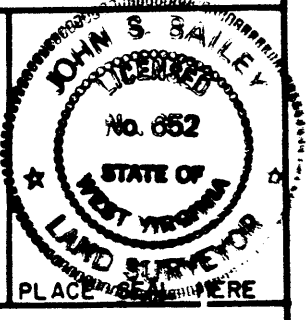


FILE NO. MSES 84-406
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION RT. 2072 CROSSING BULL CREEK BM EL. 755'

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 MAY 24, 19 84
 OPERATOR'S WELL NO. CNGD 529
 API WELL NO. _____
47 - 107 - 1311
 STATE COUNTY PERMIT

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X)
 LOCATION: ELEVATION 808.10' WATER SHED LAUREL FORK
 DISTRICT WALKER COUNTY WOOD
 QUADRANGLE WILLOW ISLAND Marietta 15' 56g
 SURFACE OWNER EDNA L. NEWLAND ROGERS ACREAGE 55
 OIL & GAS ROYALTY OWNER EDNA L. ROGERS LEASE ACREAGE 55
 LEASE NO. _____
 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 4500'
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER PITTSBURGH, PA. 15219 ADDRESS CROSSWIND CORPORATE PARK BRIDGEPORT, W.V. 26330

JUL 9 1984

IV-35
(Rev 8-81)

RECEIVED
SEP 10 1984



State of West Virginia
Department of Mines
Oil and Gas Division

Date August 29, 1984
Operator's
Well No. CNGD 529
Farm Rodgers
API No. 47 - 107 - 1311

OIL & GAS DIVISION
DEPT. OF MINES

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: 808.10 Watershed Laurel Fork (LK2F)
District: Walker County Wood Quadrangle Willow Island

COMPANY CNG Development Company
ADDRESS P.O. Box 15746, Pittsburgh, PA 15275
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698, Bridgeport, WV 26330
SURFACE OWNER Edna L. Newland Rogers
ADDRESS Rt. 3 Box 228, Parkersburg, WV 26101
MINERAL RIGHTS OWNER Edna L. Rogers
ADDRESS Rt. 3 Box 228, Parkersburg, WV 26101
OIL AND GAS INSPECTOR FOR THIS WORK
Glen P. Robinson ADDRESS Rt. 1 Box 6 Mt. Pleasant Minerwells, WV 26150
PERMIT ISSUED 7-5-84
DRILLING COMMENCED 7-18-84
DRILLING COMPLETED 7-24-84

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
11 3/4 " 11 3/4"	254	254	To surf
9 5/8			
8 5/8	954	954	To surf
7			
5 1/2			
4 1/2	3770	3770	370 sks
3			
2			
Liners used			

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

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 4500 feet
Depth of completed well 3824 feet Rotary X / Cable Tools
Water strata depth: Fresh 100 feet; Salt feet
Coal seam depths: 95-98 200 370 feet
Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation 4 stages Shale Pay zone depth 1055 - 1132 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow est. 350 Mcf/d Final open flow est. 15 Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure est. 800 psig (surface measurement) after hours shut in
(If applicable due to multiple completion--)
Second producing formation Pay zone depth feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow Mcf/d Oil: 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

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
 Perfco Perf. Shale 3076 - 3205; 18 holes (.39), 2404 - 2477, 18 holes (.39), 2011 - 2100,
 8 holes (.39), 1055 - 1132, 16 holes (.39)
 alliburton Frac 1st stage - Break 2270, 9 pumper units, SCF/min 71,000, Avg. PSI 2900, 1000 gals
 OD 202 Acid, ISIP 2150, 5/min 1970, SCFN₂ 600,000. 2nd Stage - Break 1650, 8 pumper units,
 CF/min 64,000, Avg. PSI 2550, 500 gal MOD 202 Acid, ISIP 1770, 5/min 1590, SCFN₂ 800,000
 rd Stage - Break 2800, 8 pumper units, SCF/min 66,000, Avg. PSI 2500, 500 gal MOD 202 Acid,
 SIP 1700, 5/min 1570, SCFN₂ 800,000. 4th Stage - Break 2000, 8 pumper units, SCF/min 64,000,
 vg. PSI 2250, 500 gal MOD 202 Acid, ISIP 1240, 5/min 1150, SCFN₂ 800,000.

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	10	1" stream water @ 45'
Sh, Sd			10	95	3" stream water @ 100'
Coal			95	98	1" stream water @ 200'
Sand			98	145	Hole damp @ 370'
Coal			145	150	
Sh, Sd			150	380	
Big Lime			380	490	
Injun Sand			490	565	
Sh, Sd			565	3824	
<u>LOG TOPS</u>					
Berea			1000	1008	
Lower Huron			-	3380	

(Attach separate sheets as necessary)

CNG Development Company

Well Operator

By: Gary A. [Signature]

Date: August 29, 1984

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
 (and), encountered in the drilling of a well."

RECEIVED



1) Date: June 14, 19 84
2) Operator's Well No. 529
3) API Well No. 47 - 107 - 1311
State County Permit

JUN 19 1984

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

APPLICATION FOR A WELL WORK PERMIT

OIL & GAS DIVISION

DEPT. OF MINES

- 4) WELL TYPE: Oil X / Gas
5) LOCATION: Elevation: 808.10', Watershed: Laurel Fork (LK2F), District: Walker, County: Wood, Quadrangle: Willow Island
6) WELL OPERATOR: CNG Development Company, Address: c/o Paul W. Garrett, P.O. Box 15746, Pittsburgh, PA 15244
7) DESIGNATED AGENT: Mr. Gary Nicholas, Address: Crosswind Corporate Park, Rt. 2, Box 698, Bridgeport, WV 26330
8) OIL & GAS INSPECTOR TO BE NOTIFIED: Name: Mr. Glen P. Robinson, Address: Rt. 1, 6 Mt. Pleasant Estate, Mineralwells, WV 26150
9) DRILLING CONTRACTOR: Name: Sam Jack Drilling Company, 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: 4200 feet
13) Approximate trata depths: Fresh, 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 47-107-1311 Date July 5, 19 84

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 July 5, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Table with columns: Bond, Agent, Plat, Casing, Fee. Values: Blanket, MH, MN, MN, 002/925

Signature of Administrator, Office of Oil and Gas

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

File

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