# Oil and Gas Division
## WELL RECORD

**Company:** Industrial Gas Associates  
**Address:** Box 1610, Greenwich, Conn.  
**Farm:** Oral Husk  
**Acres:** 73.6  
**Location (waters):** Middle Island Creek  
**Well No.:** 1  
**Elev.:** 943  
**District:** West Union  
**County:** Doddridge  
**The surface of tract is owned in fee by:** Elsie Keys  
**Address:** R.R., West Union, W.V.  
**Mineral rights are owned by:** Oral Husk  
**Address:** 850A Waco Dr., Oxon Hill, Md  
**Drilling Commenced:** 11/31/78  
**Drilling Completed:** 12/6/78  
**Initial open flow:** 4 1/2  
**Final production:** 500,000 cu. ft. per day  
**Well open:** 1 hrs. before test 500  
**Well treatment details:**  

<table>
<thead>
<tr>
<th>Casing and Tubing</th>
<th>Used in Drilling</th>
<th>Left in Well</th>
<th>Cement fill up Cu. ft. (Skts.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>20-16</td>
<td></td>
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<tr>
<td>Cond.</td>
<td>13-10&quot;</td>
<td>9 5/8</td>
<td>260</td>
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<td>8 5/8</td>
<td>240</td>
<td>240</td>
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<tr>
<td></td>
<td>7</td>
<td></td>
<td>63 Skts</td>
</tr>
<tr>
<td></td>
<td>4 1/2</td>
<td>2358</td>
<td>2358</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>140 Skts</td>
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<td>2</td>
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<td></td>
<td></td>
<td>Liners Used</td>
<td></td>
</tr>
</tbody>
</table>

Attach copy of cementing record.

- **Weir - Fraced with 360 BBLS water - 10,000#/sand - 55,000 SCF N²**

- **Injum - Fraced with 337 BBLS water 20,000#/sand - 55,000 SCF N²**

### Coal was encountered at
- **None**  
- **Feet**  
- **Inches**

- **Fresh water:** 100  
- **Salt Water:** Feet

### Producing Sand Weir & Injum
- **Depth:**

<table>
<thead>
<tr>
<th>Formation</th>
<th>Color</th>
<th>Hard or Soft</th>
<th>Top Feet</th>
<th>Bottom Feet</th>
<th>Oil, Gas or Water * Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil</td>
<td>Brown</td>
<td>Soft</td>
<td>0</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Sand &amp; Shale</td>
<td>Brown</td>
<td>Soft</td>
<td>15</td>
<td>1550</td>
<td></td>
</tr>
<tr>
<td>Sand</td>
<td>White</td>
<td>Soft</td>
<td>1550</td>
<td>1700</td>
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</tr>
<tr>
<td>Shale</td>
<td>Black</td>
<td>Soft</td>
<td>1700</td>
<td>1855</td>
<td></td>
</tr>
<tr>
<td>Big Lime</td>
<td>White</td>
<td>Hard</td>
<td>-1855</td>
<td>1954</td>
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<tr>
<td>Big</td>
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<tr>
<td>Injum</td>
<td>White</td>
<td>Hard</td>
<td>1954</td>
<td>2048</td>
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<tr>
<td>Shale</td>
<td>Black</td>
<td>Soft</td>
<td>1941</td>
<td>2004</td>
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<tr>
<td>Weir</td>
<td>Brown</td>
<td>Soft</td>
<td>2004</td>
<td>2200</td>
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<tr>
<td>Shale</td>
<td>Black</td>
<td>Soft</td>
<td>2200</td>
<td>2302</td>
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<td>Herea</td>
<td>White</td>
<td>Hard</td>
<td>2302</td>
<td>2400</td>
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<tr>
<td>Shale</td>
<td>Black</td>
<td>Soft</td>
<td>2400</td>
<td>2405</td>
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<td>T.D.</td>
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<td>2405</td>
<td>2652</td>
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### MAY 8 1979
OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE 10-24-78
Company Industrial Gas Associates
Address Box 1619, Greenwich, Conn.

FARM HALEMACK
Acres 72.6

Location (watered) Middle Island Creek

Well No. 1
Elevation 543

District Jesse
County Doddridge

Quadrangle West Union 7 1/4

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 3-1-79.

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land, for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated June 3, 1976, and recorded on the 8th day of June in Doddridge County, Book 104, Page 71.

NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified of as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days.

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY
P. O. Box 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours,

(Sign Name)

Weel Operator

Address

Well Operator

Street

City or Town

State

DODD-2310 PERMIT NUMBER

47-017

SECTION 3... If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, the department shall forthwith issue to the well operator a permit rectifying the filling of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.
PROPOSED WORK ORDER TO DRILL DEEPEN STIMULATE
DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
NAME Gene Stiltsmaker, Inc. NAME Earl Summers
ADDRESS Letter Gap, W. Va. ADDRESS P.O. Box 1486, Parkersburg, WVA
TELEPHONE 462-7002 TELEPHONE 485-7419
ESTIMATED DEPTH OF COMPLETED WELL: 2500 ROTARY XX CABLE TOOLS
PROPOSED GEOLOGICAL FORMATION: Berea
TYPE OF WELL: OIL GAS COMB. STORAGE DISPOSAL
RECYCLING WATER FLOOD OTHER

TENTATIVE CASING PROGRAM:

| CASING AND TUBING SIZE | USED FOR DRILLING | LIFT IN WILL | CEMENT-FILL UP OR SACKS CURR.
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<thead>
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<tbody>
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<td>13 - 10</td>
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<td>9 - 5/8</td>
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<td>7</td>
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<tr>
<td>5 1/4</td>
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<td>2500</td>
<td>125 sks</td>
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<td>2500</td>
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<td>Perf. Eop</td>
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<td>2</td>
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<td>Perf. Bottom</td>
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<tr>
<td>Liners</td>
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<td>Perf. Bottom</td>
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<td></td>
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</tbody>
</table>

APPROXIMATE FRESH WATER DEPTHS 100 FEET SALT WATER FEET
APPROXIMATE COAL DEPTHS 1/4
IS COAL BEING MINED IN THE AREA? No BY WHOM?

TO DRILL:
SUBMIT FIVE (5) COPIES OF OG - 1, $100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:
SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:
OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.
OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company
Official Title