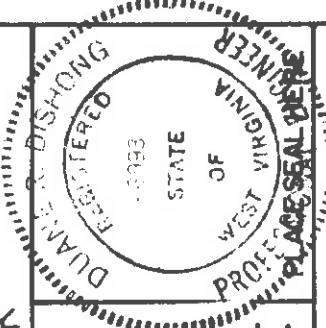


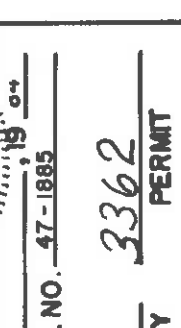
FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1" IN 200'
 PROVEN SOURCE OF ELEVATION RD. INTER. 3,600' SW OF LOC., ELEV. 914'

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) James R. Dishong
 R.P.E. 8993 L.L.S.



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

DATE 9-14 19 04
 OPERATOR'S WELL NO. 47-1885
 API WELL NO. 47 017 STATE 47 COUNTY PERMIT 3362



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 970 WATER SHED DAVIS RUN
 DISTRICT WEST UNION COUNTY DODDRIDGE
 QUADRANGLE OXFORD 526 HOLBROOK 058 ACRES 1500
 SURFACE OWNER JUSTIN M. HENDERSON
 OIL & GAS ROYALTY OWNER JUSTIN M. HENDERSON, et al. LEASE ACREAGE 2.164
 LEASE NO. 6764

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 ESTIMATED DEPTH 5,000'
 WELL OPERATOR CARNEGIE NATURAL GAS CO. DESIGNATED AGENT J.C. STEPHENSON, DIV. SUPT.
 ADDRESS 157 900 REGIS AVE. ADDRESS P.O. BOX 387
 PGH., PA. 15236 MANNINGTON, WY 26582

64 Straight Fork - Bluestone Creek (133)

OCT 22 1984

L.E.M.

RECEIVED

MAR 4 - 1985



OIL & GAS DIVISION
DEPT. of MINES
State of West Virginia
Department of Mines
Oil and Gas Division

Date February 25, 1985
Operator's Well No. 47-1885
Farm Leeman Maxwell
API No. 47-017 - 3562

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: 970' Watershed Davis Run
District: West Union County Doddridge Quadrangle Oxford

COMPANY Carnegie Natural Gas Company
ADDRESS 800 Regis Ave., Pgh., PA 15236
DESIGNATED AGENT J. C. Stephenson
ADDRESS Box 387, Mannington, WV 26582
SURFACE OWNER Mary H. Holland
ADDRESS 308 Church St., W. Union, WV 26456
MINERAL RIGHTS OWNER Mary H. Holland, et al
ADDRESS 308 Church St., W. Union, WV 26456
OIL AND GAS INSPECTOR FOR THIS WORK Mike
Rt. 2, Box 114
Underwood, ADDRESS Salem, WV 26426
PERMIT ISSUED October 16, 1984
DRILLING COMMENCED November 1, 1984
DRILLING COMPLETED November 10, 1984

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
20-16			ft.
Cond.			
1 3/4" x 3 1/8"	153.80	153.80'	153.80
9 5/8			
8 5/8	1536.00	1536.00	1536.00
7			
5 1/2			
4 1/2		4979.90	2400'
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5000 feet
Depth of completed well 5008 feet Rotary X / Cable Tools
Water strata depth: Fresh 50 feet; Salt
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation See Frac Data Pay zone depth See feet
Gas: Initial open flow 74.4 Mcf/d Oil: Initial open flow - Bbl/d
Final open flow 1838 Mcf/d Final open flow - Bbl/d

Time of open flow between initial and final tests 72 hours
Static rock pressure 1410 psig (surface measurement) after 72 hours shut in
(If applicable due to multiple completion--)

Second producing formation See Frac Data Pay zone depth See feet
Gas: Initial open flow 74.4 Mcf/d Oil: Initial open flow - Bbl/d
Final open flow 1838 Mcf/d Oil: Final open flow - Bbl/d

Time of open flow between initial and final tests MAR 18 1985 hours
Static rock pressure 1410 psig (surface measurement) after 72 hours shut in

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
Foam fractured by Dowell-Schlumberger on 11-27-84

