUGGING OF DRY HOLE ON | Cond. 13-10" 9 5/8 8 5/8 7 5 1/2 4 1/2 | 350' | 350' | surface |
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| Robinson ADDRESS Mineralwells, WV PERMIT ISSUED December 17, 1985 DRILLING COMMENCED January 14, 1986 DRILLING COMPLETED January 20, 1986 TE APPLICABLE: PLUGGING OF DRY HOLE ON | 7 5 1/2 4 1/2 | 350' | 350' | surface |
| Robinson ADDRESS Mineralwells, WV PERMIT ISSUED December 17, 1985 DRILLING COMMENCED January 14, 1986 DRILLING COMPLETED January 20, 1986 TE APPLICABLE: PLUGGING OF DRY HOLE ON | 5 1/2 4 1/2 | | | 1 |
| DECEMBER 17, 1985 DRILLING COMMENCED January 14, 1986 DRILLING COMPLETED January 20, 1986 TE APPLICABLE: PLUGGING OF DRY HOLE ON | 4 1/2 | | 1 | 1 |
| DRILLING COMMENCED January 14, 1986 DRILLING COMPLETED January 20, 1986 TF APPLICABLE: PLUGGING OF DRY HOLE ON | 4 | - 1 | | |
| DRILLING COMPLETED January 20, 1986 TF APPLICABLE: PLUGGING OF DRY HOLE ON | _ | 2276.80' | 2276.80' | 295 sx |
| TF APPLICABLE: PLUGGING OF DRY HOLE ON | 3 | | | |
| IF APPLICABLE: PLUGGING OF DRY HOLE ON | 2 | | | |
| CONTINUOUS PROGRESSION FROM DRILLING OR | Liners | | | |
| REWORKING. VERBAL PERMISSION OBTAINED | useđ | | | |
| ON | 1 | <u> </u> | | - |
| GEOLOGICAL TARGET FORMATION Berea | | | | <u>fee</u> |
| Depart of Carpeter | | / Cabl | | • |
| Water strata depth: Fresh 350 feet; | Salt | | | • |
| Coal seam depths: n/a | . Is coal | being mir | ned in the | area? no |
| OPEN FLOW DATA | | | | |
| Producing formationBerea | Pa | y zone dep | oth 2208 | feefee |
| case Initial open flow 0 Mcf/d | Oil: In | itial oper | n flow 0 | Bb1/ |
| Final open flow 15 Mcf/d | Fi | nal open i | flow | 2. Bb1 |
| Time of open flow between init | ial and f | inal tests | s 24 h | ours |
| Static rock pressure 700 psig(surface | e measure | ment) afte | er 108 ho | urs shut i |
| (If applicable due to multiple completion | | | | |
| Second producing formation | Pa | y zone dej | pth | fee |
| Gas: Initial open flowMcf/d | Oil: In | itial ope | n flow | Bb1, |
| Final open flowMcf/d | Oil: Fi | nal open | flow | Bbl, |
| Time of open flow between init | tial and f | inal test | sh | ours |

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

Perforated interval $\frac{2208'-2212'}{15\%}$ with 17 shots Acidized with 250 gal. 15% HCL Fractured well with 624 bbls. fluid and 41,000 lbs. 12/20 mesh sand

WELL LOG

| | | | | • • | | |
|-----------|-------------------------|---|------|--|--|---|
| FORMATION | WLOR | HARD ÒR | SOFT | TOP FEET | BOTTOM FEET | REMARKS Including indication of all fresh and salt water, coal, oil and gas |
| | Big I Shale Coffe | & Shale njun Sand e Shale Sand | | 1004 1008 1096 1204 1324 1344 1746 1880 2180 2208 2212 | 1008 1096 1204 1324 1344 1746 1880 2180 2208 2212 TD TO 2277 6tm. 412"(sg) | saltwater saltwater saltwater oil & gas |
| | | | | | | |

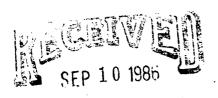
(Attach separate sheets as necessary)

| Blauser | Well Service, Inc. | |
|-------------|--------------------|-------------|
| Well Operat | | |
| By: Horos | m. Hhok | Sec./Treas. |
| | 5, 1986 | |

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 only, encountered in the drilling of a well."

