



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

frty

Well Operator's Report of Well Work

| Farm name: | JONES, JOH | N /JOANN LI | ELAND | Oper | ator Well | No.: F. R. | BALL K-5 | | |
|---|--|-----------------------------------|-----------------------------|--------------------------|--------------------------|--|---|---------------------------------------|-------|
| LOCATION: | Elevation: | 830' | | Quad | lrangle: | CENTER I | POINT | | |
| | District: Latitude: Longitude: | • | eet south of eet west of | | Deg 27 | ER Min 30 Min 00 | | | |
| Company: | P.O. BOX 55 | URCES, INC. 519 V 26105-551 | | | Casing & Tubing | Used in Drilling | Left in Well | Cement Fill Up Cu. Ft. | |
| Agent: | MICHAEL N | MCCOWN | | | Size | | | | |
| Inspector: Permit Issued: | MIKE UND | 02/24/03 | | | | | | | _ |
| Well work Con Well work Con Verbal pluggin | npleted: | 03/20/03 | | | 8 5/8" | 219.50' | 219.50' | 50 sks | |
| permission gran Rotary <u>X</u> Total Depth (fe | Cableet) | Rig 3,007 | | | 4 1/2" | 2995' | 2995' | 300 sks | |
| Fresh water dept | | NA NA | | | | | Office of Old Control | 7.23 | |
| Is coal being m | | //N) NA | N | | | | | 3013 | |
| Coal Depths (f | - | INA | • | | | | VM Oabatio | Protoclord | |
| OPEN FLOW | | erflood injection | on woll | | | | Last 1 Williams | n Lucina (1967 - 12), marie (194 | |
| Gas: | cing formation Initial open Final open f | flow low en flow betw | Gordon * N reen initial a | MCF/d MCF/d nd fin | Fin | Pay zone of ial open flow al open flow essure) | w | 2885'-2912' * Bbl/d * Bbl/d s Hour | I |
| Secon Gas: | d producing fo Initial open Final open f | flow | | MCF/d MCF/d | | Pay zone of the last open flow all open flow | w | Bbl/d | |
| Static | Time of op rock pressure | en flow betw - | een initial a | nd fir | nal tests surface pre | essure) | Hour after | rs Hour | 'S |
| NOTE: ON BAC OR STIMULATI GEOLOGICAL I | NG, PHYSICAL | CHANGE, ETC. | 2) THE WELI | LLOG | WHICH IS A | A SYSTEMAT | ΓIC DETAILED | ACTURING | TYL |
| | | | For: EAST I By: Date: | RESOU | JRCES, IN | 15er 0 | Colder 5 Ry 105 | | 1/604 |
| | | | 240. | | | | -1-1/03 | MAY 0 2 206 |)3 |
| | 1 | * 1 | | | 97 | 1 1 | • 1 · · · · · · · · · · · · · · · · · · | to and are access | |

Treatment:

Treated Gordon perforations 2904'-2912' with 250 gals 15% HCL, 290 bbls Crosslinked gel water and 15,300# 20/40 sand

Well Log See original well log

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

Well Operator's Report of Well Work

| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ir operator a me | F | | | |
|--|--|---|---------------------|------------------------------|-------------------------|-----------------------------------|
| Farm name: | JONES, JOHN | /JOANN LELAND | Operator | Well No.: F | R. BALL | K-5 |
| LOCATION: | Elevation: | 830.00 Quadr | angle: CE | ENTER POINT | | |
| | Latitude | MCELROY 2950 Feet Sout 4250 Feet West | h of 39 | Deg. 27Min. | . 30 Sec. | |
| VIE | O. BOX 5519 NNA, WV 26 | 105-5519 | | Used in Drilling | | Cement Fill Up Cu. Ft. |
| Permit Issu Well work C Well work C Verbal Plug | MIKE UNDERW ed: commenced: completed: ging | 00D 03/22/94 06/04/94 09/12/94 | Size 8-5/8 | 219.50 | 219.50 | To surface 50 sks. |
| Rotary X Total Depth | granted on: Cable (feet) 30 depths (ft | Rig 007 | 4-1/2 | 2995' | 2995 ' | 300 sks. |
| Is coal bei | depths (ft) Ing mined in s (ft):N | area (Y/N)? N | | | | |
| Gas: 1 | cing formati Initial oper Final open f | * Water Injection on Gordon of flow * MCF flow MCF of flow between issure psi | /d Oil: I /d F | e pressure) | flow * low * ts after | Bbl/d Bbl/d Hours Hours |
| Gas: | Initial oper Final open : Time of oper | formation n flow MCF flow MCF n flow between i sure psi | r/d F .nitial ar | id finat ces | flow low sts | Bbl/d Bbl/d Hours Hours |
| INTERVALS, | FRACTURING IS A SYST | S FORM PUT THE OR STIMULATING EMATIC DETAILED TERED BY THE WEI | GEOLOGIO GEOLOGIO | CAL CHANGE, | ETC. 2). | . THE WELL |

For: PENNZOIL PRODUCTS COMPANY

Date:

TREATMENT

Perforated with 16 holes 2904'-2912'. Treated with 300 gallons 15% HCL acid, 280 barrels gelled water and 7000 lbs. of 20/40 sand.

