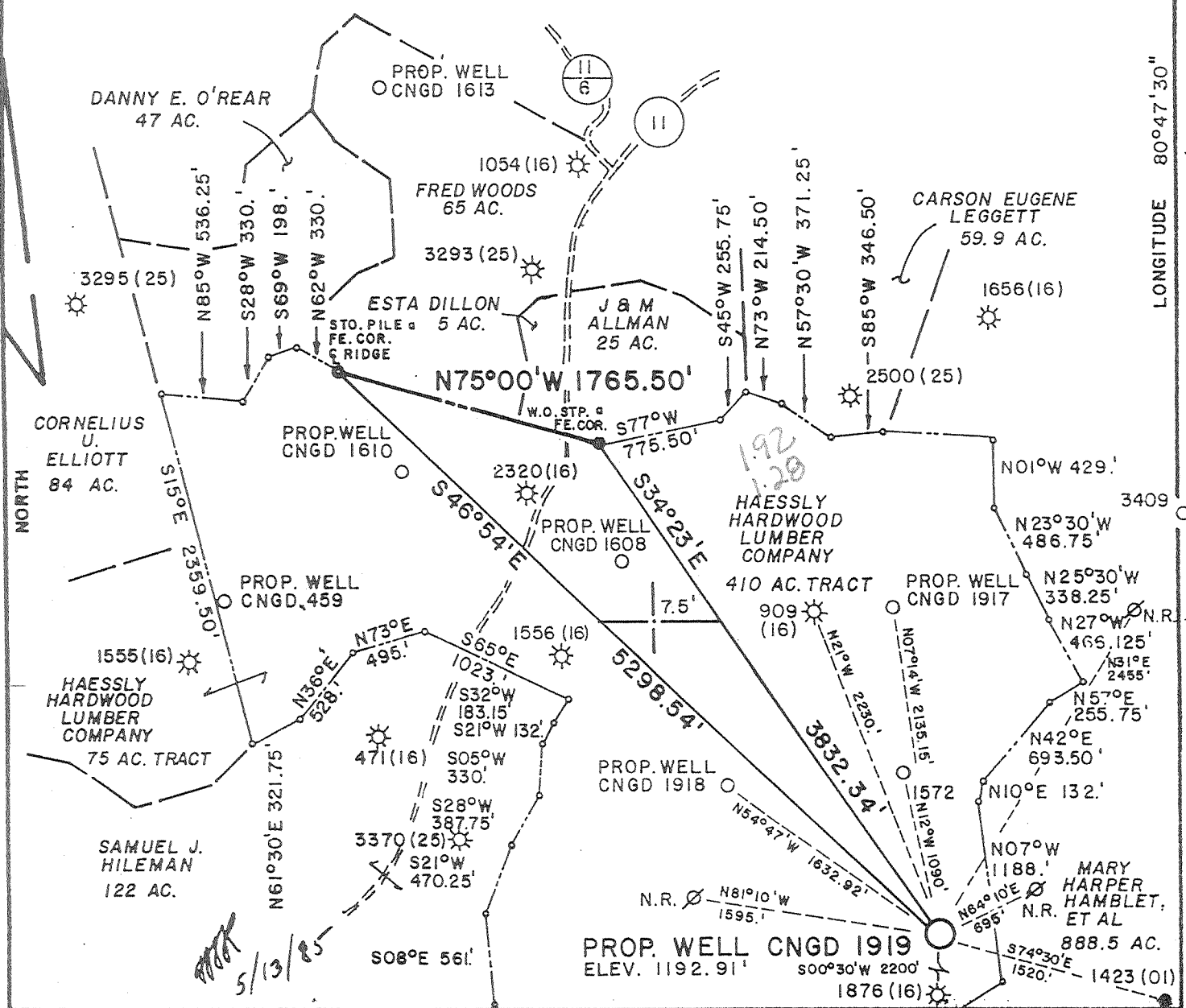


6,750'

LATITUDE 39°15'00"

*Jamil*  
*4/23/98*

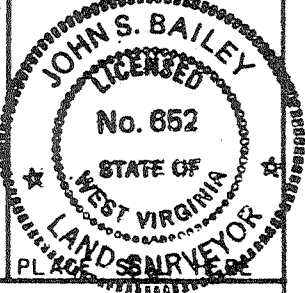
MAGNETIC REFERENCE TIES  
CNGD 1919 TO 16" C.O. N52°09'W 222.27'  
CNGD 1919 TO 14" R.O. S88°04'W 165.93'



LONGITUDE 80°47'30"  
1521.01

FILE NO. MSES 85-642  
 DRAWN BY SARC  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION BM ON CO. RT. 11; ELEV. 944'; 3500' NW OF LOCA.