PORM IV-36 [08-76]



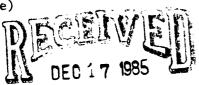
| Date: | Sep | t. 5 | , | _, 86 |
|--------------------|-----------|-------|--------------|---------------|
| Operator's Well No | #1 | (D. | Broo | kover) |
| API Well No. | 47 Sta | te Co | 107 ounty | - <u>1388</u> |

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

WELL OPERATOR'S REPORT OF INITIAL GAS-OIL RATIO TEST

| ELL | OPERATOR _ | Blause | r Well Ser | vice, Inc. | DES | IGNATE | ED AGENT _ | | K. Wilso | |
|------|------------|----------------------|--------------------------|--|-----------------------|------------|-----------------------|--------------------------------|-----------------|-------------|
| | Address | D. O. Day, 000 | | | | | ress | Route 1, Box 116 | | |
| | | Mariet | ta, OH 45 | 750 | • | | | Big Spr | ings, WV | 26137 |
| EOL | GICAL TARG | ET PORMATI | ON: | Berea | | | De | pth | 2208 | fee |
| | | | • | | Perfora | tion 1 | Interval _ | 220 | 8 - 2212 | fee |
| | | • | • | | - | | _ | | | |
| UIDI | ELINES FOR | TESTING: | | | | | | | • | |
| | 3- Uniform | er preflow producing | into pipel rate duri: | flared ines or tanks ng the 24 hour r Form IV-39, h producing fo | REDUTE C | ,, ,,,,,,, | 10 L 1 1 D L | tion" (<u>see</u> mpletion | z Regulatio | on 21.01) |
| | | | • | TI | EST DATA | | | | | |
| | START O | F TEST-DATE | | END OF TEST | -DATE | TIME | | RATION OF TE | ST | |
| | | 15/86 PRESSURE | 9:00 am | 6/16/86 SURE SEPARA | TOR PRESSUR | 9:00 a | M Z | 4 hours TEMPERATURE | | |
| | _ | 1 | 700 | | n/a | ļ | n | /a | CAL MILTY | |
| | OIL PRO | DUCTION DURI | | PRODUCTION DUR | | IATER PE | RODUCTION DL | IRING TEST & | - pom. | |
| | OIL GRA | 2 | bbls. | 15 PRODUCINI | Mcf G METHOD (F | lowing, | bbls. , pumping, g | as lift, et | c.) | |
| . • | | 5.5 | *AF | 1 | pumping | | | | | |
| | | | | CAS | PRODUCT I ON | | • | | | |
| • | MEASURE | MENT METHOD | | | RODOCTTON | | SITIVE CHOP | | | |
| | FLANG | L TAP | PIPE TAP | _ | | | RITICAL FLOW | | X | |
| | ORIFICE | DIAMETER | | PIPE DIAMET | ER (INSIDE | DIAM.) | | CHOKE SIZE - | | |
| | DIFFERE | NTIAL PRESSU | IRE RANGE | MAX. STATIC | PRESSURE F | RANGE | PROVER & | ORIFICE DIA | 1/8" | |
| | DIFFERE | NT IAL | | STATIC | | | | TY (Air-1.0 |) | |
| | GAS GRA | VITY (Air-1. | 0) | FLOWING TEM | PERATURE | | | RATURE | 60 ° i | |
| | 24 HOUR | COEFFICIENT | | <u></u> | | | 24 HOUR C | COEFFICIENT | . 05 | |
| | 24 11001 | | | | | | PRESSURE | | 5.25 45 psiz | _ |
| · | | • | | 7. | | | 1 FR: 330RE | | 40 | |
| | DAILY O | 113 | DAILY WAT | | ST RESULTS DAILY (| | | S-OIL RATIO | , | |
| | | 2 bbls. | . | none bbis. | | (15) | Mc1. | 7,500 | SCF & TE | |
| | | | | | Ву | | | Well Serv Well Opera | heh | |

7/85





| 1) Date: | Dec | . 13, | | 5 |
|--------------------------|-------|-------|-----------|---|
| 2) Operator's Well No | #1 | (D. | Brookover |) |
| 3) API Well No. | 47 | 1 | 07 -1388 | |
| | Stota | | D. | : |

