



FILE NO. MSES 85-599
 DRAWN BY SARC
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION JCT. CO. RT. 15/5 & DR. 1800' SE LOCATION; ELEV. 1136.1'

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 A. Bailey
 R. P. E. L. U. S. 652



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

DATE JANUARY 10 19 85
 OPERATOR'S WELL NO. CNGD 1615
 API WELL NO. 47-017-3429
 STATE CO COUNTY PERMIT

Department of Mines
 Oil & Gas Division

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS", PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1254.33' WATER SHED TRAUGH FORK
 DISTRICT GREENBRIER 4 COUNTY DODDRIDGE 017
 QUADRANGLE BIG ISAAC, WV 7.5' Vealis 15' NE3 123
 SURFACE OWNER LOUIS W. CURKENDALL 352 ACREAGE 34.733*
 OIL & GAS ROYALTY OWNER FRANCIS M. SADLER HEIRS LEASE ACREAGE 54
 LEASE NO. 88173

PROPOSED WORK: DRILL 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 ALEXANDER 14 ESTIMATED DEPTH 5575'
 WELL OPERATOR CNG DEVELOPMENT CO. DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER ADDRESS RT. 2, BOX 698 BRIDGEPORT, WV 26330

APR 22 1985
1010 Meathouse Fork, Bristol (146)

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

Perfo ran Corrllog & Perf. Alexander 5438-5443, 7 holes and 5420-5423, 3 holes (.39) HSC
 Select Fire Total 10 holes Halliburton Foam Frac (75Q) Alexander - Break 2450,
 TPSI 3300, Ave Rate 20 BPM, ISI 2200, used 500 gals 15% FE Acid & 45,000# 20/40 Sand,
 475,000 SCF N2. Perfo Perf. Benson 5106-5108, 3 holes; 5101-5104, 4 holes;
 5099, 1 hole; 5097, 1 hole; 5096, 1 hole, Total 10 holes (.39) HSC Select Fire
 Halliburton Foam Frac (75Q) Benson - Break 3700, Avg TPSI 3200, Ave Rate 20 BPM,
 ISI 2600, used 500 gals 15% FE Acid & 45,000# 20/40 Sand & 490,000 SCF N2.
 Perfo Perf. Speechley 3791 - 3793, 4 holes; 3693 - 3696, 6 holes; Total 10 holes
 (.39) HSC Select Fire. Halliburton Foam Frac (75Q) Speechley - Break 2300, Avg TPSI 2900,
 Ave Rate 20 BPM, ISI 1550, used 500 gals 15% FE Acid, 40,000# 20/40 Sand & 400,000 SCF N2

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Top Soil, Sand & Shale			0	270	Water @ 105' - 1"
Coal			270	275	480' - 1/2"
Sand, Shale & RR			275	2140	
L-Lime			2140	2150	
Sand & Shale			2150	2180	
B-Lime			2180	2240	
Sand & Shale			2240	5575	Alex @ TD
				2332	
			2388	2495	
			2560	2586	
			2586	2622	
			3380	3492	
			3782	3803	
			4213	4374	
			4644	4746	
			5090	5150	

LOG TOPS ✓

Injun
 Well
 Sunbury
 Berea
 Warren
 Speechley
 Balltown
 Bradford
 Riley

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY
 Well Operator

By:  Date: October 16, 1985

Note: Regulation 8.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic
 detailed geological record of all formations, including
 well, encountered in the drilling of a well."

FILE COPY
APPROVED

MAR 26 1985

- 1) Date: March 18, 19 85
 2) Operator's Well No. 1615
 3) API Well No. 47 - 017 - 3429 State County Permit

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

OIL & GAS DIVISION APPLICATION FOR A WELL WORK PERMIT

4) WELL TYPE: Oil Gas Production Underground storage Waterbed Triumph Fork Deep Shallow

5) LOCATION: Elevation: 1254.33 District: Greenbrier County: Doddridge Quadrangle: Big Isaac

6) WELL OPERATOR: CNG Development Company 7) DESIGNATED AGENT: Gary Nicholas
 Address: c/o Paul W. Garrett, P.O. Box 15746 Address: Crosswind Corporate Park
Pittsburgh, PA 15244 Rt. 2, Box 698, Bridgeport, WV 26330

8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name: Mike Underwood 9) DRILLING CONTRACTOR:
 Address: Rt. 2, Box 114 Name: Sam Jack Drilling Co.
Salem, WV 26426 Address: P.O. Box 48
Buckhannon, WV 26201

10) PROPOSED WELL WORK: Drill deeper Redrill Stimulate
 Plug off old formation Perforate new formation
 Other physical change in well (specify): Alexander

11) GEOLOGICAL TARGET FORMATION, Alexander
 12) Estimated depth of completed well, 575 feet
 13) Approximate true depths: Fresh, - feet; salt, - feet.
 14) Approximate coal seam depths: - 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.	Left in well		
Conductor						
Fresh water	1 1/2 - 3/4	H-40	42	40	To Surface	Kind By Rule 15.05
Coal						Sizes
Intermediate	8-5/8	X-42	23	1450	To Surface	By Rule 15.05
Production	4-1/2	J-55	10.5	5575	200-400	Depths set
Tubing	1-1/2	CN-55	2.75			By rule 15.01
Liners						Perforations:
						Top
						Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3429

Date April 12, 19 85

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 April 12, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fec
<u>28</u>	<u>SW</u>	<u>MH</u>	<u>MW</u>	<u>7556</u>

Margaret J. Lase
 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