WELL LOG

| Sand & Shale | 0'-1126' |
|--------------|---------------|
| Sand | 1126'-1154 |
| Sand & Shale | 1154'-1748' |
| Sand | 1748'-1768' |
| Sand & Shale | 1768'-1806' |
| Sand | 1806'-1810' |
| Shale | 1810 - 2012 |
| Sand Service | 2012'-2286' |
| Shale | 2286'-2666' |
| Sand | 2666'-2670' |
| Shale | 2670'-2682' |
| Sand | 2682'-2686' |
| Shale | 2686'-2871' |
| Stray | 2871'-2885' |
| Gordon | 2885'-2913' |
| T.D. | 3007 ' |

| | | | | | | | | | 1 |
|----------------|----------------|--------------|--------------|-------------|----------------------|--|--------------------|---------------------------|--|
| RM, WW-3(B) | FILE CO | PY _ | | | - | | 1) Date:_ | | |
| overse) | | | | | | WEST | 2) Opera Well N | | |
| /91 | | i | | | | 140 2 3 76 | 3) SIC C | | |
| • • | | ļ | | 37 | | E AND AS E | | Vell NO. 47 | · 095 1604s |
| 1 | | \ \ \ \ \ | VUV | 33 | ; | | 4 AFI V | State | County |
| İ | | \ ' | | | | | 5. UIC F | Permit No | |
| | | 1 | | | , | NO STREET, STR | | 00. | 1/00/00/ |
| | . Fort | (L | . | | | | anu (d | 47-195-1504 | ued 03/22/ |
| | | | | Dömi | STA | TE OF WEST VIR | GINIA | | TION |
| | NOTICE | S OF LIG | fotn rua | ECTI | JN UR | for the | L WELL WORK | PERMIT APPLICA | puis O3/22/ |
| 1 | 5.1.1 | | OF 540 | D.O.N | MENT | AL PROTECTION | OFFICE OF | OLL AND GAS | pour Carr |
| | אוע | ISIUN | UF ENV | IKUN | IMENI | AL PROIECTION | i, dirict di | OIE AND GAS | A Company of the Comp |
| | _ | | | | | | | | · the second |
| | · . | . , | | | | | | | : . |
| NOTE: | Well wil | 1 be | iirecti | Lonal | .1y d | rilled N46 - | 43E 775' | | * |
| 6 WELL TV | PF: Liquid | injection | X / C | as inje | ction (n | of storage) | Waste disposal | (m. c.y.) | 3 |
| T) LOCATIO | N: Elevation | , | 830' | | | Watersho | d: <u>Indian</u> | Creek | |
| | District | Mo | cElrov | | 75) | 4670 County: | Tyler | Quadrangle: | Centerpoint |
| 0 WELLOR | EDATOR I | Pennzo | il Prod | lucts | Com | pany 37450 | 9) DESIGNATE | DAGENT Jame | s A. Crews |
| | 7 | P. O. 1 | Box 55 | 19 | , | | Addr | ess P. C | Box 5519 |
| AG | | | , WV | | 5 | | 200 | | ma. WV 26105 |
| 10) OIL & GA | | | | | <u>,</u> | | | | |
| | 7 | Vike II | nderwoo | od / | (2): 5 | | II) DRILLING | CONTRACTOR: | |
| Name | 1 | | Box 1 | | | / | • • | | |
| Address | | | WV 2 | | | | Address | | |
| | <u>`</u> | June 1 | | | | | | | |
| | | ODV. | Drill X | | / Drill | deeper | 7 Redrill | / Stimulate | |
| 12) PROPOSE | D WELL W | OKK: | | | | on_/ Perforate nev | | | |
| | * | | _ | | | | | | |
| | | | | | | n well (specify) | 9 | onth 2800 feet | top) to 2815 feet (botto |
| 13) GEOLOG | ICAL TARG | ET FORM | AATION, | | Gorac | isting well) 290 | | 7.D. = 2810' | 100) 10 |
| 14) Estimated | depth of cor | mpleted w | ell, (or act | ual dep | th or ex | | 1050 | | |
| | ate water str | | | <u> 20</u> | | feet; salt, | 1050 feet. | | |
| 16) Approxim | ate coal seam | depths: | | 42 | 77 | | ~ | | |
| 17) Is coal be | ing mined in | the area? | Yes | / No_ | $\frac{\Delta}{400}$ | | | | |
| 18) Virgin res | ervoir pressur | re in target | formation | <u></u> | 400 | _psig. SourceE | | | |
| 19) Estimated | reservoir fra | cture press | sure | 3 | 500 | | psig (BHFP) | | 2222 |
| 001 144 VILI | IM DDODOS | EDINIE | CTIONO | PERAT | IONS: | Volume per hour: | 25 | Bottom hole pressu | |
| 21) DETAIL | ED IDENTIE | CATION | OFMAT | FRIAL | S TO B | E INJECTED. INCLU | JDING ADDITIVE | S: <u> </u> | produced wate |
| bacter | ricides, | and o | ther c | <u>hemi</u> | <u>cals</u> | as necessary | <u>to maintair</u> | <u>n water quali</u> | ry and improve |
| 22) FILTERS | (IF ANY) | Cartr | idge f | ilte | rs ai | nd/or coalbed | filters | | recove |
| 22) IEIER | CATIONS | OR CATH | ODIC PR | OTEC | TION A | ND OTHER CORRO | SION CONTROL: | | |
| 23) SPECIFI | CATIONS F | CKCAIN | JDIC I K | J - 14 | | . = | | | <u> </u> |
| | AND TURE | NC PROC | ED AN4 | | | | | | ** **** |
| 24) CASING | AND IUBI | NU PRUC |)KAM | | | - | | Creative man are | 3% . PACKERS |
| CASING OR | | SPEC | IFICATIONS | | 1 | FOOTAGE IN | TERVALS | CEMENT FILLUP OR SACKS | PACALAS |
| TUBING TYPE | Star | Grade | per ft. | New | Used | For drilling | Left in well | (Cabic feet) | |
| Conductor | | | | | | | | | Kinds |
| Fresh water | 8-5/8 | T.S | 20 | x | | 2001 | 2001 | cement to | |

