

LS 12-26-85

WELL REFERENCE TIES  
CNGD 1627 TO 10" R.O. N 41° 44' E 210.60'  
CNGD 1627 TO 13" R.O. S 65° 17' E 98.60'

R.L. MOATS  
87.28 AC.

C. HUGHES  
101.30 AC.

*James*  
*10/16/85*

PROPOSED WELL

PROPOSED WELL  
CNGD 1627  
EL. 1144.40

D.L. HERRON  
120 AC.

NORTH

7.5'

*ok R.A. 11/7/85*

*2.655*  
*0.340*

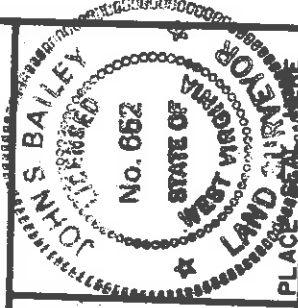
FILE NO. MSES 85-681  
DRAWN BY RVS - PAT  
SCALE 1"=500'  
MINIMUM DEGREE OF ACCURACY 1 IN 200  
PROVEN SOURCE OF ELEVATION EL. 974 JCT. OF CO. RT. 462  
8 46/3

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

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) *D.L. Herron* R. P. E. 652 A. S. 652



Department of Mines  
Oil & Gas Division



DATE SEPTEMBER 23, 19 85  
OPERATOR'S WELL NO. CNGD 1627  
API WELL NO. 47-017-3483-F

DODD 3483

STATE WEST VIRGINIA COUNTY DODD

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  SHALLOW   
(IF "GAS", PRODUCTION  STORAGE  DEEP   
LOCATION: ELEVATION 1144.40 WATER SHED INDIAN FORK TRIBUTARY OF BUCKEYE CREEK  
DISTRICT GREENBRIER COUNTY DODDRIDGE  
SURFACE OWNER DANIEL L. HERRON NEAREST TOWN ZINNIA  
OIL & GAS ROYALTY OWNER CONSOLIDATED GAS TRANS. / ORA WHITE ACREAGE 120 LEASE ACREAGE 70  
LEASE NO. 23134

