State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas  

Well Operator's Report of Well Work  

Farm name: BENSON, KERMIT  
Operator Well No.: W.F. SMITH #8  

LOCATION: Elevation: 1022.00  
Quadrangle: WEST UNION  

District: WESTUNION  
County: DODDRIDGE  
Latitude: 11170 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude: 10060 Feet West of 80 Deg. 45 Min. 0 Sec.  

Company: QUAKER STATE CORPORATION  
1226 PUTNAM HOWE DR. P O B 189  
BELEPRE, OH 45714-0000  

Agent: FRANK R. ROTUNDA  

Inspector: MIKE UNDERWOOD  
Permit Issued: 01/18/90  
Well work Commenced: 02/26/90  
Well work Completed: 03/06/90  

Verbal Plugging  
Permission granted on: N/A  
Rotary X Cable Rig  
Total Depth (feet) 5072  
Fresh water depths (ft) 185  
Salt water depths (ft) 900  

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): N/A  

OPEN FLOW DATA  

Producing formation Benson  
Pay zone depth (ft) 4948  

Gas: Initial open flow ___show MCF/d  
Final open flow ___ 80 MCF/d  
Time of open flow between initial and final tests ___ Hours  
Static rock Pressure ___ psig (surface pressure) after ___ Hours  

Oil: Initial open flow ___ Bbl/d  
Final open flow ___ Bbl/d  
Time of open flow between initial and final tests ___ Hours  
Static rock Pressure ___ psig (surface pressure) after ___ Hours  

Second producing formation  

Gas: Initial open flow ___ MCF/d  
Final open flow ___ MCF/d  
Time of open flow between initial and final tests ___ Hours  
Static rock Pressure ___ psig (surface pressure) after ___ Hours  

Oil: Initial open flow ___ Bbl/d  
Final open flow ___ Bbl/d  
Time of open flow between initial and final tests ___ Hours  
Static rock Pressure ___ psig (surface pressure) after ___ Hours  

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLOBORE.  

For: QUAKER STATE CORPORATION  

By: Frank Rotunda  
Date: May 2, 1990
PERF: 4948' - 4952' with 17 shots
FRAC: 895 bbl. fluid, 475 sx. sand, 153M SCF N2

LOG:          FEET:
surface       0 - 90
shale         90 - 183
sand          183 - 210
silt/shale    210 - 310
sand          310 - 410
shale         410 - 450
sand          450 - 490
shale         490 - 535
sand          535 - 582
shale         582 - 630
sand          630 - 665
shale         665 - 900
sand          900 - 927
shale         927 - 1140
sand          1140 - 1182
shale         1182 - 1436
sand          1436 - 1710
silt/shale    1710 - 1902
lime          1902 - 1996
Big Injun     1996 - 2094
shale         2094 - 2240
Weir          2240 - 2330
silt/shale    2330 - 5072
FORM WW-2B

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Quaker State Corporation

2) Operator's Well Number: W.F. Smith #8

3) Elevation: 1022'

4) Well type: (a) Oil / or Gas X /

(b) If Gas: Production X / Underground Storage / Deep / Shallow /

5) Proposed Target Formation(s): Benson

6) Proposed Total Depth: 5056' feet

7) Approximate fresh water strata depths: 335'

8) Approximate salt water depths: 1134'

9) Approximate coal seam depths: N/A

10) Does land contain coal seams tributary to active mine? Yes / No XX /

11) Proposed Well Work:

Drill and fracture new well.

12) CASING AND TUBING PROGRAM

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Specifications</th>
<th>Footage Intervals</th>
<th>Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Size</td>
<td>Grade</td>
<td>Weight per ft.</td>
</tr>
<tr>
<td>Conductor</td>
<td>11 3/4&quot;</td>
<td>H-40</td>
<td>42#</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>8 5/8&quot;</td>
<td>H-40</td>
<td>23#</td>
</tr>
<tr>
<td>Coal</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Intermediate</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>4 1/2&quot;</td>
<td>J-55</td>
<td>10.5#</td>
</tr>
<tr>
<td>Tubing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liners</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PACKERS: Kind
Sizes
Depths set

For Division of Oil and Gas Use Only

Fee(s) paid: [ ] Well Work Permit [ ] Reclamation Fund [ ] WPCP

Plat [ ] WW-9 [ ] WW-2B [ ] Bond $ [ ] Surety
(Type) [ ] Agent
STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
   (a) Name: Kermit Benson
   Address: Route 2
   West Union, WV 26456

   (b) Name: __________________________
   Address: __________________________

   (c) Name: __________________________
   Address: __________________________

5) (a) Coal Operator:
   Name: N/A
   Address: __________________________

   (b) Coal Owner(s) with Declaration
   Name: N/A
   Address: __________________________

   (c) Coal Lessee with Declaration
   Name: N/A
   Address: __________________________

6) Inspector: Harold Mike Underwood
   Address: Rt. 2 Box 114
   Salem, WV 26426
   Telephone (304)-782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or
contracts by which I hold the right to extract oil and gas OR
XX Included is the information required by Chapter 22B, Article 1,
Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code
I have served copies of this notice and application, a location plat, and
accompanying documents pages 1 through ____ on the above named parties, by:

_____ Personal Service (Affidavit attached)
_____ Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree
to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am
familiar with the information submitted on this application form 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.

I am aware that there are significant penalties for submitting false
information, including the possibility of fine and imprisonment.

Well Operator: Quaker State Corporation
By: Frank Rotunda
Its: Designated Agent
Address: P.O. Box 823
        Parkersburg, WV 26102
Telephone: (614) 423-9543

Subscribed and sworn before me this 5th day of January, 1990.

Dolores L. Brinee
Notary Public
Notary Public, State Of Ohio
My Commission Expires March 3, 1993