2900'

Tyler County Clerk's office in Lease

2900'

September 11

Book

F. R. Ball

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

_/ lease__X_/ other contract____/ dated _

10.5

Coal

Production

Tubing

4-1/2 J-55

25) APPLICANT'S OPERATING RIGHTS were acquired from_

of record in the

surface

cement over

salt sand

27

Depths set

Perforations:

XX 1895

at page

| FORM | WW- | 3 | (A) |
|-------|-----|---|-----|
| Obver | se | | |

| | NUV | 0 | 1 | |
|---|-----|---|---|--|
| Ì | * | | | |

| 1) | Date_ | October | 28, | 1993 | * |
|----|-------|---------|-----|------|---|
| | 00000 | +0-10 | | | |

2) Well No. F. R. BALL NO. K-5

3) SIC Code

7 (i) COAL OPERATOR

API Well No. 47 095 State County Permit

STATE OF WEST VIRGINIA

NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION for the

DIVISION OF OIL AND GAS, DEPARTMENT OF ENERGY

| | | | | | Address |
|--------|-------------------------------|---|---|------------------------------------|--|
| (i) | Name Joh | n Jones & Joann & K | <u>Kevin Lel</u> an | | |
| | Address | 720 James Street | | 7 (ii) | COAL OWNER(S) WITH DECLARATION ON RECORD |
| | _ | New Martinsville, | WV 26155 | | Name |
| (ii) | Name Ken | neth Glover | | | Address |
| | Address | HC 62, Box 45 | | | |
| | | | 26377 | 7 (iii) | COAL LESSEE WITH DECLARATION ON RECORD: |
| (iii) | Name | | | | Name |
| | Address | | | | Address |
| | | | | | |
| TO THE | PERSON(S) | NAMED ABOVE: You | should hav | e receive | ed this Form and the following documents: |
| 10 Inc | I ERSON(S) | NAMED ABOVE: 100 | SHOULd HEV | e lecelar | ed this form and the following documents: |
| (1) | 77h - A | 1daabdaa faa a Tdaa | id Injecti | on on Was | As Diseased Well West Description Description |
| (1) | ine App | lication for a Liqu | ira injecti | OII OI Was | ste Disposal Well Work Permit on Form |
| (1) | | | | | in the drilling or other work, and |
| (2) | WW-3(B) | , which sets out th | ne parties | involved | |
| | WW-3(B) The pla | , which sets out the total (surveyor's map) | ne parties showing th | involved e well lo | in the drilling or other work, and |
| (2) | WW-3(B) The pla The Con | , which sets out the transfer of the truction and Recla | ne parties showing th amation Pla | involved e well lo n on Form | in the drilling or other work, and ocation on Form WW-6; and |

The date proposed for the first injection or waste disposal is 19

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM WW-3(B)) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22B of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Director of the Division of Oil and Gas, West Virginia Department of Energy, with respect to a well at the location described on the attached Application and depicted on attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Director.

The person signing this document shall make the following certification:

SURFACE OWNER(S) OF RECORD TO BE SERVED

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. am aware that there are significant penalties for Telephone (304) 422-6565 submitting false information, including the possibility of fine and imprisonment.

Pennzoil Products Company

Well pperator

Timothy P.

Supervisor, Surveying/Mapping