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



WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 #10 McJUNKIN ROAD  
 NITRO, WEST VIRGINIA 25143-2506



DATE APRIL 22 19 85  
 OPERATOR'S WELL NO. CNGD 1919  
 API WELL NO. 47-01703442-7  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X)  
 LOCATION: ELEVATION 1192.91' WATER SHED RIGHT FORK  
 DISTRICT WEST UNION COUNTY DODDRIDGE  
 QUADRANGLE OXFORD, WV 7.5'  
 SURFACE OWNER HAESSLY HARDWOOD LUMBER SALES ACREAGE 485  
 OIL & GAS ROYALTY OWNER HAESSLY HARDWOOD LUMBER SALES LEASE ACREAGE 485  
 LEASE NO. 41979  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
 STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW  
 FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Well drilled in 1986 to 5450'. Producing oil well set with plug frac by John  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_ Comingle with State  
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5450'

*C.N.D. Producing*  
*P.O. Box 698*  
*Bridgeton WV 26330*

*Red Biggs*

DODD 3442 F

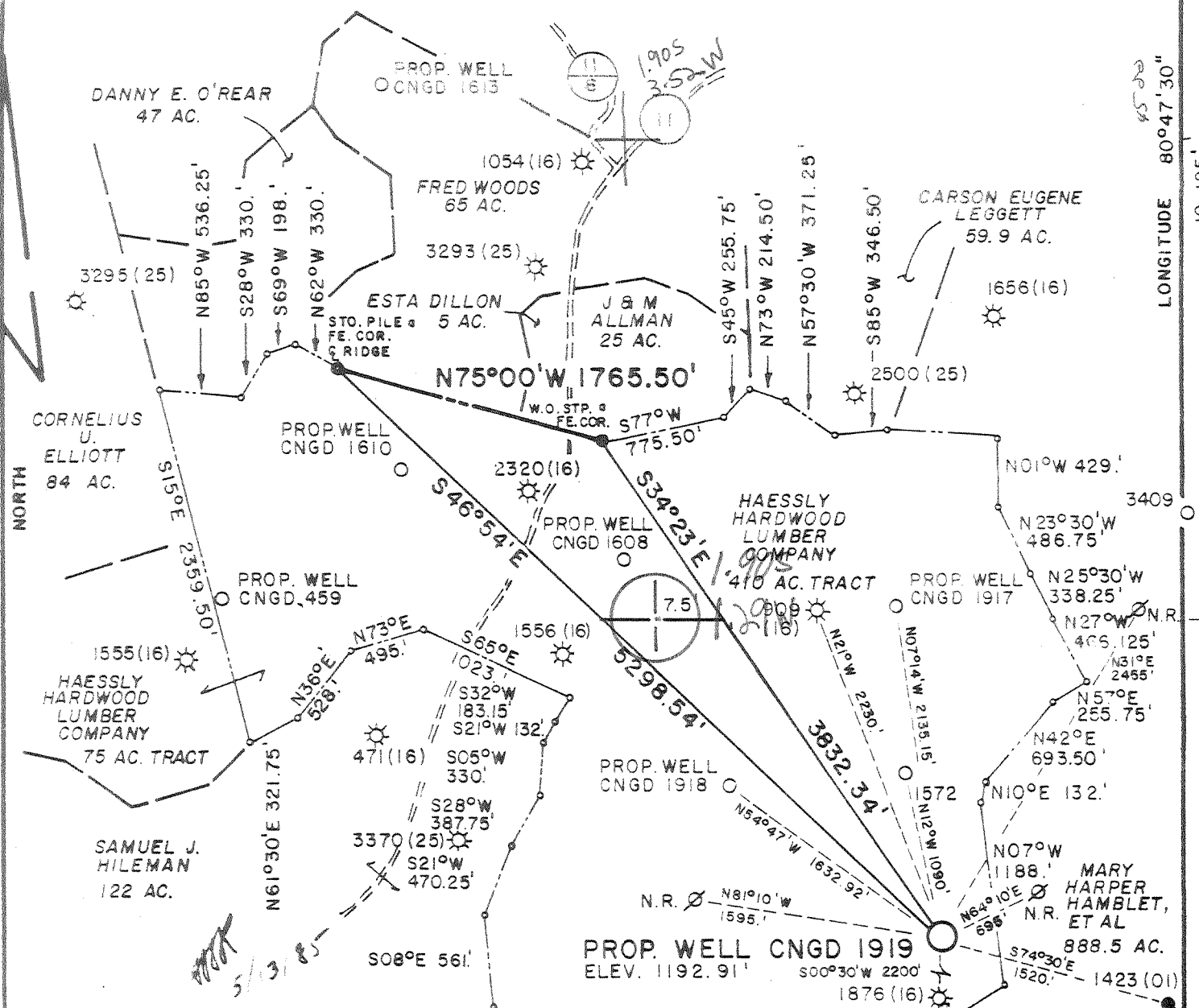
LATITUDE 39°15'00"

