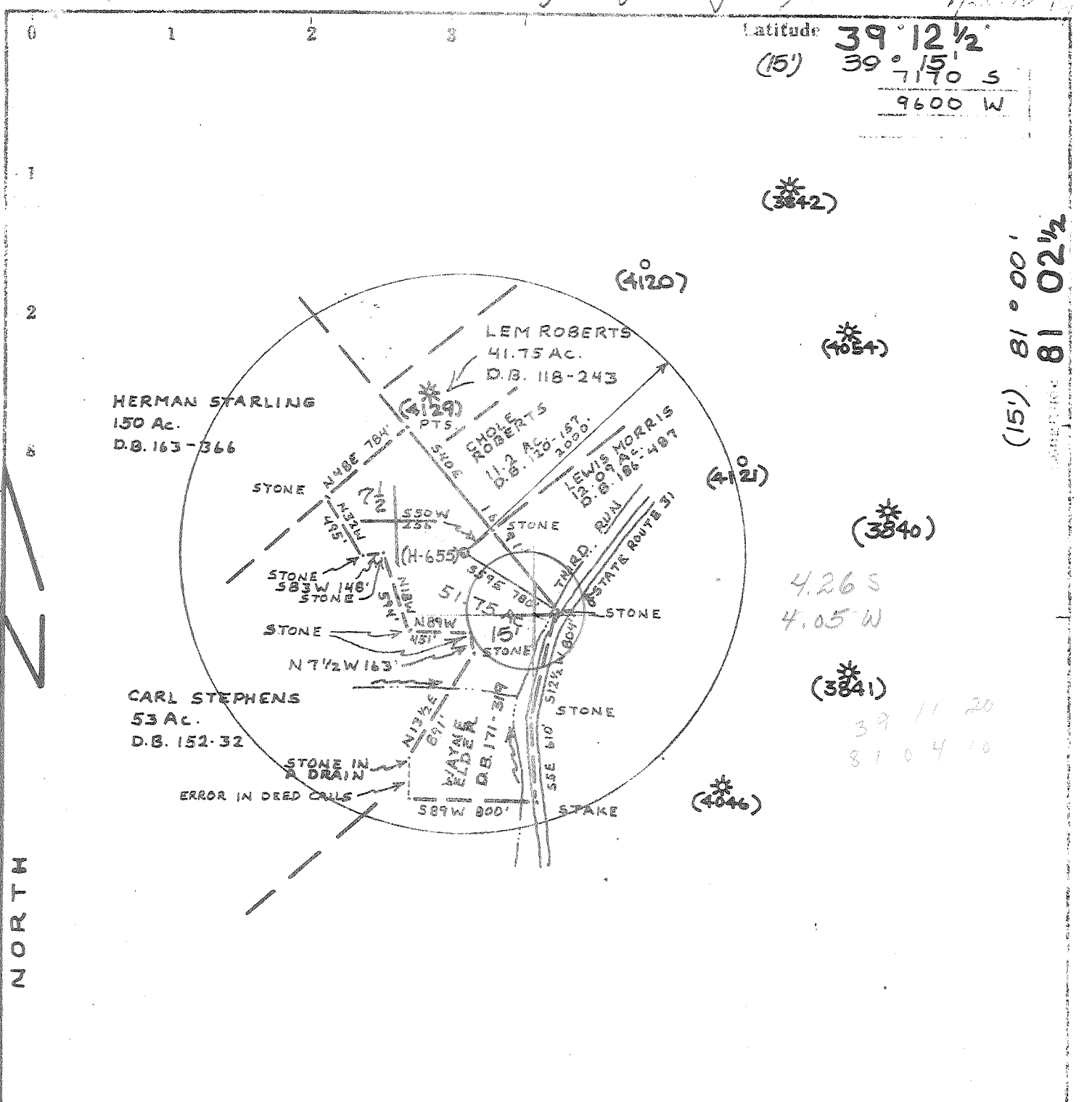


1/21/79

Latitude **39° 12 1/2'**  
 (15') **39° 7 1/2' S**  
**9600 W**



NORTH

API WELL NO. **47 - 085 -**  
 STATE COUNTY PERMIT

Target Formation **BIG INJUN**  
 Estimated Depth **2100'**

PROPOSED WORK:  
 Drill  WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 Fracture  (IF GAS), PRODUCTION  STORAGE  DEEP  SHALLOW   
 Redrill  Source of Elevation **B.M. AT ROAD INTERSECTION ELEV. 795'**  
 New Location  I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.  
 Drill Deeper   
 Abandonment  *William R. Mossor* Minimum accuracy, one part in 200

Well Operator **Russell Johnson**  
 Company **OKlahoma City, OK 73102**  
 Designated Agent **WARREN HAUGHT**  
 Address **SMITHVILLE, W.VA. 26178**  
 SURFACE OWNER **WAYNE ELDER 5 3/4 Ac.**  
 Farm OIL & GAS ROYALTY OWNER **CORDELIA RIDDLE MRS. ET AL**  
 Tract \_\_\_\_\_ Acres **5 3/4** Lease No. \_\_\_\_\_  
 Well (Farm) No. **H-655** Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) **924'** *NE*  
 Water Shed **THIRD RUN**  
 Quadrangle **HARRISVILLE, W.VA. 7 1/2' QUAD. 18'**  
 County **RITCHIE** District **GRANT**  
 Surveyor or Engineer **WILLIAM R. MOSSOR, L.L.S.**  
 Surveyor's or Engineer's Registration No. **551**  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date **23 JAN. 1979** Scale **1" = 1000'**

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

WELL LOCATION MAP  
 FILE NO. **47-085-4224**

Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 — Denotes one inch spaces on border line of original tracing.  
**FEB 9 1979**

66 ELM RUN 123

FORM IV-35  
(Obverse)

Operator's  
Well No. H-655

[08-78]

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

API Well No. 47-085-4224  
State County Per

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal   
(If "Gas", Production  / Underground storage  / Deep  / Shallow )

LOCATION: Elevation: 924' Watershed: Third Run  
District: Grant County: Ritchie Quadrangle: Harrisville, WV7 1/2  
Riddle Hrs. H-655

WELL OPERATOR Russell Johnson DESIGNATED AGENT Warren R. Haught  
Address Oklahoma City, Ok. 73102 Address Smithville, WV 26178

PERMITTED WORK: Drill  / Convert  / Drill deeper  / Redrill  / Fracture or stimulate  
