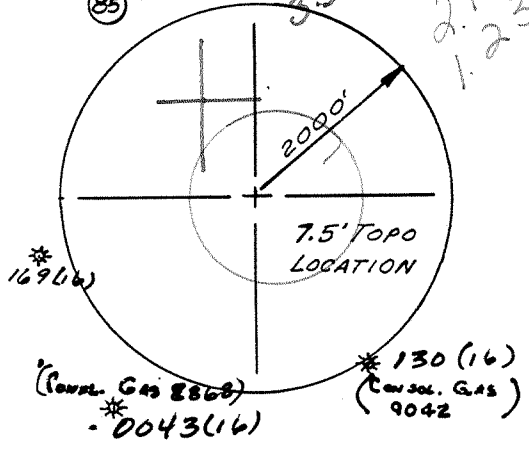
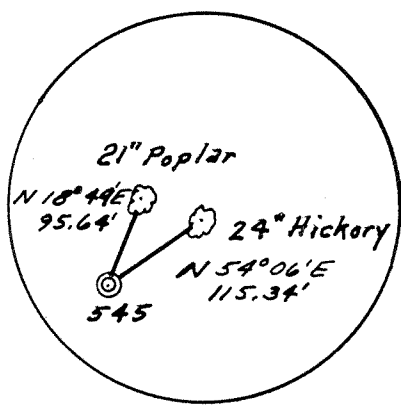


REFERENCES



NOTE: COORDINATES ARE FROM POCAHONTAS LAND CORPORATION SYSTEM

FILE NO. 03-0015  
 DRAWING NO. 17  
 SCALE 1"=2000'  
 MINIMUM DEGREE OF ACCURACY 1" IN 2500'  
 PROVEN SOURCE OF ELEVATION USGS BM ELEV 2414

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 F. [Signature]  
 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 JUNE 7, 1984  
 OPERATOR'S WELL NO. CNDG 545  
 API WELL NO. 47-109-0951  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS", PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X)  
 LOCATION: ELEVATION 2195.26 WATER SHED TONEY FORK  
 DISTRICT OGEANA COUNTY WYOMING  
 QUADRANGLE PILOT KNOB 547 Bald Knob 15' SEa  
 SURFACE OWNER POCA LAND CORPORATION ACREAGE 34,580  
 OIL & GAS ROYALTY OWNER POCA LAND CORPORATION LEASE ACREAGE 34,580  
 LEASE NO. 54713  
 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 RAVENCLIFF ESTIMATED DEPTH 2415' JAN 7 1985  
 WELL OPERATOR CNG DEVELOPMENT CO DESIGNATED AGENT GARY A NICHOLAS  
 ADDRESS ONE PARK RIDGE CENTER ADDRESS CROSSWIND CORPORATE PARK  
142 PITTSBURGH, PA 15224 RTE 2 BOX 698 BRIDGEPORT WVA 26330  
 ALLIEN BLUEPRINT Co. L.L. McGraw (248) Charleston, WV

IV-35  
(Rev 8-81)

**RECEIVED**  
JUN 21 1985

OIL & GAS DIVISION  
DEPT. OF MINES



State of West Virginia  
Department of Mines  
Oil and Gas Division

Date May 3, 1985  
Operator's  
Well No. CNGD WN 545  
Farm Loup Creek Colliery Co.  
API No. 47 - 109 - 0951

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: 2195.26 Watershed Toney Fork  
District: Oceana County Wyoming Quadrangle Pilot Knob

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 Poca Land Corp.  
ADDRESS P.O. Box 1517, 24701 Bluefield, WV  
MINERAL RIGHTS OWNER Poca Land Corp.  
ADDRESS P.O. Box 1517 Bluefield, WV 24701  
OIL AND GAS INSPECTOR FOR THIS WORK  
Arthur St. Clair ADDRESS P.O. Box 468, 24818 Brenton, WV  
PERMIT ISSUED 12-19-84  
DRILLING COMMENCED 4-3-85  
DRILLING COMPLETED 4-10-85  
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 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1691	1691	To Surf.
7			
5 1/2			
4 1/2	2423	2423	120 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Ravencliff Depth 2415 feet  
Depth of completed well 2427 feet Rotary X / Cable Tools     
Water strata depth: Fresh    feet; Salt    feet  
Coal seam depths: 15 - 16 191 - 194 1565 - 1569 Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Ravencliff Pay zone depth 2294 - 2300 2187 - 220 feet  
Gas: Initial open flow    Mcf/d Oil: Initial open flow    Bbl/d  
Final open flow 160 Mcf/d Oil: Final open flow    Bbl/d  
Time of open flow between initial and final tests    hours  
Static rock pressure 130 psig (surface measurement) after 48 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) JUN 08 1985

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

Young Wireline Perf. Ravencliff 2294 - 2300; 10 holes (.39)  
Princeton 2187 - 2201; 10 holes (.39)

Halliburton 75Q Foam Frac - Ravencliff - Break - Zero, well broke over night w/hydrostatic psi, HHP 1000, Avg. BPM 12, Avg psi 2300, 500 gal 15% HCL, 28,000# 20/40 Sand, 600 BBL Foam, ISIP pre job w/water 0, ISIP post job w/water 3500, N2 (MSCF) 251. Ravencliff (Screened off) Princeton - Break 300, HHP 1000, Avg BPM 16, Avg psi 2750, 500 gal 15% HCL, 50,000# 20/40 Sand, 832 BBL Fluid, ISIP pre job w/water 900, ISIP post job w/water 2100, N2(MSCF) 470

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Overburden			0	10	
Shale			10	15	
Coal			15	16	
Sand, Shale			16	191	
Coal			191	194	
Sand, Shale			194	1565	
Coal			1565	1569	
Sand, Shale			1569	2277	
Ravencliff			2277	2305	
Lime			2305	2340	
Shale			2340	2427	
<u>LOG TOPS</u>					
Princeton			2177	2203	
Raven Cliff			2239	2303	
Avis Lime			2303	2336	

2427  
Ravencliff @ TD.

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By: Greg A. [Signature]

Date: May 3, 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."

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NOV 30 1984



1) Date: November 20, 19 84
2) Operator's Well No. 545
3) API Well No. 47 - 109 - 0951
State County Permit

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

APPLICATION FOR A WELL WORK PERMIT

OIL & GAS DIVISION

DEPT. OF MINES

Gas X

B (If "Gas", Production X) Underground storage Deep Shallow X

5) LOCATION: Elevation: 2195.26 Watershed: Toney Fork
District: Oceana County: Wyoming Quadrangle: Pilot Knob

6) WELL OPERATOR CNG Development Co.
Address c/o Paul 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 Arthur St. Clair Address P.O. Box 468 Brenton, WV 24818
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, Ravencleft
12) Estimated depth of completed well, 2415 feet
13) Approximate strata depths: Fresh, 50 feet; salt, feet.
14) Approximate coal seam depths: 1400, 1475, 1580 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 47-109-0951 Date December 19, 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.

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 19, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Table with columns: Bond (28), Agent (MH), Plat (MH), Casing (MH), Fee (004-978)

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