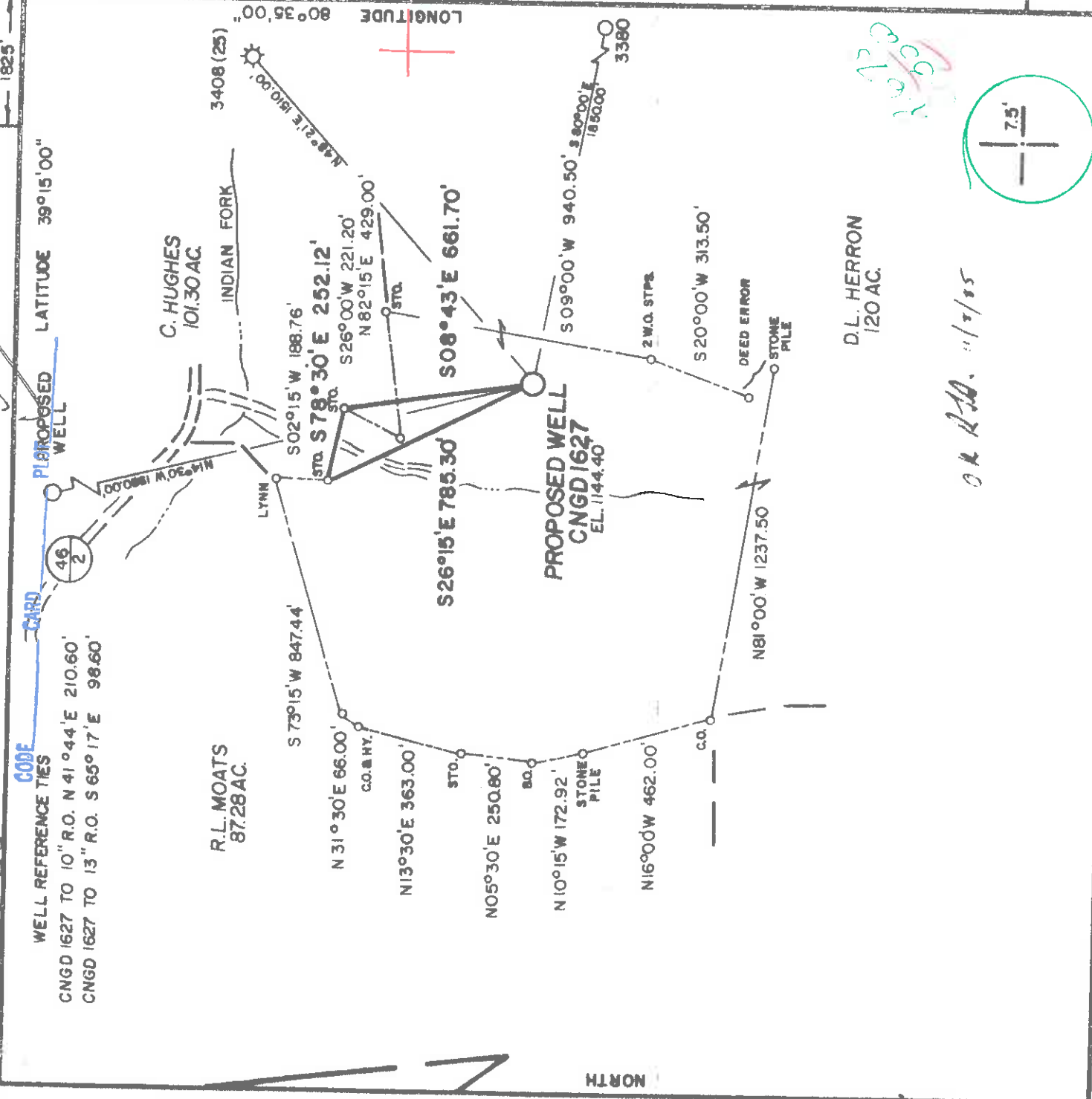
PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER  PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG  ESTIMATED DEPTH 5450'  
TARGET FORMATION ALEXANDER ESTIMATED AGENT Rodney J. Biggs

CNG Producing Co.  
Rt. 2, Box 698-Crosswind Corp. Park  
Bridgeport, wva. 26330-0698  
PREPARED BY 1170 PH: 304-623-8840

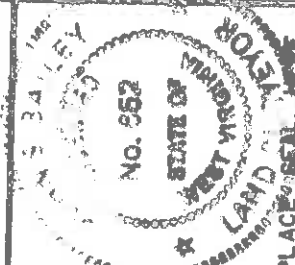
*6-6 meathouse Fork - Bristol (14b)*

45 12-26-85



FILE NO. MSES 85-681  
 DRAWN BY RVS - PAT  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 IN 200  
 PROVEN SOURCE OF ELEVATION EL. 974 JCT. OF CO. RT. 46/2 B. 46/3

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) D. L. Herron R.P.E. 652



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

DATE SEPTEMBER 23, 19 85  
 OPERATOR'S WELL NO. CNGD 1627  
 API WELL NO. 47-017-3483  
 STATE WEST VIRGINIA COUNTY BRISTOL PERMIT

Department of Mines  
 Oil & Gas Division

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1144.40 WATER SHED INDIAN FORK TRIBUTARY OF BUCKEYE CREEK  
 DISTRICT GREENBRIER COUNTY DOODRIDGE  
 QUADRANGLE BIG SAAC 7.5' 252 123 NEAREST TOWN ZINNIA  
 SURFACE OWNER DANIEL L. HERRON ACRES 120 LEASE ACRES 70  
 OIL & GAS ROYALTY OWNER CONSOLIDATED GAS TRANS./ ORA WHITE LEASE NO. 23134  
 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 6-6 Meathouse Fork (146)  
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5450' Bristol 1-6-86  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS ONE PARK RIDGE CENTER ADDRESS CROSSWIND CORPORATE PARK  
P.O. BOX 15746 ADDRESS ROUTE 2, BOX 698  
PITTSBURG, PA. 15219 ADDRESS BRIDGEPORT, W.V. 26330

Department of Mines  
 Oil & Gas Division

Department of Mines  
 Oil & Gas Division



JAN 17 1996

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

API # 47- 17-03483 F  
13-Oct-95

Permitting  
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: HERRON, DANIEL L.