Plug off old formation  / Perforate new formation  APR 16 1979  
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON January 26, 19 79

OIL & GAS INSPECTOR FOR THIS WORK:

(IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED

Name Kenneth Paul Goodnight  
Address Smithville, WV 26178  
477-3660

GEOLOGICAL TARGET FORMATION: Big Injun Depth 1906-1984 feet

Depth of completed well, 2050 feet Rotary  / Cable Tools

Water strata depth: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.

Coal seam depths: None Is coal being mined in the area? No

Work was commenced Feb. 15, 1979, and completed Feb. 18, 1979

CASING AND TUBING PROGRAM

| CASING OR TUBING TYPE | SPECIFICATIONS |       |               |     | FOOTAGE INTERVALS |              | CEMENT FILL-UP OR SACKS (Cubic feet) | REMARKS     |
|-----------------------|----------------|-------|---------------|-----|-------------------|--------------|--------------------------------------|-------------|
|                       | Size           | Grade | Weight per ft | New | Used              | For drilling |                                      |             |
| Conductor             |                |       |               |     |                   |              |                                      | Rigs        |
| Fresh water           | 8 5/8          | K-55  | 20#           | X   |                   | 197'         | 197'                                 | 75 Sacks    |
| Coal                  |                |       |               |     |                   |              |                                      | Sizes       |
| Intermediate          |                |       |               |     |                   |              |                                      |             |
| Production            | 4 1/2          | J-55  | 10.5#         | X   |                   | 1950'        | 100 sacks                            | Depth set   |
| tubing                |                |       |               |     |                   |              |                                      |             |
| sizes                 |                |       |               |     |                   |              |                                      | 1905'-1942' |

