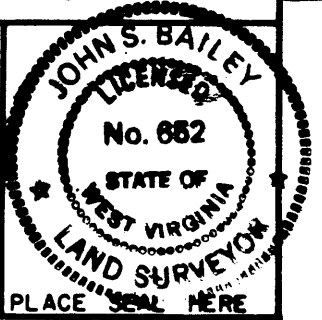


FILE NO. MSES84-553
 DRAWN BY PJD
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION INT. CO. RT. 1/6 & PVT. RD. 600' SE OF LOC. - EL. 730

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) John S. Bailey
 R.P.E. _____ L.L.S. 652



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



Department of Mines
 Oil & Gas Division

DATE NOVEMBER 7, 1984
 OPERATOR'S WELL NO. CNGD 1502
 API WELL NO. 47-107-1343
 STATE COUNTY PERMIT

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X)
 LOCATION: ELEVATION 734.1' WATER SHED BULL CREEK
 DISTRICT WALKER COUNTY WOOD
 QUADRANGLE WILLOW ISLAND 7.5' 1957 (1976) Marquette 15' SE9
 SURFACE OWNER ERNIE C. & LAURA S. DONAHUE ACREAGE 60 AC. 144 P.
 OIL & GAS ROYALTY OWNER ERNIE C. & LAURA S. DONAHUE, ET AL LEASE ACREAGE 103.62
 LEASE NO. DV-615
 PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 3700'
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER ADDRESS RT. 2, BOX 698
142 PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

JAN 14 1985

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IV-35 (Rev 8-81)

APR 22 1985

OIL & GAS DIV. DEPT. OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date April 4, 1985 Operator's Well No. CNGD WN 1502 Farm Smith API No. 47 - 107 - 1343

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

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

LOCATION: Elevation: 734.1 Watershed Bull Creek District: Walker County Wood Quadrangle Willow Island 7.5

COMPANY CNG DEVELOPMENT COMPANY ADDRESS 1 Park Ridge Center, P.O. Box 15746 Pittsburgh, PA 15244 DESIGNATED AGENT Gary A. Nicholas ADDRESS Rt. 2 Box 698 Bridgeport, WV 26330 SURFACE OWNER Ernie C & Laura Donahue ADDRESS 2 Donahue Cr., Culloden, WV 25510 MINERAL RIGHTS OWNER Ernie C & Laura Donahue ADDRESS 2 Donahue Cr., Culloden, WV 25510 OIL AND GAS INSPECTOR FOR THIS WORK Glen Robinson ADDRESS Rt. 1 #6, Mt. Pleasants Est. Minerwells, WV 26150 PERMIT ISSUED 1-3-85 DRILLING COMMENCED 2-8-85 DRILLING COMPLETED 2-14-85 IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Table with 4 columns: Casing Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 11-3/4", 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3700 feet Depth of completed well 3752 feet Rotary x / Cable Tools Water strata depth: Fresh 980 feet; Salt Coal seam depths: 670 - 685, 680 - 685, 1095 - 1100 Is coal being mined in the area? No

OPEN FLOW DATA Producing formation Devonian Shale Pay zone depth 2991 - 3333 feet Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d Final open flow (est) 50 Mcf/d Final open flow Bbl/d Time of open flow between initial and final tests hours Static rock pressure psig (surface measurement) after hours shut in (If applicable due to multiple completion--)

MAY 06 1985

(Continue on reverse side)

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

Perfco Perforated Devonian Shale ^{Huron} 2991-3333, 22 holes (.39); ^{Up. Dev. undiff.} 2152-2298, 24 holes (.39)
 Halliburton Frac 1st Stage - Break 2650, 13 pumps, 90,000 SCF/min, Avg. psi 3650,
 500 gal MOD 202, ISIP 2050, 5 min 1950, 800,000 Total Nitrogen (SCF)
 2nd Stage - Break 3000, 13 pumps, 90,000 SCF/min, Avg. psi 3550,
 500 gal MOD 202, ISIP 2100, 1 min 2000, 800,000 Total Nitrogen (SCF)

WELL LOG

| FORMATION | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS |
|--------------|-------|--------------|----------|-------------|---|
| | | | | | Including indication of all fresh and salt water, coal, oil and gas |
| Clay | | | 0 | 3 | Coal Seams 670 - 675 |
| Gravel | | | 3 | 6 | 680 - 685 |
| Sd, Sh, RR | | | 6 | 670 | 1095 - 1100 |
| Coal | | | 670 | 675 | |
| Shale | | | 675 | 680 | |
| Coal | | | 680 | 685 | |
| Sand & Shale | | | 685 | 730 | |
| Lime & Shale | | | 730 | 750 | |
| Sand & Shale | | | 750 | 1095 | |
| Coal | | | 1095 | 1100 | |
| Shale | | | 1100 | 1114 | |
| Big Lime | | | 1114 | 1325 | |
| Sand & Shale | | | 1325 | 3752 | |
| Big Lime | | | 1122 | 1200 | |
| Big Injun | | | 1200 | 1360 | |
| Berea | | | 1756 | 1760 | |
| Shale | | | 1760 | | |

Java @ TD ← TD 3752-

(Attach separate sheets as necessary)

3752
 734
 3018
 28
 218 28
 35

CNG DEVELOPMENT COMPANY
 Well Operator

By: [Signature]

Date: April 4, 1985

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 ... encountered in the drilling of a well"

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DEC 10 1984



1) Date: December 4, 1984
2) Operator's Well No. 1502
3) API Well No. 47 - 107 - 1343
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
APPLICATION FOR A WELL WORK PERMIT

OIL & GAS DIVISION

DEPT. OF MINES

- WELL TYPE: Gas
B (If "Gas", Production / Underground storage / Deep / Shallow)
5) LOCATION: Elevation: 734.1, Watershed: Bull Creek, District: Walker, County: Wood, Quadrangle: Willow Island 7.5
6) WELL OPERATOR: CNG Development Co., Address: c/o Paul W. Garrett, P.O. Box 15746 Pittsburgh, PA 15244
7) DESIGNATED AGENT: Mr. Gary Nicholas, Address: Crosswinds Corporate Park Rt. 2, Box 698, Bridgeport, WV 26330
8) OIL & GAS INSPECTOR TO BE NOTIFIED: Name: Glen P. Robinson, Address: Rt. 1, #6, Mt. Pleasant Estate Mineralwells, WV 26150
9) DRILLING CONTRACTOR: Name: Sam Jack Drilling Co., Address: P.O. Box 48 Buckhannon, WV 26201
10) PROPOSED WELL WORK: Drill X / Drill deeper / Redrill / Stimulate X / Plug off old formation / Perforate new formation / Other physical change in well (specify)
11) GEOLOGICAL TARGET FORMATION: Devonian Shale
12) Estimated depth of completed well, 3700 feet
13) Approximate trata depths: Fresh, - feet; salt, - feet.
14) Approximate coal seam depths: - Is coal being mined in the area? Yes / No X
15) CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft., New, Used), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), PACKERS (Kinds, Sizes, Depths set, Perforations: Top, Bottom)

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-107-1343 Date January 3, 1985

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof. Permit expires January 3, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Table with columns: Bond, Agent, Plat, Casing, Fee. Values: 28, mt, MH, MH, 004.987

Margaret J. Hesse
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

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

File