



FILE NO. F.B.1
 DRAWING NO. 85005
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1/2500
 PROVEN SOURCE OF ELEVATION U.S.G.S. BM. Copper Plug in bridge - Mouth Rock Lick.

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) Thomas J. Kule
 R. P. E. 3698 L. L. S. _____

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FORM IV-6
(8-78)



Department of Mines
Oil & Gas Division

DATE FEBRUARY 6, 19 85
 OPERATOR'S WELL NO. CNG #1632
 API WELL NO. _____

47 - 005 - 1458
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS", PRODUCTION X STORAGE ___ DEEP ___ SHALLOW ___)

LOCATION: ELEVATION 2570.1 WATER SHED POND FORK
 DISTRICT CROOK 1 COUNTY BOONE
 QUADRANGLE LORADO 7.5' 445 Bald Knob 006 SCS

SURFACE OWNER CHARLESTON NATIONAL BANK ACREAGE 23,649.70
 OIL & GAS ROYALTY OWNER CHARLESTON NATIONAL BANK LEASE ACREAGE 23,649.70
 LEASE NO. 80.210

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 WEIR ESTIMATED DEPTH 4588'

WELL OPERATOR CNG DEVELOPMENT CO. DESIGNATED AGENT GARY NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER 142 ADDRESS CROSSWIND CORPORATE PARK R#3 Box 698
PITTSBURG, PA. 15244 BRIDGEPORT, W.Va. 26330
412/429-2390 PHONE: 304/623-8134

JUN 03 1985



Date July 17, 1985
Operator's
Well No. CNGD WN 1632
Farm Charleston Nat'l Bank
API No. 47 - 005 - 1458

State of West Virginia
Department of Mines
Oil and Gas Division

*Wrong
pct plot
= 2570 GL
p.p.c 4/85*

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 2750 Watershed Pond Fork
District: Crook County Boone Quadrangle Lorado 7.5

COMPANY CNG Development Company
ADDRESS P. O. Box 15746
Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698
Bridgeport, WV 26330
SURFACE OWNER Charleston Nat'l Bank
ADDRESS Trust Department, P. O. Box 1113
Charleston, WV 25325
MINERAL RIGHTS OWNER Charleston Nat'l Bank
ADDRESS Trust Department, P. O. Box 1113
Charleston, WV 25325
OIL AND GAS INSPECTOR FOR THIS WORK
Jerry Halcomb ADDRESS Rt. 1 Box 28
Hamlin, WV 25523
PERMIT ISSUED May 29, 1985
DRILLING COMMENCED June 3, 1985
DRILLING COMPLETED June 18, 1985
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size <u>20-16'</u> Cond.	19	19	To Surf
<u>11-3/4"</u> <u>12-1/2"</u>	1102	1102	To Surf
<u>9 5/8</u>			
<u>8 5/8</u>	2902	2902	To Surf
<u>7</u>			
<u>5 1/2</u>			
<u>4 1/2</u>	4542	4542	200 sks
<u>3</u>			
<u>2</u>			
Liners used			

GEOLOGICAL TARGET FORMATION Weir Depth 4588 feet

Depth of completed well ~~2920~~ 4571 feet Rotary x / Cable Tools

Water strata depth: Fresh 111 feet; Salt feet

Coal seam depths: 127 - 128 Is coal being mined in the area? No
709 - 711
775 - 780
1219 - 1223
1675 - 1676

OPEN FLOW DATA
Producing formation Berea Big Lime Pay zone depth 4345 - 48
3807 - 20 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow 628 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 520 psig (surface measurement) after 1 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

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

Gearhart Perforated Berea - 4345-48, 8 holes, Select Fire

Big Lime - 3807-10, 6 holes

3818-20, 4 holes, Hollow Carrier

Dowell pumped 500 gal 15% HCL, followed immediately by pad then sand, Broke at 600# - increased to 1200# @ 3#/gal, 20 BPM hydraulic line broke on blender, had to shut down. Put away 45,000# 20/40 Sand, J-266-450g., U-42-30g., M-17-17g., L-53-40g., F-75-40g. Dowell Frac Big Lime - Pumped 500 gal 15% HCL, 2200 gal Gel Acid, 500 gal 15% HCL, Dropped 6 balls, 2000 gals Gel Acid, Pumped 61 BBL Flush - Ran 180,000 N2 thru job, Max Tr.Pres. 2800#, Avg 2450, Immed. Shut In 1800#, 15 min Shut In 1600#, Avg 4 BPM thru job - HCL 15% - 500 gal, J-425 - 60 gal, J-144 - 6 gal, HCL 28% - 2000 gal, F-78 - 8 gal, A-250 - 6 gals, U-42 - 15 gal.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sub Base			0	10	1/4" stream @ 111'
Sand			10	127	
Coal			127	128	Coal 127 - 128
Sand & Shale			128	523	523 - 528
Coal			523	528	709 - 711
Sand			528	709	775 - 780
Coal			709	711	
Sand & Shale			711	775	Open Mine 989 - 995
Coal & Shale			775	780	Coal 1219 - 1223
Sand & Shale			780	989	1675 - 1676
Open Mine			989	995	
Sand & Shale			995	1219	
Coal			1219	1223	
Sand & Shale			1223	1675	
Coal			1675	1676	
Sand & Shale			1676	3560	
Little Lime			3560	3677	
Lime			3677	4025	
Injun			4025	4709	Berea @ 70
<u>LOG TOPS</u> ✓					
Avis Lime			3112	3148	
U. Maxton			3262	3291	
Maxton			3325	3411	
L. Maxton			3562	3655	
L. Lime			3663	3733	
B. Lime			3748	4037	
Weir			4337	4350	
Berea			4561	4571	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By: *Mark D. Miller*

Date: July 17, 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 coal, encountered in the drilling of a well."

FORM 14-2(B)
(Cover)

FILE COPY



1) Date: May 1, 1985, 19____
 2) Operator's Well No. 1632
 3) API Well No. 47 -005-1458
 State County Permit

MAY 08 1985

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

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 2750 Watershed: Pond Fork
 District: Crook County: Boone Quadrangle: Lorado 7.5
- 6) WELL OPERATOR CNG Development Company
 Address c/o Paul W. Garrett, P.O. Box 15746
Pittsburgh, PA 15244
- 7) DESIGNATED AGENT Gary Nicholas
 Address Crosswind Corporate Park
Rt. 2, Box 698, Bridgeport, WV 26330
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Jerry Halcomb
 Address Rural Rt. #1, Box 28
Hamlin, WV 25523
- 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, Berea
- 12) Estimated depth of completed well, 4588 feet
- 13) Approximate trrata depths: Fresh, 1536 feet; salt, _____ feet.
- 14) Approximate coal seam depths: 537, 845, 1055 Is coal being mined in the area? Yes _____ / No - /

15) 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	16					40	40	To Surface	By Rule 15.05
Coal									Sizes
Intermediate	8-5/8	K-55	24	X		2900	2900	To Surface	By Rule 15.05
Production	4-1/2	J-55	10.5	X		4588	4588	200-400	Depths set
Tubing	1-1/2	CN-55	2.75	X					By Rule 15.01
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-005-1458

May 29 19 85
 Date

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 May 29, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: -	Plat:	Casing	Fee
<u>28</u>	<u>MW</u>	<u>MU</u>	<u>MW</u>	<u>8187</u>

Margaret J. Hass
 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.