OPEN FLOW DATA

Reservoir formation Big Injun Pay zone depth 1906-1984

Case: Initial open flow, \_\_\_\_\_ Mcf/d Final open flow, 265 Mcf/d  
Initial open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Mcf/d

Time of open flow between initial and final tests, 8 hours

Static reservoir pressure, 225 psig (surface measurement) after 12 hours shut in

(If available, list multiple measurements)

Reservoir formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_

Case: Initial open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Mcf/d  
Initial open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Mcf/d

(1978)

[89-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.  
Hydratraced by Halliburton - 3-5-79 -- 1,000 Gal. Acid -- 739 Bbls. Water  
35,000 Lbs. 20-40 Mesh Sand -- 10,000 Lbs. 80-100 Mesh Sand.

Perforations 1905-1942

WELL LOG

| FORMATION         | Color | Hard or Soft | Top Feet | Bottom Feet | Remarks<br>Including indication of all fresh and salt water, coal, oil and gas |
|-------------------|-------|--------------|----------|-------------|--|
| Red Rock          |       |              | 200      | 217         |  |
| Sand              |       |              | 217      | 227         |  |
| Slate             |       |              | 227      | 240         |  |
| Sand              |       |              | 255      | 258         |  |
| Slate             |       |              | 258      | 261         |  |
| Sand              |       |              | 261      | 285         |  |
| Slate             |       |              | 285      | 358         |  |
| Sand              |       |              | 358      | 370         |  |
| Red Rock          |       |              | 370      | 410         |  |
| Slate             |       |              | 410      | 450         |  |
| Sand              |       |              | 450      | 537         |  |
| Slate             |       |              | 537      | 570         |  |
| Red Rock          |       |              | 570      | 600         |  |
| Slate             |       |              | 600      | 690         |  |
| Red Rock          |       |              | 690      | 790         |  |
| Sand              |       |              | 790      | 803         |  |
| Slate             |       |              | 803      | 808         |  |
| Red Rock          |       |              | 808      | 833         |  |
| Slate             |       |              | 833      | 893         |  |
| Sand              |       |              | 893      | 909         |  |
| Red Rock          |       |              | 909      | 936         |  |
| Slate             |       |              | 936      | 965         |  |
| Red Rock/Slate    |       |              | 965      | 983         |  |
| Slate             |       |              | 983      | 1016        |  |
| Sand              |       |              | 1016     | 1038        |  |
| Slate             |       |              | 1038     | 1060        |  |
| Red Rock          |       |              | 1060     | 1072        |  |
| Sand              |       |              | 1072     | 1098        |  |
| Slate             |       |              | 1098     | 1129        |  |
| Sand & Slate      |       |              | 1129     | 1153        |  |
| Sand              |       |              | 1153     | 1204        |  |
| Slate             |       |              | 1204     | 1321        |  |
| Sand              |       |              | 1321     | 1335        |  |
| Slate             |       |              | 1335     | 1438        |  |
| Sand              |       |              | 1438     | 1460        |  |
| Slate             |       |              | 1460     | 1476        |  |
| Sand              |       |              | 1476     | 1528        |  |
| Slate             |       |              | 1528     | 1671        |  |
| Sand              |       |              | 1671     | 1676        |  |
| Slate             |       |              | 1676     | 1682        |  |
| Sand              |       |              | 1682     | 1694        |  |
| Slate             |       |              | 1694     | 1714        |  |
| Sand              |       |              | 1714     | 1725        |  |
| Slate             |       |              | 1725     | 1727        |  |
| Sand <i>maxon</i> |       |              | 1727     | 1742        |  |
| Slate             |       |              | 1742     | 1780        |  |
| S. Lime           |       |              | 1780     | 1787        |  |
| Slate             |       |              | 1787     | 1803        |  |
| S. Lime           |       |              | 1803     | 1906        |  |
| Jun Sand          |       |              | 1906     | 1984        |  |
| Slate             |       |              | 1984     | 1988        |  |
| Sand              |       |              | 1988     | 2014        |  |
| Slate             |       |              | 2014     | 2025        |  |
| Sand              |       |              | 2025     | 2050        |  |

