



Minimum Error of Closure 1 in 200'

Source of Elevation U.S.G.S. B.M. on Ridge Road - 1172

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

Signed: [Signature]
 Squares: N 8 E W

Map No.

Company	<u>Carnegie Natural Gas Co.</u>
Address	<u>Murkall, Penna.</u>
Farm	<u>Leeman Maxwell</u>
Tract	Acres <u>2164</u> Lease No. <u>6764</u>
Well (Farm) No.	<u>37</u> Serial No. <u>1763</u>
Elevation (Spirit Level)	<u>1057'</u>
Quadrangle	<u>Halbrook NE</u>
County	<u>Dodridge</u> District <u>West Union</u>
Engineer	<u>[Signature]</u>
Engineer's Registration No.	<u>1227</u>
File No.	Drawing No.
Date	<u>Aug 18, 1972</u> Scale <u>1" = 500'</u>

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

WELL LOCATION MAP

FILE NO. 200-1682

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

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39-13
3-4

Oil and Gas Division

WELL RECORD 4

Quadrangle HOLBROOK N. E.

Permit No. DODD-1682

Rotary Oil
Cable _____ Gas C. NO. 11
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Company CARNEGIE NATURAL GAS COMPANY
Address 3904 MAIN ST., MUNHALL, PENNA. 15120
Farm LEEMAN MAXWELL Acres. 216 1/4
Location (waters) Bluestone Creek
Well No. 37-1763 Elev. 1057'
District West Union County Doddridge
The surface of tract is owned in fee by _____

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10" 10.750"	2 1/4	2 1/4	175 sxs 2 1/4'
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2	1736	1736	170 sxs 869'
3			
2			
Liners Used			

Address _____
Mineral rights are owned by _____
Address _____

Drilling Commenced 8/26/72
Drilling Completed After Frac. 10/18/72
Initial open flow 553 M cu. ft. none bbls.
Final production 1,391 M cu. ft. per day none bbls.
Well open _____ hrs. before test 570 RP.

Well treatment details:

Attach copy of cementing record.

Well fractured 10/17/72 by Dowell with 30,000# 20-40 sand and 655 bbls of water in Big Injun Sand. Results above.

Perf: 1670'-1678' 5 Shots
1702'-1712' 5 Shots

Coal was encountered at None Feet _____ Inches _____
Fresh water ? Feet _____ Salt Water ? Feet _____
Producing Sand Big Injun Depth 1639 - 1714'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Rock			0	45		
Sand			45	67		
Slate			67	120		
Slate & Shells			120	159		
Slate			159	179		
Red Rock			179	226		
Sand			226	242		
Red Rock			242	260		
Slate & Shells			260	290		
Red Rock			290	310		
Sand			310	318		
Red Rock			318	349		
Slate & Shells			349	498		
Red Rock			498	512		
Slate & Shells			512	527		
Slate			527	561		
Sand			561	576		
Slate			576	670		
Red Rock			670	701		
Sand			701	714		
Slate & Shells			714	736		
Slate			736	765		
Sand Lit. Dunk			765	773		

(over)

* Indicates Electric Log tops in the remarks section.

FEB 8 1973

Formation	Color	Hard or Soft	Top Feet ⁴	Bottom Feet	Oil, Gas or Water	* Remarks
Slate			773	788		
Sand Big Dunk			788	819		
Slate			819	849		
Slate & Shells			849	870		
Slate			870	879		
Slate			879	901		
Slate & Shells			901	915		
Sand			915	990		
Slate & Shells			990	1399		
Sand 2nd Salt			1399	1435	Gas	1428'-1432'
Slate & Shells			1435	1490		
Sand Max.			1490	1516	Gas	1493'
Slate & Shells			1516	1528		
Little Lime			1528	1552		
Sand Blue Monday			1552	1558		
Pencil Cave			1558	1573		
Big Lime			1573	1639		
Big Injun Sand			1639	1714	Gas	1640'-1648'; 1671'-1676'; 1704'-13
Slate & Shells			1714	1737		
				T.D.		

Date January 24, 1973

APPROVED CARNEGIE NATURAL GAS COMPANY, Owner

By R. B. Ludwig Geologist
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE July 25, 1972

Surface Owner Mary A. Holland

Company Carnegie Natural Gas Co.

Address West Union, W. Va.

Address 3904 Main St., Munhall, Pa. 15120

Mineral Owner Leeman Maxwell Heirs

Farm Leeman Maxwell Acres 2164

Address West Union, W. Va.

Location (waters) _____

Coal Owner No commercial coal

Well No. 37-1763 Elevation 1057

Address _____

District West Union County Doddridge

Coal Operator _____

Quadrangle Holbrook, N.E.

Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 11-26-72

H. S.
Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED William Blosser
Colfax, W.Va. PH: 363-9105

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated March 4 1899 by Leeman and Mary C. Maxwell made to J. A. Connolly and recorded on the 12th day of June 1899, in Doddridge County, Book 14 Page 327

NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours, Carnegie Natural Gas Company

(Sign Name) J. D. Sweeney
Well Operator Div. Supt.

Address
of
Well Operator

3904 Main St.
Street
Munhall
City or Town
Pennsylvania 15120
State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

DOD-1682

PERMIT NUMBER

**THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME _____ NAME W. L. Yoho, Foreman
 ADDRESS _____ ADDRESS Toll Gate, W. Va.
 TELEPHONE _____ TELEPHONE 659-2921
 ESTIMATED DEPTH OF COMPLETED WELL: 2350 ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Gordon
 TYPE OF WELL: OIL _____ GAS COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10 <u>10.750</u>	<u>20</u>		
9 - 5/8			
8 - 5/8	<u>250</u>	<u>250</u>	<u>cemented to surface</u>
7	<u>1610</u>		
5 1/2			
4 1/2	<u>2350</u>	<u>2350</u>	<u>700</u>
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS ? FEET _____ SALT WATER ? FEET _____
 APPROXIMATE COAL DEPTHS No commercial coal
 IS COAL BEING MINED IN THE AREA? _____ BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title