Operator Well No.: CNGP 1627W

LOCATION: Elevation: 1,144.40 Quadrangle: BIG ISAAC

District: GREENBRIER  
Latitude: 13925 Feet South of 39 Deg. 15Min. 30 Sec.  
Longitude 1825 Feet West of 80 Deg. 35 Min. 0 Sec.

County: DODDRIDGE

Company: CNG PRODUCING COMPANY  
ROUTE 2, BOX 698  
BRIDGEPORT, WV 26330-0698

Agent: RODNEY J. BIGGS

Inspector: MIKE UNDERWOOD  
Permit Issued: 10/16/95  
Well work Commenced: 10/25/95  
Well work Completed: 11/10/95  
Verbal Plugging  
Permission granted on: \_\_\_\_\_ Rig  
Rotary Cable  
Total Depth (feet) 5360'  
Fresh water depths (ft) \_\_\_\_\_

Salt water depths (ft) \_\_\_\_\_

Is coal being mined in area (Y/N)? \_\_\_\_\_  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Re-Ran 1.5" Tbg.	5321'	5321'	

OPEN FLOW DATA

Speechley  
Warren

Producing formation: Gordon

Gas: Initial open flow N/A MCF/d Oil: MCF/d Initial open flow N/A Bbl/d  
Final open flow \*198 MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests 4 Hours  
Static rock pressure 150 psig (surface pressure) after 12 Hours

\* Commingle with existing production

Second producing formation

Gas: Initial open flow MCF/d Oil: MCF/d Initial open flow Bbl/d  
Final open flow MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

*Rodney J. Biggs*

For: CNG PRODUCING COMPANY

BY: Rodney J. Biggs, Production Manager, Appalachian Region  
Date: 01/15/96

NR 12-96

10/17/95 - Pulled 1.5" Tbg

10/25/95 - Allegheny Perforated:

Speechley, 3615-3720, 28 holes  
Warren, 3449-3469, 23 holes  
Gordon, 2802-2850, 24 holes

10/26/95 - Nowasco water fraced:

	Speechley	Warren	Gordon
Form.			
Plug	3740	3478	2860
Total Fluid	563	463	522
Total sand	36,000	32,000	25,000
Total Rate	28	28	22
Avg. Press.	1850	2000	2150
Total Acid	1000	500	1000

11/9/95 - Re-Run 1.5" Tbg.

11/10/95 - T.B.I.L.

**RECEIVED**  
SEP 22 1986

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY



State of West Virginia

Department of Mines  
Oil and Gas Division

Date September 11, 1986  
Operator's Well No. 1627  
Farm Freeman  
API No. 47-017-3483

WELL OPERATOR'S REPORT  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1144.4 Watershed Indian Fork  
District: Greenbrier County Doddridge Quadrangle Big Isaac

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 Daniel L. Herron  
ADDRESS Rt. 1 Box 117-A  
Mt. Clare, WV 26408  
MINERAL RIGHTS OWNER GGTC/Ora White  
ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK  
Mike Underwood ADDRESS Rt. 2, Box 114  
Salem, WV 26426  
PERMIT ISSUED December 27, 1985  
DRILLING COMMENCED Aug. 5, 1986  
DRILLING COMPLETED Aug. 11, 1986

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

Casing Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cord.			
13-10"	236	236	To Surf.
9 5/8			
8 5/8	1641	1641	To Surf.
7			
5 1/2			
4 1/2	5519	5519	530 sks
3			
2 1-1/4	5321	5321	-----
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5450 feet  
Depth of completed well 5526 feet Rotary  / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 50 feet; Salt \_\_\_\_\_ feet  
Coal seam depths: 1250 - 1258 Is coal being mined in the area? No \_\_\_\_\_