CODE CARD

PLOT

MAGNETIC REFERENCE TIES

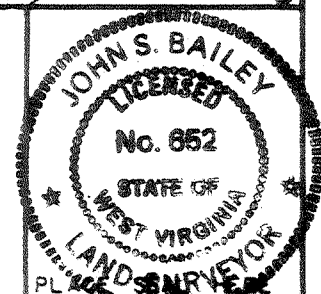
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LONGITUDE 80°47'30"

FILE NO. MSES 85-642  
 DRAWN BY SARC  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION BM ON CO. RT. 11; ELEV. 944'; 3500' NW OF LOCA.

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)



DATE APRIL 22 19 85  
 OPERATOR'S WELL NO. CNGD 1919  
 API WELL NO. 47-017-3442  
 STATE WEST VIRGINIA COUNTY \_\_\_\_\_ PERMIT \_\_\_\_\_

Department of Mines  
 Oil & Gas Division

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1192.91' WATER SHED RIGHT FORK  
 DISTRICT WEST UNION 8 COUNTY DODDERIDGE  
 QUADRANGLE OXFORD, WV 7.5' S26 Holbrook 058 NE3  
 SURFACE OWNER HAESSLY HARDWOOD LUMBER SALES ACREAGE 485  
 OIL & GAS ROYALTY OWNER HAESSLY HARDWOOD LUMBER SALES LEASE ACREAGE 485  
 LEASE NO. 41979  
 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 142 ESTIMATED DEPTH 5450' JUL 01 1985  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS ONE PARK RIDGE CENTER ADDRESS RT. 2, BOX 698  
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

WP-35

23-Apr-98  
API # 47- 17-03442 F

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

Well Operator's Report of Well Work

Farm name: Hassley Hardwood Lumber Operator Well No.: WV01919

LOCATION: Elevation: 1,192.90 Quadrangle: OXFORD

District: WEST UNION County: DODDRIDGE  
Latitude: 10125 Feet South of 39 Deg. 15Min. 0 Sec.  
Longitude 6750 Feet West of 80 Deg. 47 Min. 30 Sec.

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

Agent: RODNEY J. BIGGS

Inspector: MIKE UNDERWOOD  
Permit Issued: 04/23/98  
Well work Commenced: 07/29/98  
Well work Completed: 08/03/98  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary \_\_\_\_\_ Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) \_\_\_\_\_  
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.

OPEN FLOW DATA

Producing formation Injun Pay zone depth (ft) 1950-2020(20)  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow\* 84 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 4 Hours  
Static rock Pressure 60 psig (surface pressure) after 12 Hours  
\* Commingle with existing production  
Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: 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.

For: CNG PRODUCING COMPANY  
By: Rodney J Biggs, Production Manager, Appalachian Region  
Date: \_\_\_\_\_

080 2000  
0000 3442 F

08/31/98

CNGP WEVV01919

07/28/98 PULLED 152 JTS. 1 1/2" TUBING. CHECKED TD AT 5344'.  
07/29/98 MEEK'S SET SOLID PLUG AT 2060' AND PERFORATED INJUN AT 1956-2020',  
20 HOLES. BJ FRAC W/X-LINK GEL AS FOLLOWS:  
B.D. 1138 PSI, AVG RATE 21 BPM, AVG PRESS 2236 PSI, ISIP 2300#, TOT.  
SAND 25,000#.  
08/03/98 WELL FED 18 MCFD FROM WORKOVER ZONE. GAS TEST 84 MCFD.  
DRILLING ON BRIDGE PLUG.  
08/04/98 SAND PUMPING AND DRILLING ON BRIDGE PLUG.  
08/05/98 DRILLED OUT BRIDGE PLUG. T.D. WELL AT 5320'.  
08/06/98 T.B.I.L. MAKING 30 MCF/D.