STATE OF WEST VIRGINIA

DIVISION OF OIL & GREPARTMENT OF ENERGY, OIL AND GAS DIVISION SPARTMENT OF ENERGY APPLICATION FOR A WELL WORK PERMIT

| | DEF | AHIME | IN COL | | | | | | | |
|--|--|---------------------------------------|--------------|-------------------------|-----------|--------------|------------------------------------|---------------------------------|--------------------------|--|
| 4) | WELL TYP | | | | | | | | | v. |
| | | B (I | f "Gas", I | | | ζ | | nd storage | _/ Deep | _/ Shallow/) |
| 5) | LOCATIO | | vation: | | 00' | | Watershed: | | | |
| | | | | Willi | | 095 | | | | Valley Mills 7.5' |
| 6) | | - | | | | | | _ 7) DESIGNATED | | V |
| | Address | | Blause | | | | | Address | Rout | |
| | | | | | | | | | Springs, WV 26137 | |
| 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Glen P. Robinson Name Warren Drilling | | | | | | | | on Duilling | | |
| D+ 3 | | | | | | | | | en biliting | |
| | Address Kt 1. #6 Mt. Pleasant Est. Address | | | | | | | | | |
| 10) | DDODOSE | | | | V | | | (D = 4=10 | ^ | , |
| 10) | PROPOSE | . WELL | WUKK: | Drill | | _/ Drill | | / Redrill forate new formation_ | | |
| | | | | _ | | | n well (specify)_ | forate new formation_ | | |
| 11) | GEOLOGI | CAL TADA | CET FOR | | n. | erea | 395 | | | - |
| , | 12) Estima | | | | , | 300' | | eet | | |
| | 13) Approx | • | • | | | 320' | | salt. 1500' | feet. | |
| | 14) Approx | | • | • | | ′a | | coal being mined in the | | / No X |
| | CASING A | | • | | | | | | 2.02. | |
| | SING OR | l | | IFICATION | s | ! | FOOTA | GE INTERVALS | CEMENT FILL-UP | PACKERS |
| | BING TYPE | Size | Grade | Weight per ft. | New | Used | For drilling | Left in well | OR SACKS (Cubic feet) | |
| Cond | juctor | SHAR | Grade | per it. | 1464 | Caeu | For Grining | Den in wen | (Cook leet) | / Kinds |
| | water | 0 5/0 | H-40 | 24 | X | | 350' | 350' | to surface | Dy rule 15.05 |
| Coal | | 0 3/0 | 11-40 | | 1 | | 330 | J JU | CO SUITACE | Sign Sign |
| | mediate | | | | | | | | 1 | 7 |
| | uction | 4 1/2 | J-55 | 9.5 | X | | 2300' | 2300' | 500 1 ★2 | baths at over |
| Tubii | | | 0 00 | 1 | 1 ^- | | 2500 | 2500 | DAS | March |
| Linc. | | | | | | 1 | | | 1 / 330 | Perforations: |
| | | | | 1 | | | | | | Top Bottom |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | OFFICE US | E ONLY | | |
| | • | | | | | | DRILLING | PERMIT | | |
| Darn | nit number | 17- | 107-1 | 388 | | | | | De | ecember 17 1985 |
| FEIII | nit number_ | | | 000 | | | | | Da | |
| This | permit cove | ring the w | ell operate | or and we | ll locati | on show | n below is evider | ice of permission grante | ed to drill in accorda | nce with the pertinent legal re- |
| quire | ements subje | ct to the c | onditions | contained | herein | and on th | ne reverse hereof | Notification must be gi- | en to the District Oil | and Gas Inspector, (Refer to nitractor shall notify the proper |
| No. 8 | Prior to the | e construct | ion of ros | ids, locations before a | ons and | pits for | any permitted we work has comme | ork. In addition, the w | ell operator or his co | ntractor shall notify the proper |
| | _ | - | | | - | | | | 9164 | |
| | permitted works before the permitted work. | ork is as de | escribed in | the Notic | ce and | Application | on, piat, and rec | iamation plan, subject t | o any modifications | and conditions specified on the |
| | nit expires _ | Dec | ember | 17. | 198 | 37 | unless | well work is commenced | prior to that date and | d prosecuted with due diligence. |
| | 6.1. | | | | | | | | , p | - p. 00000000 |
| | | | | . T | | | _ | | | _ |
| E | Bond: | Agent | : I | lat: | Cas | ing | Fee WP | CP S&E | Other | * |
| | | MI | 5 <i>}</i> | つりは | m | レレノ | 7210 1 | 2012 | X / | 1 |
| - | | · · · · · · · · · · · · · · · · · · · | | | | | | | <u> </u> | |
| | | | | | | | | 6/1 | HA | |
| NOT | ΓE: Keep o | ne copy of | this perm | nit posted | at the | drilling lo | cation. | Director, Div | ision of oil | and Gas |
| | | | | 41 | | - F AL . A T | DI ICANTIE G | 1DV for instructions | | File File |