T.D.  
Russell Johnson

*Russell Johnson Jr.*  
Owner

... ..  
... ..  
... ..  
... ..

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. H-655

API Well No. 47-085-4224 State County Permit

WELL TYPE: Oil / Gas x / (If "Gas", Production x / Underground storage / Deep / Shallow x /)

LOCATION: Elevation: 924' Watershed: Third Run District: Grant County: Ritchie Quadrangle: Harrisville, WV 7 1/2'

WELL OPERATOR Russell Johnson Address Oklahoma City, OK 73102

DESIGNATED AGENT Warren R. Haught Address Smithville, WV 26178

OIL & GAS ROYALTY OWNER Cordelia Riddle Hrs. et als Address Harrisville, WV

COAL OPERATOR None Address

Acreage 51 3/4

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Wayne Elder Address Harrisville, WV 26362

Name None Address

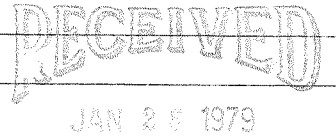
Acreage 51 3/4

Name Address

FIELD SALE (IF MADE) TO: Name None Address

COAL LESSEE WITH DECLARATION ON RECORD: Name None Address

OIL & GAS INSPECTOR TO BE NOTIFIED Name Kenneth Paul Goodnight Address Smithville, WV 26178 304-477-3660



OIL & GAS DIVISION DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract x / dated March 16, 1978, to the undersigned well operator from Ritchie Petroleum Corp.

[If said deed, lease, or other contract has been recorded:] Recorded on, 19, in the office of the Clerk of the County Commission of Ritchie County, West Virginia, in Lease Book 125 at page 7. A permit is requested as follows:

PROPOSED WORK: Drill x / Drill deeper / Redrill / Fracture or stimulate / Plug off old formation / Perforate new formation / Other physical change in well (specify)

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 1615 WASHINGTON STREET EAST CHARLESTON, WV 25311 TELEPHONE: (304) 348-3092

RUSSELL JOHNSON Well Operator

By Warren R. Haught Its Agent

BLANKET BOND

08-78]

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DILLING CONTRACTOR (IF KNOWN) Glenn L. Haight & Sons  
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Big Injun

Estimated depth of completed well, 2100 feet Rotary X / Cable tools      /  
Approximate water strata depths: Fresh, 75 feet; salt,      feet.  
Approximate coal seam depths: none Is coal being mined in the area? Yes      / No X

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             |                |       |               |     |      |                   |              |                                      | Kinds         |
| Fresh water           | 8 5/8          | K-55  | 20.1          | b.  | x    | 200'              | 200'         | 75 sacks                             |               |
| Coal                  |                |       |               |     |      |                   |              |                                      | Sizes         |
| Intermediate          |                |       |               |     |      |                   |              |                                      |               |
| Production            | 4 1/2          | J-55  | 10.50         |     | x    | 2100              | 2100         | 100 sacks                            | Depths set    |
| Tubing                |                |       |               |     |      |                   |              |                                      |               |
| Liners                |                |       |               |     |      |                   |              |                                      | Perforations: |
|                       |                |       |               |     |      |                   |              |                                      | Top Bottom    |

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

**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 9-26-79.

  
Deputy Director - Oil & Gas Division

completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator      / owner      / lessee      / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:     , 19     

By       
Its