FINAL REPORT



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

Perforate Alexander 5206-5210, 8 holes, 5195-5201, 8 holes, 5189-5193, 6 holes, 5171-5183, 20 holes (.39) HSC. Halliburton broke down Alexander 2200#, ISI 1000#, 13 BPM. Halliburton Foam Frac (70Q) Alexander - Break 2200, Avg TPSI 3475, Avg Rate 25 BPM, HHP used 1325, ISI 3800, screened off on flush, used 1000 gals 15% FE Acid, 9,000# 80/100 Sand, 133,000# 20/40 Sand, 935,000 SCFN<sub>2</sub>, Max Sand Conc. 7#/gal. Superior Perf. Benson 4885 - 4889, 10 holes, and Riley 4724 - 4732, 10 holes, .39 HSC. Halliburton Foam Frac (70Q) Benson & Riley Break 3500, Avg TPSI 3078, Avg Rate 20 BPM, HHP used 1132, ISI 3600, used 1000 gals 15% FE acid, 9000# 80/100, 100,000# 20/40, 675,000 SCFN<sub>2</sub>, Max Sand Conc. 6#/gal. Perf. Speechley 4048-4054, 12 holes, and 4021-4024, 9 holes (.39) HSC. Halliburton Foam Frac (70Q) Speechley - Break 2050, Avg TPSI 3300, Avg Rate 25 BPM, HHP used 1213, ISI 1050, 5 min 1050, used 500 gals 15% FE acid, 8000# 80/100 Sand, 80,000# 20/40 Sand, 570,000 SCFN<sub>2</sub>, Max Sand Conc. 6#/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
Sh, Sand & RR			0	1845	Damp @ 45'
Lime & Shale			1845	1965	" 820'
Sand & Shale			1965	5458	
LOG TOPS ✓					
Big Lime			1881	1950	
Big Injun			1950	2030	
Greenbrier Unconf.			2030		
Weir			2186	2303	
Berea			2386	2390	
Gordon			2593	2626	
4th Sand			2760	2769	
Warren			3250	3360	
Speechley			4020	4070	
Balltown			4218	4250	
Bradford			4438		
Riley			4716	4734	
Benson			4880	4934	
Leopold			5080	5094	
Alexander			5140	5218	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By: *[Signature]*

Date: Oct. 14, 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 coal, encountered in the drilling of a well."



1) Date: May 17, 1985  
 2) Operator's Well No. 1919  
 3) API Well No. 47 - -017-3442  
 State County Permit

**RECEIVED**

MAY 23 1985

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

OIL & GAS DIVISION

- 4) WELL TYPE: TA OF MINI Gas X /  
 B (If "Gas", Production X / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X /)
- 5) LOCATION: Elevation: 1193 Watershed: Right Fork  
 District: West Union County: Doddridge Quadrangle: Oxford
- 6) WELL OPERATOR CNG Development Company  
 Address c/o Paul W. Garrett, P.O. Box 15746  
Pittsburgh, PA 15244 10110
- 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 X / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate X /  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_ /  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Alexander
- 12) Estimated depth of completed well, 5450 feet
- 13) Approximate trata depths: Fresh, - feet; salt, 1458, 1600 feet.
- 14) Approximate coal seam depths: - Is coal being mined in the area? Yes \_\_\_\_\_ / No X /

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	<u>11-3/4</u>	<u>H-40</u>	<u>42</u>	<u>X</u>		<u>160</u>	<u>200</u>	<u>To Surface</u>	<u>By Rule 15.05</u>
Coal									Sizes
Intermediate	<u>8-5/8</u>	<u>X-42</u>	<u>23</u>	<u>X</u>		<u>1700</u>	<u>1700</u>	<u>To Surface</u>	<u>By Rule 15.05</u>
Production	<u>4-1/2</u>	<u>J-55</u>	<u>10.5</u>	<u>X</u>		<u>5450</u>	<u>5450</u>	<u>200-400</u>	Depths set:
Tubing	<u>1-1/2</u>	<u>CN-55</u>	<u>2.75</u>	<u>X</u>					<u>By Rule 15.01</u>
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-017-3442 Date June 18 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 June 18, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>28</u>	<u>A/B</u>	<u>M/M/M</u>	<u>8423</u>	

*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