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5010-5017 feet  
Benson <sup>5346-5364</sup>  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 671 Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure 310 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

(Continue on reverse side)

SEP 29 1986

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

Perforated Alexander 5340 - 5364, 26 holes, .39; Benson 5010 - 5017, 22 holes, .39  
 70Q Foam Frac Alexander - Breakdown 2400, Ave HHP 2 pumps, Ave Rate 20, Ave Pres 3400,  
 Max. Pres 3600, Total Acid 500 gal, Total Sand 90,000#, Max Conc. 4#/gal,  
 Total Fluid 503, SL Fluid 306, ISIP 1600, Total N<sub>2</sub> 844,000. Benson - Breakdown 2200,  
 Ave HHP 2 pumps, Ave Rate 20, Ave Pres. 3500, Max Tr. Pres. 4000, Total Acid 500 gal,  
 Total Sand 42,000#, Max Conc. 4#/gal, Total Fluid 285, SL Fluid 149, ISIP 3000\*,  
 Total N<sub>2</sub> 599,000 \*Screen out in formation had pumped approx. 110 bbl foam @ 4#/gal  
 before screenout occurred

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Sand, Shale & RR			0	1250	Including indication of all fresh and salt water, coal, oil and gas.
Coal			1250	1258	
Sand, Shale & RR			1258	2063	Coal 1250 - 1258 1/4" stream water @ 50'
Lime			2063	2075	
Shale			2075	2102	
Big Lime			2102	2175	
Injun			2175	2245	
Sand & Shale			2245	4820	
Riley			4820	4945	
Sand & Shale			4945	5011	
Benson			5011	5021	
Sand & Shale			5021	5526 T.D.	
<b>LOG TOPS</b> ✓					
Big Lime			2110	2178	
Big Injun			2178	2246	
Greenbrier Unconf.			2246	2296	
Weir			2296	2502	
Berea			2502	2630	
50' Sand			2630	2716	
Gordon Strra			2716	2790	
Gordon			2790	2850	
4th Ss			2886	2902	
5th Ss			--	--	
Bayard			3084	3106	
Warren			3376	3406	
Speechley			3710	3740	
Balltown			4000	4040	
Bradford			4464	4528	
Riley			4890	4916	
Benson			5006	5062	
Leopold			5170	5180	
Alexander ✓			5280	5388	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY  
Well Operator

By: [Signature]

Date: September 11, 1986

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  
 water, encountered in the drilling of a well."



1) Date: November 25, 1985  
2) Operator's Well No. 1627  
3) API Well No. 47-017-3483  
State County Permit

**RECEIVED**  
DEC - 4 1985

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

4) WELL TYPE: A Oil  Gas   
B (If "Gas", Production 1144.4  
Elevation: 1144.4  
District: Greenbrier 142  
County: Doddridge  
Underground storage / Indian Fork / Deep / Shallow /  
Watershed: / / / / /  
5) LOCATION: / / / / /  
6) WELL OPERATOR CNG Development Co CODE: 1010  
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 Mike Underwood  
Address Route 2, Box 114  
Salem, WV 26426  
9) DRILLING CONTRACTOR:  
Name Sam Jack Drilling Co.  
Address P.O. Box 48  
Buckhannon, WV 26201

10) PROPOSED WELL WORK: Drill  / Redrill  / Stimulate   
Plug off old formation. / Perforate new formation. /  
Other physical change in well (specify) \_\_\_\_\_  
11) GEOLOGICAL TARGET FORMATION, Alexander 439  
12) Estimated depth of completed well, 5450 feet  
13) Approximate true depths: Fresh, 25 ~ 194 feet; salt, 1480 feet.  
14) Approximate coal seam depths: 140, 730 feet. Is coal being mined in the area? Yes / No