First Stage: Perf 4848'-92' W/12 (Alexander); 4566'-67' W/2 (Benson);
12 Bbls Acid; 181 Bbls. Water; 5,500 Sxs. Sand; 562,500 SCF N₂.
Second Stage: Perf 3865'-68' W/5 (Bradford); 3681'-86' W/5 (Balltown)
3449'-52' W/4 (Tiona); 10 Bbls. Acid; 174 Bbls. Water; 3,500 Sxs. Sand;
364,350 SCF N₂.
Third Stage: Perf 2933'-3044' W/14 (Warren); 10 Bbls. Acid; 245 Bbls
Water; 4,600 Sxs. Sand; 272,750 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
Dirt			0'	5	
Sand			5	12	
Red Rock			12	14	
Sand			14	17	
Red Rock			17	67	Water 50'-55' (Fresh)
Red Rock			67	88	
Sand			88	92	
Shale			92	225	
Sand			225	324	
Shale			324	338	
Red Rock Shale			338	353	
Sand			353	438	
Red Rock Shale			438	478	
Sand			478	594	
Red Rock Shale			594	600	
Shale			600	608	
Sand			608	612	
Shale			612	631	
Sand			631	634	
Shale			634	637	
Sand			637	685	
Shale			685	719	
Sand			719	850	
Shale			850	874	
Sand			874	905	
Shale			905	973	
Sand			973	1033	
Shale			1033	1139	
Sand			1139	1497	
Shale			1497	1524	
Shale			1524	1537	
Little Lime			1537	1614	
pencil Cave			1614	1694	
Big Lime			1694	2905	
Big Injun			2905	3148	
Sand & Shale			3148	3844	
Warren			3844	3947	
Sand & Shale					
1st. Bradford					

(Attach separate sheets as necessary)

CARNEGIE NATURAL GAS COMPANY
Well Operator

By: _____
Date: _____

Note: Regulation 2.02(t) provides as follows:
"The term 'log' or 'well log' shall mean a systematic
detailed geological record of all formations, including
strata, encountered in the drilling of a well."

(REVERSE)

Well No. 47-1885
47-017-3362 Cont.

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

g.2

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale Alexander Shale	3947 4815 4910	4815 4910 5008'	
TOTAL DEPTH		5008'	

(Attach separate sheets as necessary)

CARNEGIE NATURAL GAS COMPANY
Well Operator

By: *Kenneth A. Dunay*

Date: February 25, 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
 all, encountered in the drilling of a well."

MAR 18 1985



1) Date: September 24, 1984
 2) Operator's Well No. 47-1885
 3) API Well No. 47-017-3362 State County Permit

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

4) WELL TYPE: A Oil Gas B (If "Gas", Production Shallow Deep
 5) LOCATION: Elevation: 970' Watershed: Davis Run of Blount Creek OM: 43
 District: West Union County: Doddridge Quadrangle: Oxford
 6) WELL OPERATOR Carnegie Natural Gas Co. 7) DESIGNATED AGENT J. C. Stephenson
 Address 800 Regis Avenue Address Box 387
Pittsburgh, Pa. 15236
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Mike Underwood 9) DRILLING CONTRACTOR:
 Address Route 2 - Box 114 Name Spencer Enterprises
Salem, W. Va. 26426 Address West Union, W. Va. 26456

10) PROPOSED WELL WORK: Drill / Drill deeper / Plug off old formation / Perforate new formation / Stimulate

11) GEOLOGICAL TARGET FORMATION, Alexander
 12) Estimated depth of completed well, 5000 feet
 13) Approximate true depths: Fresh, 100 feet; salt, feet.
 14) Approximate coal seam depths: None 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.	For drilling	Left in well		
Conductor							
Fresh water	11-3/4"	H-40	42	X	150'	150'	Kinds <u>CTS NEAT</u>
Coal							Sizes
Intermediate	8-5/8"	J-55	24	X	1550'	1550'	Depths set
Production	4 1/2"	J-55	10.5	X	5000'	2000'	<u>or as required by rule</u>
Tubing							Perforations: <u>150'</u>
Liners							Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3362

October 16, 19 84
 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 October 16, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <input checked="" type="checkbox"/>	Plat:	Casing	Fee
<u>32</u>	<u>MW</u>	<u>MW</u>	<u>MW</u>	<u>148530</u>

Margaret J. Hagan
 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