CASING OR TUBING TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	For drilling	Left in well		
Conductor	11-3/4	H-40	42	225' 160'	225' 160'	To Surface	By Rule 15.05
Fresh water							
Coal							
Intermediate	8-5/8	X-42	23	1650	1650	To Surface	By Rule 15.05
Production	4-1/2	J-55	10.5	5450	5450	200-400	Depths set
Tubing	1-1/2	CN-55	2.75				By Rule 15.01
Lin...							Perforations: Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-017-3483 Date December 27 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 December 27, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee	WPCP	S&E	Other
	AS	AS	12257				

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.  
Director, Division of Oil and Gas





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WV Division of  
Environmental Protection

017-03483 F

FORM WW-3 SEP 29 1995

Page \_\_\_ of \_\_\_

STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

Permitted 10/16/95  
Expired 10/16/97

WELL WORK PERMIT APPLICATION

Office of Oil & Gas

Well Operator: CNG Producing Company 10140 4 352

21204

Operator's Well Number: CNEP 1627M 3) Elevation: 1144.4'

Well type: (a) Oil  / or X Gas

(b) If Gas: Production  / Underground Storage   
Deep  / Shallow

Proposed Target Formation(s): 432  
2802-2850  
3218-3268  
3614-3798 Gordon, Warren, Speechley

6) Proposed Total Depth: \_\_\_\_\_ feet

7) Approximate fresh water strata depths: \_\_\_\_\_

8) Approximate salt water depths: \_\_\_\_\_

9) Approximate coal seam depths: \_\_\_\_\_

10) Does land contain coal seams tributary to active mine? Yes  No

11) Proposed Well Work: Squeeze cement to cover intervals. Perforate and Frac proposed zones.

Clean well up and commingle with existing production.

12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	13-10"			236'	236'	To surface
Fresh Water						
Coal						
Intermediate	8 5/8"			1641'	1641'	To Surface
Production	4 1/2"			5519'	5519'	530 sks.
Tubing	1 1/2"			5321'	5321'	----
Liners						

PACKERS : Kind \_\_\_\_\_

Sizes \_\_\_\_\_

Depths set \_\_\_\_\_

6.00

Fee(s) paid: \_\_\_\_\_

Plat \_\_\_\_\_

Well Work Permit \_\_\_\_\_

Bond \_\_\_\_\_

Reclamation Fund \_\_\_\_\_

FOR Division of Oil and Gas Use Only

WPCP

Agent

(Type)

**RECEIVED**  
WV Division of  
Environmental Protection

SEP 29 1995

1) Date: 9/29/95  
2) Operator's well number  
3) API Well No: CNGP 1627M - 47 - 017 - 3483M  
State - County - Permit

Permitting  
Office of Oil & Gas  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: 5) (a) Coal Operator:

(a) Name Daniel L. Herron Name \_\_\_\_\_  
Address Suds Run Road Address \_\_\_\_\_  
Mt. Clare, WV 26408

(b) Name \_\_\_\_\_ (b) Coal Owner(s) with Declaration  
Address \_\_\_\_\_ Name Willis G. Tetric, Jr. et al

(c) Name \_\_\_\_\_ Address c/o Consolidated Coal Co.  
Address \_\_\_\_\_ Consol Plaza, Pittsburgh, PA 15241  
Name Cecil E. Knight, et al  
Address Rt. #3  
Salem, WV 26426

6) Inspector Mike Underwood (c) Coal Lessee with Declaration  
Address \_\_\_\_\_ Name \_\_\_\_\_  
Address \_\_\_\_\_

Telephone (304) - 782-1043  
Cellular Phone (304) - 288-4604

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:  
Personal Service (Affidavit attached)  
 Certified Mail (Postmarked postal receipt attached)  
Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator CNG Producing Company

BY: Rodney J. Biggs  
Its: Designated Agent, Production Manager, Appalachian Region  
Address Rt. 2, Box 698, Crosswind Corp. Park  
Bridgeport, WV 26330

Telephone (304) 623-8840

Subscribed and sworn before me this 25th day of September, 1995

Nancy D. Colten Nancy D. Colten  
My commission expires 09-26-2003



*Handwritten initials*